
Canadian Niagara Power Inc. – Transmission

Transmission Connection Procedures

March 31, 2022

Canadian Niagara Power Inc. ("CNP") advises that this document reflects the Transmission System Code as amended by the OEB up to and including on December 18, 2018; 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, including any further amendments that may be made to the Transmission System Code..

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CNP Transmission Connection Procedures

Introduction

CNP's Transmission Connection Procedures ("TCP") have been developed to meet the requirements of the Ontario Energy Board's (the "Board" or the "OEB") Transmission System Code (the "Code"), last revised December 18, 2018, which requirements are outlined in Section 6 (Customer Connections) of the Code.

This TCP document applies to the processing of requests from customers (the "Connection Applicants") for a new connection or for a modification to an existing connection to CNP's transmission system. In particular, the TCP describes CNP's customer connection process and addresses the requirements listed in Section 6.1.4 of the Code. Those requirements specify that a transmitter's connection procedures shall include:

- (a) a Total Normal Supply Capacity Procedure;
- (b) an Available Capacity Procedure;
- (c) a Security Deposit Procedure;
- (d) a Customer Impact Assessment Procedure;
- (e) an Economic Evaluation Procedure;
- (f) a Contestability Procedure;
- (g) a Reconnection Procedure;
- (h) a Dispute Resolution Procedure;
- (i) an obligation on the transmitter to provide a customer with the most recent version of the Regional Infrastructure Plan or Integrated Regional Resource Plan referred to in Section 3C of the Code, if any, that covers 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 time for facilities.

In addition, these procedures are consistent with and complementary to the IESO's Market Rules and market procedures as they relate to transmission connections.

The IESO's Customer Assessment and Approval ("CAA") process is documented in its Market Manual 1: Part 1.4: Connection Assessment and Approval, which can be found on the IESO website at www.ieso.ca. The IESO's CAA process is a separate process from CNP's TCP; however, CNP works closely with the IESO on customer connections. Although the IESO process is briefly noted below in Process Step 2, it is for information only and Connection Applicants should refer to the IESO's current CAA process documentation.

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 CNP by completing a Customer Connection Application** in order to ensure compliance with Market Rules and the Code, to estimate the transmitter's cost and to schedule the transmitter resources needed to complete the connection to CNP's transmission system.

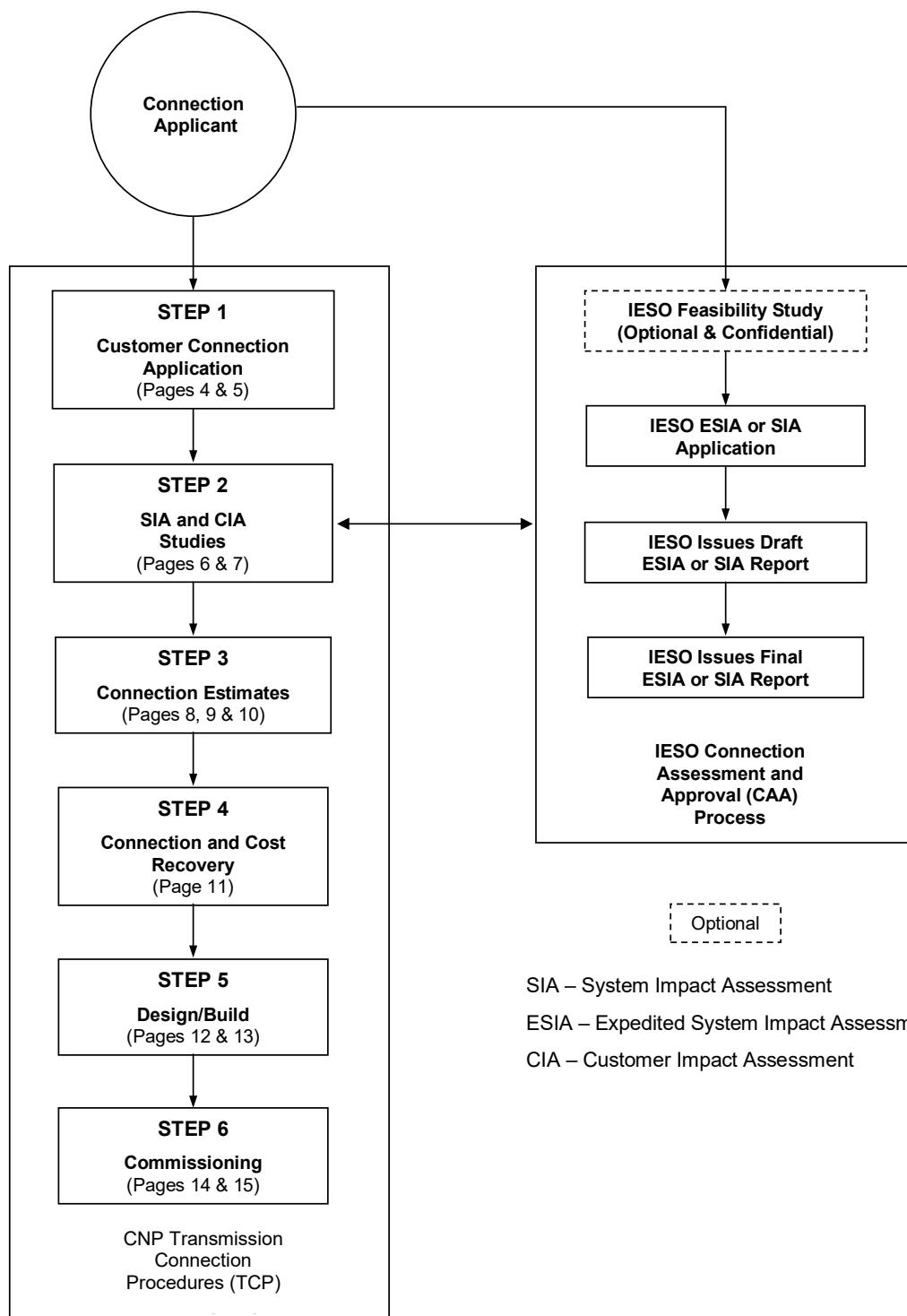
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CNP's customer connection process is outlined in Flowchart 1 on the next page. This TCP document, when approved by the Board, will be available on CNP's website at www.cnpower.com.

Capitalized terms in this document that are not defined herein shall have the meaning ascribed to them in the Code or the IESO's Market Rules or Market Manuals, as applicable.

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FLOWCHART 1 – CNP’s CUSTOMER CONNECTION PROCESS



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1 Step 1 – Customer Connection Application

1.1 Introduction

The Connection Applicant will complete CNP's Customer Connection Application Form to initiate the transmission connection process with CNP. A single consultation meeting between CNP 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 CNP's transmission system based on IESO criteria for an Expedited System Impact Assessment; and
- an overview of CNP's TCP.

At or following the consultation meeting, CNP 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 may request a new or modified connection to CNP's transmission system by carrying out the procedure herein. The Customer Connection Application Form can be downloaded from CNP's website www.cnpower.com.
- 1.2.2 The Connection Applicant will complete the Customer Connection Application to provide CNP with initial information about their requested new or modified facilities prior to the consultation meeting.
- 1.2.3 CNP and the Connection Applicant will meet to discuss the Customer Connection Application as outlined in section 1.1 above. CNP will be prepared to discuss the transmission system in the vicinity of the proposed connection, to identify any issues related to the Connection Applicant's proposal and to provide the Connection Applicant with information on any pertinent transmission projects in the area. In addition, further to its obligation under section 6.1.4(i) of the Code, CNP will provide the Connection Applicant with the most recent version of the Regional Infrastructure Plan or Integrated Regional Resource Plan referred to in section 3C of the Code, if any, that covers the applicable portion of the transmission system.
- 1.2.4 The Connection Applicant shall provide missing information or clarification of submitted information to CNP upon request. If specific information cannot be provided, CNP may

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propose suitable typical values to be used in CNP's TCP – Procedure P4 – Customer Impact Assessment. It is the responsibility of the Connection Applicant to ensure that its facility is designed and constructed in accordance with values that are acceptable to the transmitter and the IESO.

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

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2 Step 2 – SIA and CIA Studies

2.1 Introduction

The IESO's System Impact Assessment ("SIA") and CNP's Customer Impact Assessment ("CIA") are linked in this step of CNP's TCP. Some of the work CNP 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 CAA process documented in the IESO's Market Manual 1: Part 1.4: Connection Assessment and Approval. This can be found on the IESO website at www.ieso.ca.

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

2.3 CNP Customer Impact Assessment ("CIA")

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

- i. which is subject to the IESO's CAA process and requires an SIA; or
- ii. where CNP determines that the proposed connection or modification may have an impact on existing customers.

If the IESO determines an ESIA (no formal study) is sufficient, then a CIA is not required unless CNP determines there is an impact on the existing transmission customers. If a CIA is not performed, CNP 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 is required to sign an SIA/CIA Agreement with CNP before the SIA is conducted by the IESO. The SIA/CIA Agreement will cover CNP's work associated with the IESO ESIA/SIA and the CNP 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.

CNP will consult with the Connection Applicant regarding the timing for the CIA work. Generally, 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 revisions made in the final SIA report, CNP will require additional time to revise the CIA report at the Connection Applicant's expense.

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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 CNP.
- 2.4.2 The Connection Applicant requests CNP to prepare an SIA/CIA Agreement which will allow CNP to recover its costs associated with supporting the IESO's preparation of the SIA and CNP's preparation of the CIA. CNP will not invoice the IESO for any amounts attributable to CNP carrying out studies related to the SIA as it relates to this section 2.4.2 and section 2.4.3.
- 2.4.3 CNP and the Connection Applicant will execute an 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 with a copy to CNP 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 in writing that CNP conduct the CIA as described in TCP – Procedure P4 – Customer Impact Assessment (CIA) Procedure and based on CNP 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.

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3 Step 3 – Connection Estimates

3.1 Introduction

The Connection Estimates step provides the Connection Applicant with initial estimates (typically at +/- 20%) of the cost of CNP's facilities required for connection, including an economic evaluation of the financial contribution requirements or cost sharing arrangement for 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 SIA and CNP CIA will be included in the estimate scope.

3.2 Load Connections

When a Load Connection Applicant requests a connection in writing from CNP, CNP shall provide (at no cost to the Connection Applicant) if required, a description of the work that is contestable and the work that is uncontestable as per TCP – Procedure 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 – Procedure – 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 estimate.

3.3 Generator Connections

When a Generator Connection Applicant requests a connection in writing from CNP, CNP will provide, at cost to the Connection Applicant, estimates of the capital cost of the new or modified connection to CNP's 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.

Where CNP constructs an enabler facility (as defined in section 2.0.28A of the Code), the cost to be attributed to generator customers (under the Code section 6.3.14A) shall be the fully allocated cost of the enabler facility, in accordance with the requirements of the Code section 6.5.1A.

Where one or more customers triggers the need for a new or modified connection facility and the IESO undertakes an assessment at the request of CNP that confirms the new or modified connection facility will also address a broader network system need, CNP shall determine the proportional benefit and the related attribution of costs between the triggering customer(s), collectively, and the network pool. CNP shall then attribute the collective triggering customer costs to each triggering customer(s). When this applies, CNP shall apply to the Board for approval of the attribution of costs between the triggering customer(s) and the network pool. Where the Board approves a different attribution of costs, CNP shall recalculate the capital contribution to be made by the triggering customer(s). (Code sections 6.3.18 and 6.3.18A)

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3.4 Connection Estimate Procedure:

3.4.1 The Connection Applicant may request in writing to CNP that connection estimates be prepared and, for Load Connection Applicants, that the TCP – Procedure 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. CNP will provide an estimate of costs to modify its existing connection facilities based on the Connection Applicant designing (based on CNP specifications), constructing and owning the new or modified connection assets external to CNP's existing facilities,

and/or

ii. CNP will provide an estimate of costs based on CNP 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 CNP.

3.4.2 CNP will implement the TCP – Procedure P6 – Contestability Procedure (Load Customers) if the Load Connection Applicant requests estimates based on section 3.4.1 ii to determine which work is contestable and which is uncontestable.

3.4.3 CNP 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 CNP'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 is typically +/- 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 TCP Agreement Template). The Connection Applicant will provide an electronic copy of the electrical package / connection requirements identified in section 3.4.3 above at least five working days ahead of the "Scope" meeting.

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- 3.4.5 CNP will review the Connection Applicant's submitted electrical package / connections requirements for the connection interface. If there are changes required to the connection interface, CNP will convey the changes to the Connection Applicant who will make the changes and submit the revised electrical package / connection requirements.
- 3.4.6 CNP 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 Applicant if applicable.
- 3.4.7 The Connection Applicant will return a signed copy of the final CEA to CNP by the execution date, and remit any required deposit in accordance with the final CEA. CNP will then execute the final CEA by signing the agreement. Once executed, CNP will undertake the work in section 3.4.8.
- 3.4.8 CNP 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 CNP after review of the Customer's electrical design package, SIA and CIA.
- 3.4.9 CNP will determine the cost responsibility for the new or modified connection facilities based on the applicable requirements of the Code section 6.3 for a Generator Connection Applicant, and based on the Code section 6.3 along with the TCP – Procedure P5 – Economic Evaluation Procedure (Load Customers) for a Load Connection Applicant.
- 3.4.10 CNP 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 uncontestable 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. CNP will provide any project revisions and additional information at the Connection Applicant's expense with the process starting again at section 3.4.1 in this step.
- 3.4.12 Subject to section 3.4.10 above, before proceeding with Step 4 of this TCP, 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 TCP – Procedure P6 – Contestability Procedure (Load Customers) for responsibilities for technical design and construction requirements.
 - i. CNP built and owned (pool funded)
 - ii. Connection Applicant built and transferred to CNP (pool funded)
 - iii. Connection Applicant built and owned (not pool funded)
- 3.4.13 The Load Connection Applicant indicates to CNP in writing the option it selected in section 3.4.12 above. CNP will then use the appropriate estimates as inputs to the TCP – Procedure P5 – Economic Evaluation Procedure (Load Customers) for determining the Load Connection Applicant's capital contribution.

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- 3.4.14 For a Generator Connection Applicant (other than in the circumstances of an enabler facility), 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. Where CNP constructs an enabler facility (as defined in section 2.0.28A of the Code), the fully allocated cost of the enabler facility shall be attributed to generator customers (under the Code section 6.3.14A), in accordance with the requirements of the Code section 6.5.1A.
- 3.4.15 CNP 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.

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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 provide for the performance of and payment for connection 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 procedures outlined in section 4.2 below, the following two pre-requisites must be satisfied:

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

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 CCRA is negotiated based on CNP’s CCRA Template for Load Connection Applicants or for Generator Connection Applicants, as applicable. The CCRA documents the security deposit that is required based on the TCP – Procedure 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 CNP by the execution date including forwarding the security deposit to CNP as specified in the CCRA. CNP will then countersign the CCRA and return a fully executed copy to the Connection Applicant. Full execution of the CCRA, and the provision of any payments or deposits required thereunder, will allow CNP to proceed with detailed design, ordering long lead time equipment and seeking necessary approvals, rights, permits and licences.
- 4.2.4 In accordance with the terms of the CCRA, the Connection Applicant and CNP each acquire the necessary regulatory approvals and other permits and rights required for construction. These approvals, permits and rights may include, but are not limited to, EA approvals from the Ministry of the Environment, leave to construct approval from the OEB if required, ESA plan approvals, and easements/property rights.
- 4.2.5 Modifications to the connection proposal that result from any regulatory permits or approvals or easements/property rights must be reviewed by the IESO and CNP to assess whether the SIA requires an addendum, whether the CIA requires revision and/or whether 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

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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.

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5 Step 5 – Design & Build

5.1 Introduction

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

CNP 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 CNP if the work on CNP 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 CNP 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 CNP 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 aspects:
 - i. Interfaces (detailed specifications required)
 - line tap to station entrance structures
 - switchyard modifications including breaker upgrades, if required
 - protection changes to Transmitter's 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 CNP 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 CNP'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 CNP's design review. CNP's target is to provide comments from the

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design review to the Connection Applicant within two weeks of receiving each complete document package.

- 5.2.4 Based on the comments from CNP's design review, the Connection Applicant revises the affected Connection Interface Documents and submits revised documents to CNP for final review before commissioning starts. The later in the project the revised documents are sent for CNP's final review, the more likely changes will be required during the construction of the facilities as a result of any further CNP comments.
- 5.2.5 The applicable contractors for the Connection Applicant and for CNP 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 CNP proceed to construct the required customer connection facilities as proposed in the CCRA including modification or additions to CNP's network facilities.
- 5.2.7 The applicable contractors for the Connection Applicant and for CNP will develop an integrated outage plan which lists all outages that will directly affect CNP's transmission system. CNP 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 CNP 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 CNP.
- 5.2.9 The Connection Applicant and CNP negotiate the Connection Agreement in the form set out in the Code Appendix 1 including the Connection Applicant providing CNP with all the information required for the Connection Agreement schedules.
- 5.2.10 The Connection Applicant and CNP sign the Connection Agreement prior to commissioning. The Connection Applicant sends a copy of the signed Connection Agreement to the IESO.

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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 CNP's transmission system. Inspection, testing and commissioning are carried out on both the customer's and CNP's new or modified facilities.

CNP reserves the right to be a participant in the inspection, testing and witnessing of commissioning of the customer built facilities and to recover CNP's costs from the customer for these activities as per the Code section 4.3.3.

6.2 Commissioning Procedure:

- 6.2.1 The Connection Applicant and its commissioning agent develop a commissioning plan (that includes inspection, testing and commissioning activities) for all customer built facilities that is to be reviewed and commented on by CNP. A list of potential inspection, testing and commissioning requirements that may be used to guide the customer commissioning agent will be provided by CNP on request. The commissioning plan must be submitted to CNP 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's in-service date.
- 6.2.2 Based on the commissioning plan, CNP will inform the Connection Applicant and its commissioning agent regarding which parts of the commissioning plan that CNP will participate in by having CNP's 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 CNP. 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 CNP 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 CNP 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 CNP's reasonable cost to do the same work as per the Code Section 6.6.2 (g).
- 6.2.6 CNP facilities are commissioned. CNP's commissioning coordinator/agent completes a Field Report of Equipment In-Service ("REIS") Form(s) for CNP'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 CNP.

- 6.2.7 CNP contractor(s) for the CNP 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 CNP. The completed form(s) are to be forwarded to CNP.
- 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 CNP.
- 6.2.9 CNP 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 CNP's commissioning coordinator/agent.
- 6.2.10 When all the documentation has been provided to CNP, CNP'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 COVER provided by CNP. The completed form(s) are to be forwarded to CNP.
- 6.2.11 For a Load Connection Applicant, CNP will update the economic evaluation based on the actual capital costs of the work completed and owned by CNP. CNP 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, or potentially Code sections 6.3.18 and 6.3.18A if multiple customers triggered work.
- 6.2.12 CNP 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 CNP the final as built Interface Connection Documents as per the CCRA.
- 6.2.14 The CCRA and Connection Agreement are administered throughout their respective terms. With respect to the CCRA, 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 the terms of the CCRA, as well as for providing refunds to connecting customers if capacity is assigned to another customer within fifteen years of the date on which the connection facility comes into service, except in the case of an enabler facility (Code section 63.17) 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 Procedure P1 has been prepared based on the intent of the Code, section 6.2.7. It outlines the procedure CNP will use for establishing the total normal supply capacity (“TNSC”) of existing transformation or line connection assets for use in calculating Available Capacity as outlined in TCP – Procedure P2 – Available Capacity Procedure (Load Customers).

2 TNSC – Line Connection Assets

Individual Line Connection Asset – Normal Supply Capacity (“NSC”)
Summer Rating – MW capacity assuming a 90% power factor and based on the actual continuous design rating for the line. IESO equipment registration process documents generally define summer ratings as the ratings when ambient temperature is 35 degrees C (south of Barrie) or 30 degrees C (north of Barrie).
Winter Rating – MW capacity assuming a 90% power factor and based on the actual continuous design rating for the line. IESO equipment registration process documents generally define winter ratings as the rating when the ambient temperature is 10 degrees C.

Where a connection element is not normally operated in parallel, the 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 CNP 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

Individual Transformation Connection Asset – Normal Supply Capacity (NSC)
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. IESO equipment registration process documents generally define summer ratings as the ratings when ambient temperature is 35 degrees C (south of Barrie) or 30 degrees C (north of Barrie).
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. IESO equipment registration process documents generally define winter ratings as the rating when the ambient temperature is 10 degrees C.

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

CNP will provide applicable TNSC information to load customers as part of the TCP – Procedure P2 – Available Capacity Procedure (Load Customers).

5 TNSC – Maintaining Data

CNP 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 TCP – Procedure P2 – Available Capacity Procedure (Load Customers). CNP 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 Procedure P2 has been prepared based on the intent of the Code, 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.

CNP will not assign available capacity on any of its network facilities as defined in the Code section 2.0.45. CNP 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 CNP 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 TNSC 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 TNSC 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 below 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 CNP 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 CNP shall conduct an Expansion Study when CNP considers it necessary to ensure that there is sufficient available capacity on CNP'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 CNP proposes to conduct an Expansion Study, CNP shall notify, in writing, all load customers served, or that CNP 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, CNP 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 CNP notice to such 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 CNP 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 CNP 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 CNP will initiate the following steps of section 9 in this procedure so the TNSC (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 CNP to reconfigure load to the proposed new connection facility, CNP shall negotiate in good faith with the customer to determine the terms and conditions that will govern the reconfiguration. Where CNP receives applications from load customers in circumstances where the applications cannot all be accommodated by CNP, CNP 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 CNP will update the available capacity on the connection facilities and assigned capacity for each customer taking into consideration any reconfigured customer load.

3.8 CNP will determine the timing of any need to undertake further work on the Expansion Study with the affected customers due to insufficient available capacity on existing facilities after completing section 3.6 in this procedure.

3.9 Upon completion of an Expansion Study, CNP 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 sections 6.2.27 and 4.7.1. Before disclosing the available capacity on a connection facility that serves only one customer, CNP must first obtain the consent of that customer. Where such consent cannot be obtained, CNP 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, CNP shall assign available capacity on a connection facility to load customers on a first-come first-served basis. CNP shall not assign capacity to a load customer unless the customer has demonstrated its need for available capacity in accordance with the requirements of CNP 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 regarding 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 CNP 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 CNP reasonably believes that a customer is manipulating its load for the purpose of the determination of its assigned capacity, CNP 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 6.3.9 or 6.3.17A, was conducted by CNP 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 CNP

- 6.1** Where a load customer requests an assignment of capacity on a connection facility, CNP shall determine the available capacity of that connection facility (Code section 6.2.8).
- 6.2** Where CNP assigns capacity on a connection facility to itself (in its capacity as a customer) or to a load customer that is an affiliate of CNP, CNP 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 CNP nor be reassigned by the customer except, in connection with a

change in ownership of the facilities to which the assigned capacity relates. CNP shall, upon request, reassign assigned capacity as required to reflect such change in ownership (Code section 6.2.18).

- 6.5** Upon request, CNP shall assign available capacity on a CNP-owned connection facility to serve an existing load customer's load unless CNP 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, CNP shall not assign capacity on the relevant CNP-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 CNP

- 7.1** Subject to section 7.2 below, where available capacity on a connection facility has been assigned to a load customer by CNP, 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), CNP 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 CNP 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. CNP shall not unreasonably deny such a request. Where CNP denies such a request, the customer may apply to the Board for an order requiring CNP to extend the one-year period. (Code section 6.2.20)
- 7.3** Where CNP 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 CNP, CNP 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 CNP Connection Facilities for Available Capacity

- 8.1 CNP 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 CNP 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 TNSC of the connection facility/facilities, CNP will implement this Available Capacity Procedure as per section 2 in this procedure.
- 8.3 CNP will maintain a listing of all CNP connection facilities including the present TNSC of the connection facilities and the peak load each year on the connection facilities. When the Available Capacity Procedure is implemented and completed, CNP will maintain the report which documents individual customer assigned capacity including supporting data, TNSC 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 CNP when the available capacity is reduced to 25% or less. (Code section 6.2.11) Where CNP 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 CNP. 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 CNP's Load Forecast Form; and
 - 9.2.2 amount of assigned capacity requested.
- 9.3 CNP will review the TNSC as per the TCP – Procedure P1 – Total Normal Supply Capacity Procedure (Load Customers) and confirm the present TNSC of the facilities to be studied.
- 9.4 CNP 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 section 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, CNP 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** CNP 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 TNSC for that connection facility as per section 9 in this procedure. (Code section 6.2.7)
- 9.6** If CNP can determine that less than 75% of the TNSC will be assigned including application(s) for new capacity, then CNP will proceed to inform the Connection Applicant in writing of its assigned capacity and this Available Capacity Procedure ends.
- 9.7** If CNP determines that greater than 75% of the TNSC will be assigned including the application(s) for new capacity, then CNP will notify, in writing, all load customers whose load affects the transformation or line connection facilities under study including the Connection Applicant. The notice shall contain the following information:
 - 9.7.1** the reason CNP 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 CNP'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 CNP; and
 - 9.7.6** indicate that requests for available capacity received after 4:00 pm on the 20th business day will be assessed after the current Available Capacity Procedure study is complete.
- 9.8** CNP will re-calculate the available capacity of the connection facilities by determining each customer's assigned capacity based on section 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** CNP 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 CNP 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, CNP must first obtain the consent of that customer. Where such consent cannot be obtained, CNP 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 CNP's rights in regard to security required to mitigate risk related 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 CNP 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, CNP 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 CCRA for connection of a load customer's new facilities to CNP's transmission system. The Connection Applicant shall provide a security deposit equal to the total connection and network facility cost estimated by CNP to be incurred by CNP 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 TCP – Step 4 – Connection and Cost Recovery.

3.2 Generation Customers:

A deposit is required for a signed CCRA for connection of a generator's new facilities to CNP's transmission system. The Connection Applicant shall provide a security deposit equal to the total connection and network facility cost estimated by CNP to be incurred by CNP 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 TCP – Step 4 – Connection and Cost Recovery.

Notwithstanding the foregoing, CNP shall not require a security deposit in relation to the construction of an enabler facility (as defined in section 2.0.28A of the Code). (Code section 6.3.10A)

4 Interest

Interest to be paid by CNP 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 CNP, 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 CNP, at the prime lending rate set by the Bank of Canada plus two percent.

5 Retention of All or Part of the Security Deposit

CNP 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 CNP's new or modified facilities. (Code section 6.3.11 (c))

CNP 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, CNP shall return the security deposit to the Connection Applicant, together with interest at the rate referred to in section 4 in this procedure, less the amount of any capital contribution owed by the Connection Applicant, once the Connection Applicant's facilities are connected to CNP's transmission facilities. Where the security deposit is in a form other than cash, CNP shall return the security deposit to the Connection Applicant once the Connection Applicant's facilities are connected to CNP'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 CNP and/or the fully allocated cost of connection facilities that the Generator Connection Applicant is required to pay to CNP.

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", the Connection Applicant must advise CNP within five (5) business days of the change, and CNP shall have the right to require security in a different form. The Connection Applicant will have five (5) business days to comply with CNP's request.

For the purposes of the preceding paragraph, a “material change in financial risk” – consistent with the definitions in the Ontario *Securities Act* (R.S.O. 1990, c. S.5) as amended from time to time – means a “material change” or “material fact” as defined below:

“Material change” means:

- (i) a change in the business, operations or capital of the connecting customer or its corporate parent (where a parental guarantee is being provided) that would reasonably be expected to have a significant effect on the market price or value of any of the securities of the connecting customer or its corporate parent, or that would be considered important by a reasonable investor; or
- (ii) a decision to implement a change referred to in subclause (i) made by the board of directors or other persons acting in a similar capacity or by senior management of the connecting customer or its corporate parent who believe that confirmation of the decision by the board of directors or such other persons acting in a similar capacity is probable.

“Material fact”, when used in relation to a connecting customer or its corporate parent, means a fact that would reasonably be expected to have a significant effect on the market price or value of any of its securities.

8 Customer Requiring Capacity in the Future

Where CNP is, at the time of 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, CNP 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, 6.3.14A, 6.3.15 or 6.3.16. At the time of connection of the future customer’s facilities, CNP 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, CNP 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 section 4 of this procedure, 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** CNP will calculate the security deposit the Connection Applicant is required to provide CNP as per section 3 in this procedure
- 9.2** The Connection Applicant will inform CNP in writing regarding the form of the security deposit based on section 2 in this procedure.
- 9.3** CNP will review the form of the security deposit to determine if it is acceptable to CNP. If it is not acceptable, CNP will inform the Connection Applicant of any additional requirements.
- 9.4** CNP 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 TCP – Step 4 – Connection and Cost Recovery. CNP may require each Connection Applicant to provide the security deposit at or before the time of executing a CCRA.
- 9.5** As required, CNP will request an additional security deposit as per section 7 in this procedure, retain all or part of the security deposit as per section 5 in this procedure and/or return of the security deposit as per section 6 in this procedure including interest if applicable as per section 4 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). CNP 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 CNP through the CIA process. CNP 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. CNP will include the unedited version of this feedback in the final CIA report and CNP 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 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 CNP'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 (CCA process and require a SIA. If the IESO determines an ESIA (no formal study) is sufficient, then a CIA is not required unless CNP determines there is an impact on the existing transmission customers. If a CIA is not performed, CNP 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 an SIA/CIA Agreement with CNP. The Agreement will allow CNP 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 CNP to conduct the CIA.
- 3.1.3** Pay the cost of the CIA study as per the SIA/CIA Agreement

3.2 Responsibilities of CNP

- 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 CNP.
- 3.2.2 Execute an SIA/CIA agreement with the Connection Applicant. The Agreement will allow CNP 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 OESA 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 CNP's approved fee schedule and as per the SIA/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 CNP which will become an unedited part of the final CIA Reports.
- 3.3.2 Confirm the modifications that are required on its facilities with CNP 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 CNP 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 OESA 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 CNP.
- 3.4.2 Advise CNP of all Connection Applicants registering for the IESO's CAA process.
- 3.4.3 Advise CNP if an SIA will be conducted by the IESO so CNP can assess if a CIA is required.
- 3.4.4 Ensure that the SIA report references CNP's CIA report.

4 CIA Study and Report

CNP's CIA study will be initiated upon the execution of an SIA/CIA Agreement with the Connection Applicant and the IESO has issued its final SIA report and the Connection Applicant requests in writing instructing CNP to proceed with the CIA study. However, while it is not advisable to proceed with the 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.

CNP 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 CNP will prepare a draft CIA report to outline the CIA study results, typically 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 CNP 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 last date the customers in the vicinity of the new or modified connection are required 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 CNP 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 CNP to fund the construction of facilities and/or CNP 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. CNP 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 TCP – Step 3 – Connection Estimates section 3.4.1 by informing CNP in writing that it wants to proceed with the connection and is requesting estimates of the connection costs.
- 2.2** CNP will use the results of the TCP – Step 3 – Connection Estimates Procedure and, if required, Procedure 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, CNP will assign the Load Connection Applicant a financial risk (Code Appendix 4) 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

CNP 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 CNP in determining the financial risk associated with a proposed connection of the Load Connection Applicant. CNP's methodology shall meet the requirements of and be consistent with the Code Appendix 4. (Code section 6.5.2 (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”, CNP 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

CNP will establish a Load Connection Applicant’s risk classification based upon the customer’s bond rating, as provided from a known bond-rating agency. [e.g.: Dominion Bond Rating Service (DBRS)]

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, CNP may, at its option, use unaudited financial statements or other similar information.

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

customer's circumstances are such as to render the comparisons inappropriate, CNP 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

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_1	=working capital/total assets
X_2	=retained earnings/total assets
X_3	=earnings before interest and taxes (EBIT)/total assets
X_4	=market value of equity/book value of total liabilities
$X_4 (*)$	=book value of equity/book value of total liabilities
X_5	=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 Risk	10 years
Industrial BBB-AAA					
Non industrial – BBB	2.68 – 2.99	2.60 – 2.90	2.33 – 2.60	Medium 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 CNP.

** 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 CNP's discretion.

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

Kaplan-Urwitz Model

The term (- 2.56 X2) 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 Applicant's Risk Classification and Economic Evaluation Period will be based on the following table:

Kaplan Urwitz Table

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

** 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. CNP accepted Hydro One's apportionments and methodology that an Industrial class cannot exceed "Medium Low Risk".

Application to OEB

Where CNP considers that the risk classification that results from the application of the above methods produces an anomalous result, CNP 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, CNP 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 TNSC 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 CNP with its load shape in monthly peak load forecasts based on the economic evaluation period calculated in section 3 in this procedure. This shall be submitted to CNP in writing and signed by a person or persons that can bind the company. The format acceptable to CNP is based on the Load Forecast Form to be provided by CNP. (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 CNP 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 TCP – Step 3 – Connection Estimates and if applicable TCP – Procedure 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 CNP's cost of CNP-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 CNP 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 CNP will use a discount rate that is based on CNP'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 CNP 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 CNP will exclude network facility costs and network rate revenues; and (Code section 6.5.2 (h))
- 5.1.7 CNP will exclude historic revenues and sunk costs. (Code section 6.5.2 (i))

5.2 Where CNP 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))

5.3 Where one or more customers triggers the need for a new or modified connection facility and the IESO undertakes an assessment at the request of CNP that confirms the new or modified connection facility will also address a broader network system need, CNP shall determine the proportional benefit and the related attribution of costs between the triggering customer(s), collectively, and the network pool. CNP shall then attribute the collective triggering customer costs to each triggering customer(s). When this applies, CNP shall apply to the Board for approval of the attribution of costs between the triggering customer(s) and the network pool. Where the Board approves a different attribution of costs, CNP shall recalculate the capital contribution to be made by the triggering customer(s). (Code sections 6.3.18 and 6.3.18A)

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 CNP uncontestable work including CNP overheads; plus
- 6.2 where facilities are transferred to CNP 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 CNP 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 or modification 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, CNP shall provide a refund, calculated in accordance with the Code section 6.3.17A, to the Load Connection Applicant if that capacity is assigned to another load customer within fifteen years of the date on which the connection facility comes into service. Where such a refund is required under the Code

section 6.3.17, CNP shall require a financial contribution, calculated in accordance with the Code section 6.3.17A, from the subsequent customer to cover the amount of that refund. (Code section 6.3.17)

8 Economic Evaluation Procedure

- 8.1** CNP will initiate the Economic Evaluation Procedure once the Load Connection Applicant has informed CNP in writing as per section 2.1 Initiating the Economic Evaluation Procedure.
- 8.2** CNP 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 CNP.
- 8.4** CNP 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** CNP will calculate the Load Connection Applicant's initial capital contribution as per section 5 in this procedure based on estimated costs.
- 8.6** CNP 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 CNP will proceed to negotiate and sign a CCRA as per TCP – 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, CNP 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 CNP 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 CNP, 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 CNP's Load Forecast Form.

9.3 CNP 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 CNP 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, CNP 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.

10 Distributors Required to Provide a Capital Contribution

10.1 Where a distributor is required to provide a capital contribution, CNP shall permit the capital contribution to be provided in equal installments over a period of time not to exceed five years unless a longer period is approved by the Board. Where a distributor provides the capital contribution in installments, CNP shall charge interest on the unpaid balance at the Board's prescribed construction work in progress rate, which is updated quarterly and published on the Board's website. The interest charges shall accrue monthly commencing on the date the connection asset goes into service and be paid annually, as part of each installment payment. (Code section 6.3.19)

10.2 For the purposes of section 3.6.1 of the Distribution System Code, CNP shall, upon the request of a transmission-connected distributor, calculate the capital contribution amount for each distributor and each distribution-connected large load customer with a non-coincident peak demand exceeding 5 MW that contributes to the need for a new or modified transmitter-owned connection facility. CNP shall calculate any true-ups in respect of each capital contribution in accordance with the true-up provisions of Code section 6.5. (Code section 6.3.20)

Procedure P6

Contestability Procedure (Load Customers)

P6 – Contestability Procedure

1 Introduction

This Contestability Procedure was developed based on the intent of the Code 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 CNP'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 CNP's existing facilities or utilizing existing station site or existing rights-of-way but to be owned by CNP.

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 CNP 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 CNP 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 CNP's conceptual design and technical standards and specifications and to pay any Board-approved fees for inspection, testing and commissioning by CNP. (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 CNP and the obligation to transfer non-dedicated connection facilities (connection facilities serving more than one load or generator customer) that it constructs to CNP. (Code section 6.6.2 (e))

4 Obligations of CNP:

4.1 Where a load customer requires new connection facilities, CNP shall allow the load customer to elect either to provide its own connection facilities or to require CNP to provide them. (Code section 6.6.1)

4.2 Where the load customer elects to require CNP to provide the connection facilities, CNP 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 CNP. (Code section 6.6.1)

4.3 CNP 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 CNP 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 TCP – Procedure 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 CNP'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 CNP's initial capital cost estimate.

4.4 Where a load customer proposes or is obliged to transfer any connection facilities it constructs to CNP, CNP 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 CNP. (Code section 6.6.2 (f))

4.5 The obligation of CNP 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 CNP. (Code section 6.6.2 (g))

- 4.6** Where CNP pays a transfer price for a connection facility constructed by a load customer, CNP 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 TCP – Procedure P5 – Economic Evaluation Procedure (Load Customers). (Code section 6.6.2 (h)):
- 4.7** CNP 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** CNP 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 TCP – Step 3 – Connection Estimates section 3.4.2, the load connection applicant will indicate to CNP in writing whether it is requesting CNP to implement this Contestability Procedure.
- 5.2** If the Load Connection Applicant requires CNP to provide initial estimates of the capital cost of contestable work, then CNP shall provide the customer with the information as outlined in section 4.3 in this procedure within 45 business days.
- 5.3** As per TCP – Step 3 – Connection Estimates section 3.4.13, the load connection applicant must select one of the following three options:
 - i. CNP built and owned (pool funded)
 - ii. Customer built and transferred to CNP (pool funded)
 - iii. Customer built and owned (not pool funded)
- 5.4** If the Load Connection Applicant selects the option under section 5.3 i above (CNP built and owned), then the CNP initial estimates for all the contestable and uncontestable connection facilities will be used in the TCP – Procedure P5 – Economic Evaluation Procedure to determine the Load Connection Applicant's capital contribution. The initial estimate will typically be +/- 20% as per the TCP – Step 3 – Connection Estimates.
- 5.5** If the Load Connection Applicant selects the option under section 5.3 ii above (to build the facilities themselves and transfer the facilities to CNP), then:
 - 5.5.1** CNP will provide initial estimates of the capital cost for the contestable and uncontestable CNP work required for connection as per section 4.3 in this procedure and these initial estimates will be used in the TCP – Procedure P5 – Economic Evaluation Procedure to determine the Connection Applicant's capital contribution. The initial estimate will typically be +/- 20% as per the TCP – Step 3 – Connection Estimates;
 - 5.5.2** If the Load Connection Applicant proceeds with the connection, CNP will provide, when requested and at cost as part of the full capital cost of the facility to be transferred to CNP, design technical requirements and specifications to allow the customer to carry out the contestable work including CNP design, construction, operations and maintenance

standards that must be met in constructing the connection facilities to be transferred to CNP;

- 5.5.3 the transfer price will be as per section 4.5 in this procedure and CNP's reasonable cost to do the same work will be based on the initial estimated capital cost of the contestable work (if the Connection Applicant requests a more accurate estimate from CNP, then CNP will provide a more accurate estimate at cost for the Connection Applicant to establish CNP'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 CNP 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 CNP has paid the Load Connection Applicant the transfer price, CNP 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 CNP 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 the option under section 5.3 iii above (to build and own all new connection facilities that are contestable), then CNP's initial estimates for uncontestable connection facilities will be used in the TCP – Procedure P5 – Economic Evaluation Procedure to determine the Connecting Customer's capital contribution. The initial estimate will typically be +/- 20% as per the TCP – Step 3 – Connection Estimates.

Procedure P7

Reconnection Procedure

P7 – Reconnection Procedure

1 Introduction

This Reconnection Procedure was developed based on the intent of the Code 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 CNP 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 CNP, CNP shall provide the customer with this reconnection procedure which can be downloaded from CNP's website www.cnpower.com. 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 CNP 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 CNP. 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** CNP will then follow TCP – 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 TCP – Step 2 – SIA and CIA Studies.

Note: CNP 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** CNP will provide for notice to be given to Connection Applicant, setting out all steps to be taken by the Connection Applicant and CNP as part of the reconnection based on information submitted by the customer. Steps to be considered are:
 - 2.4.1** CNP will review any changes the customer has identified in its system since disconnection and if required a CIA will be undertaken as per TCP – Procedure P4 – Customer Impact Assessment (CIA) Procedure at the reconnecting customer's cost.
 - 2.4.2** CNP will estimate the costs of reconnection following TCP – Step 3 – Connection Estimates to estimate any costs to be borne by the customer. CNP will also inform the customer of the duration of the reconnection process.

- 2.4.3 The customer will be required to sign a CCRA as outlined in TCP – 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 CNP and the customer will follow the relevant steps in TCP – Step 5 – Design & Build and TCP – Step 6 - Commissioning based on the amount of changes to the customer facility as part of reconnection.
- 2.5** CNP 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, CNP 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

CNP has developed the following Dispute Resolution Procedure for implementation in the event of a dispute with a customer as per the Code 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 CNP or the customer to bring a dispute to the 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 CNP is constructing new or modified connection facilities for a Connection Applicant, CNP 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 TCP – Procedure P8 – Dispute Resolution Procedure shall apply to disputes arising between the customer and CNP regarding CNP's obligations under the Act, the Electricity Act, its license, the Code or any of CNP's connection procedures except as otherwise specified in the Code section 12. (Code section 12.1.1)
- b) the Parties shall comply with the procedure set out in this TCP – 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 CNP 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 CNP 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 CNP's connection procedures; or
- ii) refusing to include a term or condition that is required to give effect to the Code or any CNP's connection procedures.

2.2 Duty to Negotiate

- 2.2.1 Any dispute between the customer and CNP 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 CNP or the customer has the right to bring a dispute to the 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 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 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

CANADIAN NIAGARA POWER INC.
SCHEDULE OF CHARGES & FEES

ACTIVITY	CHARGES & FEES
1 Feasibility Study	Actual Costs
2 SIA & CIA Studies	Actual Costs
3 Connection Estimates (when a Customer pays)	Actual Costs
4 Engineering, Design, or Construction Activities	Actual Costs
5 Inspection, Testing and Commissioning associated with Customer Facilities	Actual Costs

NOTE:

In all the above cases, where CNP will be incurring costs on behalf of the customer, the customer will enter into a cost recovery agreement with CNP (e.g. CCRA) prior to costs being incurred.

CNP does not have many customers applying for a new or modified connection to CNP'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 CNP. CNP's contribution to the activities set out in this schedule will be based on time and materials incremental to costs currently included in CNP's revenue requirement.

Appendix 2

Summary of Process Timelines

SUMMARY OF PROCESS TIMELINES

	Time Line	Trigger
Step 1 – Connection Application	10 business days or as agreed to by CNP and the Connection Applicant	From receipt of Customer Connection Application
Step 2 –CIA Studies	60 to 75 Business Days	From the Date the Connection Applicant requests in writing for CNP to undertake the CIA
Step 3 – Connection Estimates <i>(Includes Economic Evaluation Procedure and Contestability Procedure for Load Customers)</i>	45 Business Days <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 <i>(Excluding any requirements for an EA, OEB Approval, ESA or other Regulatory Approvals or securing of easements/property rights)</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