

### **Customer Connections Process**

January 2002

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### **Customer Connections Process**

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## Hydro One Networks Inc. Customer Connections Process

#### Introduction

In accordance with the *Market Rules*, anyone planning to establish or modify a connection to the IMO – controlled grid must obtain approval from the IMO for such new or modified connection through the IMO Connection Assessment and Approval (CAA) process. The CAA process allows the IMO to assess the impact of new or modified connections on the IMO – controlled grid. For complete details of the IMO's CAA process, refer to the IMO's "*Market Administration Manuals*, *Part 2.10: Connection Assessment and Approval.*"

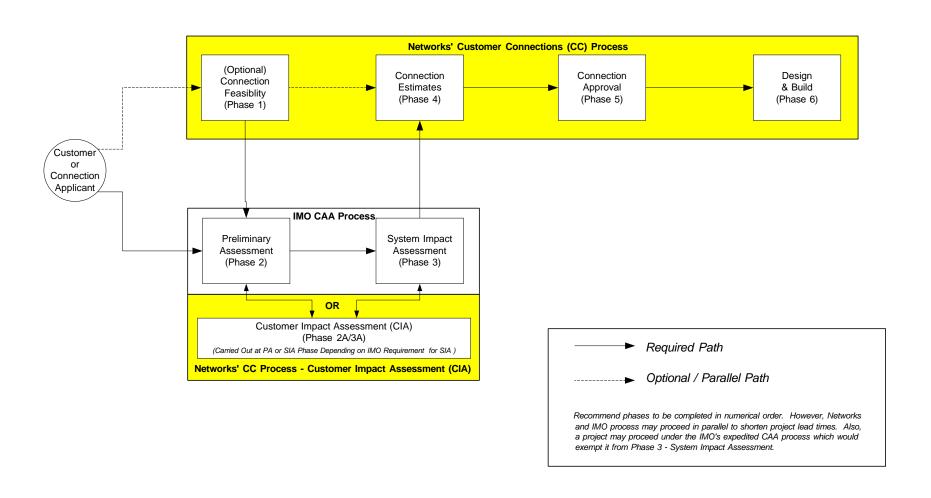
The Hydro One Networks (Networks) Customer Connections Process complements the IMO's CAA process by detailing Networks' end-to-end process and procedures for incorporating a Customer's new or modified connection into the Networks transmission system. This document details Networks' Customer Connection Process, including:

- Process & Procedural Steps
- Application & Agreement Templates
- Connection Fee Schedule
- Connection Timelines & Schedule
- Connection Policies
- Construction & Commissioning Requirements

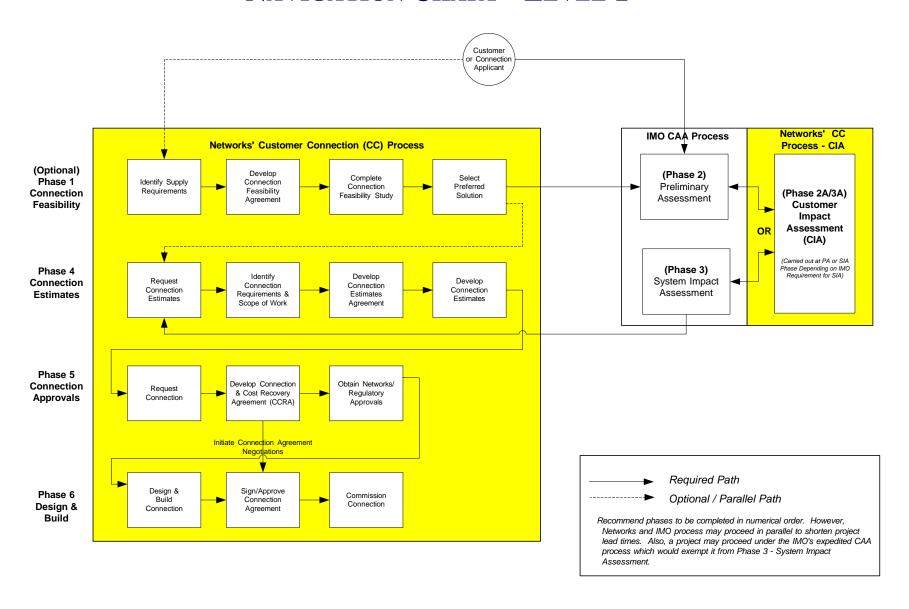
All connection applicants that register with IMO for the CAA process should also register with Networks to ensure compliance with *Market Rules and Transmission System Code* (TSC) and to estimate the cost and to schedule the resources needed to complete the connection to the Networks' transmission system.

Networks' Customer Connection Process is summarized in the Navigation Charts – Level 0 and Level 1 maps and detailed in subsequent process maps and narratives.

# HYDRO ONE NETWORKS INC. (NETWORKS) CUSTOMER CONNECTIONS PROCESS NAVIGATION CHART - LEVEL 0

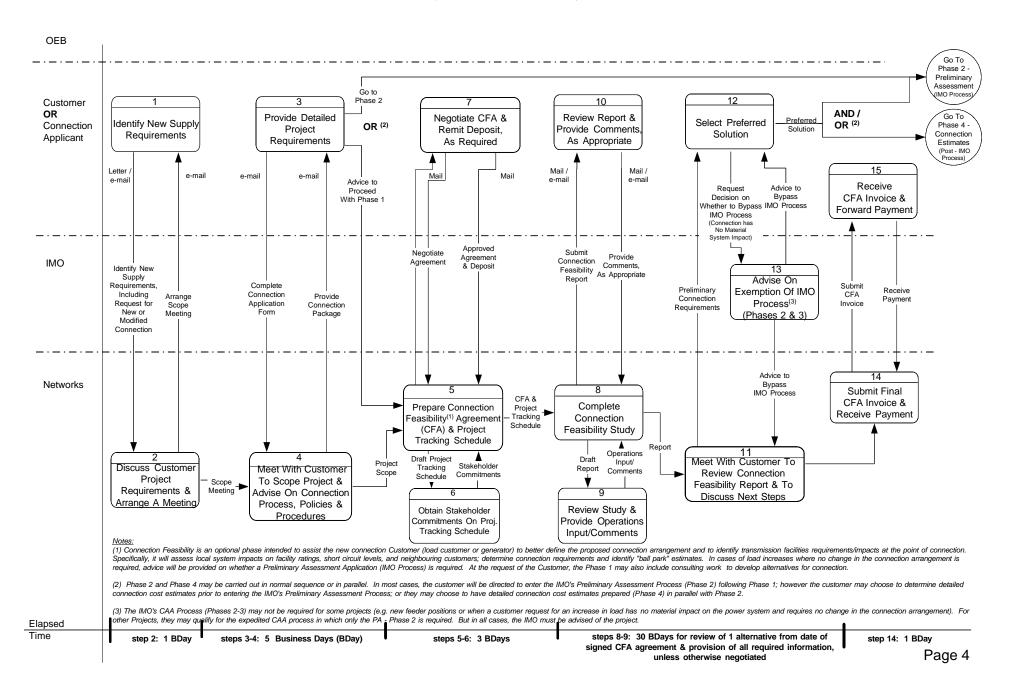


# HYDRO ONE NETWORKS INC. (NETWORKS) CUSTOMER CONNECTIONS PROCESS NAVIGATION CHART - LEVEL 1



## Phase 1 (Optional) Connection Feasibility

## CUSTOMER CONNECTIONS PROCESS PHASE 1 - CONNECTION FEASIBILITY (PRE-IMO PROCESS)





#### Phase 1 (Optional): Connection Feasibility

The pre-IMO process is an optional phase intended to assist the new connection Customer (load customer or generator) to better define the proposed connection arrangement and to identify transmission facilities requirements/impacts at the point of connection. Specifically, the connection feasibility study will determine

- Adequacy of the transmission system facilities at the connection point and immediate vicinity by assessing
  - Impact on facility ratings (thermal and connection point operating voltage).
  - Impact on short circuit levels.
  - Impact on neighbouring Customers.
- Connection requirements to meet TSC requirements and to address any system or connection constraints.
- Most practical connection alternative(s), if requested by the Customer.
- "Ballpark" cost estimates or range of costs of connection alternative(s).

In many situations the new connection applicant or customer will benefit from reviewing and screening their connection proposal and possible alternatives with Networks before submitting their requested alternative for review through the IMO's Connection Assessment and Approval (CAA) process. The results of this Connection Feasibility study will cover off Networks' requirements and accountabilities in the IMO's Preliminary Assessment (Phase 2). Thus, no additional work and no additional fees will be required by Networks during the IMO's Preliminary Assessment. This will save the Customer time and money by clearly identifying the connection requirements ahead of the IMO's CAA process.

- (Steps 1 & 2) The new connection Customer advises Networks of their new supply objectives/requirements (expansion, new connection, capacity etc.). Networks responds to the initial request within 1 working day to discuss the new supply objectives/requirements and to clarify the following:
  - Customer supply options and objectives.
  - Connection process, procedures and requirements.
  - Information requirements and completed Connection Application Form, attached as **Appendix 1.**
  - Arrange half day meeting within 5 working days of initial request to discuss purpose and objectives.
  - Customer need for a technical consultant.
- 2. (Steps 3 & 4) Customer completes the Connection Application Form (attached as Appendix 1) and submits it to Networks prior to the first half-day meeting. The Customer and Networks meet within 5 working days to review and exchange information on the project scope, connection process, policies and procedures, and to discuss next steps. Networks will provide up to two initial consultation meetings to review/discuss the Customer's connection proposal. The purpose of these two initial consultation meetings is NOT to carry out any detailed studies/simulations, but rather to provide the Customer with relevant information and professional opinions that may facilitate/help them in their decision making process, including the following:
  - Single line diagram illustrating the transmission facilities in the area.



- Equipment ratings and their available capacity to incorporate the proposed connection.
- Information on approved projects in the area that may impact the connection proposal.
- Professional opinions on the following issues that will need to be confirmed in Phase 1 or 2, on
  - Alternatives that may be considered for meeting Customer functional requirements and TSC connection requirements.
  - Adequacy of existing transmission system to incorporate connection proposal (thermal, voltage and short circuit ratings).
  - Connection and operating issues/concerns.
  - Typical lead times and "ball-park" costs.

These two initial consultation meetings will **NOT** eliminate the need to carry out an assessment of the connection proposal as covered by the optional Phase 1 – Connection Feasibility or Phase 2 – IMO's Preliminary Assessment. Nor will these two meetings provide any opinion on

- Site assessment
- Detailed Cost estimates from Hydro One Network Services (NS)
- Commitment on Constructability
- Commitment to Cost or In-service date

At some point during these two initial meetings, the Customer will need to decide if they want to proceed with the optional Phase 1 - Connection Feasibility or if they want to proceed directly to the IMO Process (Phase 2).

3. (Steps 5, 6 & 7) If requested by the Customer to proceed with Phase 1, a Connection Feasibility Agreement (CFA) is developed and submitted to the Customer within 3 working days of the request. A Connection Feasibility Agreement template is attached as Appendix 2. Standard fee schedules for Investment Planning Studies, as shown in Appendix 3, will be applied to determine the applicable charges to the Customer. Networks will initiate the connection feasibility study once the Customer provides the financial commitment and technical information required to complete the study.

A project tracking schedule is prepared by the Networks Account Executive to manage, monitor, and report project progress through Networks' Connections process. A summary of the process elapsed timelines is attached as **Appendix 4**.

- 4. (Step 8) Networks carries out the connection feasibility study in accordance with the terms and conditions of the CFA. Typically and unless otherwise negotiated, the connection feasibility study for one connection alternative will be completed within 30 days from the date of a signed CFA agreement and provision of all required information as outlined in the connection application form. In a report to the Customer, the connection feasibility study will identify / determine the following:
  - Adequacy of the transmission system facilities at the connection point and immediate vicinity by assessing
    - Impact on facility ratings (thermal and connection point operating voltage range).
    - Impact on short circuit levels.
    - Impact on neighbouring Customers.
  - Connection requirements to meet TSC requirements and to address any system or connection constraints.



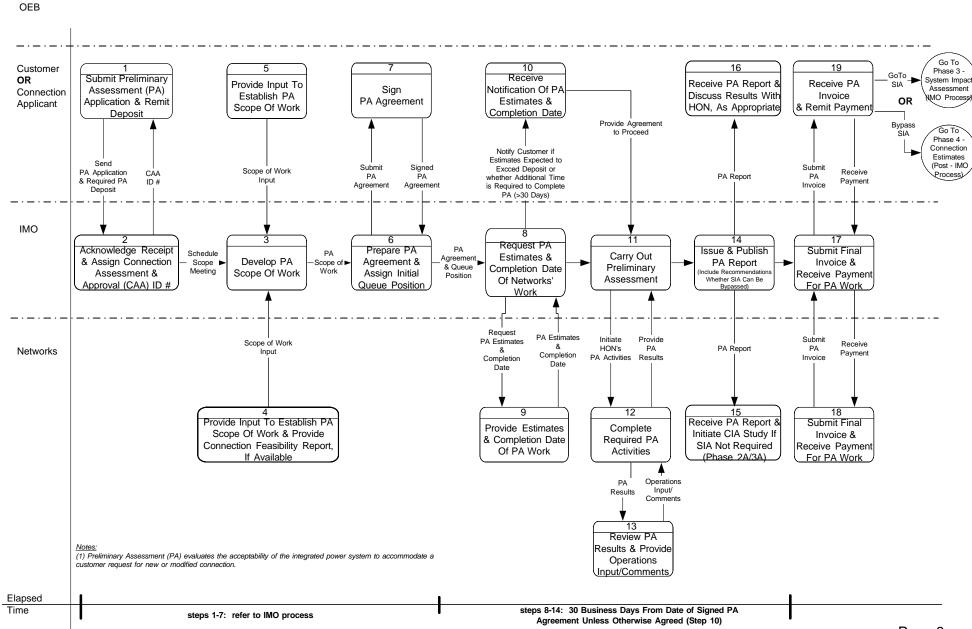
- Most practical connection alternative(s), if requested by the Customer.
- "Ballpark" cost estimates or range of costs of connection alternative(s).
- 5. **(Step 9)** A draft of the connection feasibility study report is reviewed by Networks to identify any operating issues / concerns associated with the connection proposal. The connection feasibility report is revised to incorporate any operating issues / concerns that are identified.
- 6. **(Steps 10 and 11)** After the Customer has reviewed the connection feasibility study report, Networks and the Customer may meet to review the report, to discuss/select the preferred solution or connection alternative, and to discuss next steps or action plan. This may include advice on the following:
  - Need to proceed to the IMO's Connection Assessment and Approval (CAA) process.
  - Need for additional studies and identification of key issues.
  - Need to obtain release quality estimates or to order long lead time equipment to expedite the connection.
  - Need to obtain Environmental Assessment (EA) approval, and OEB Leave to Construct approval under Section 92 of the Ontario Energy Board Act, 1998.
  - Clarification of Networks/IMO/Customer roles and costs for future studies, approvals and construction to incorporate the proposed connection.
- 7. **(Steps 12 and 13)** The Customer decides on the preferred connection solution and next course of action. This may involve:
  - Requesting a decision from the IMO on whether the proposed connection may be exempt from the IMO's CAA process. This would be for connections that have no material system impact and requires no change in the connection arrangement (e.g. load increase, like-for-like equipment replacement, and addition of facilities at system voltages less than 50 kV that does not materially impact the integrated power system).
  - Determining whether to enter the IMO's CAA process (Phase 2) or to proceed to obtain budgetary or release quality estimates (Phase 4) for the connection. Proceeding in parallel will reduce process timelines. However, there is a risk that additional system requirements for connection may be identified by the IMO during their System Impact Assessment (Phase 3). The Customer assumes this risk by proceeding in parallel with Phase 4 – Connection Estimates and the IMO's CAA process (Phases 2 and 3).
- 8. **(Steps 14 and 15)** Networks prepares / submits the final connection feasibility agreement (CFA) invoice to the Customer. The Customer receives the final invoice and remits final payment to Networks for completion of Phase 1 services. These fees may be refunded to a pool funded load customer if the incremental load/revenue guarantees are sufficient to hold the pool harmless in the evaluation of the financial contribution requirements or cost sharing arrangement of the proposed incorporation facilities.

## Phase 2 – Preliminary Assessment

(Summary Only - Refer to the IMO's CAA Process Details)

## CUSTOMER CONNECTIONS PROCESS PHASE 2 - PRELIMINARY ASSESSMENT (1) (IMO PROCESS)

FOR COMPLETE IMO PROCESS REFER TO MARKET ADMINISTRATION MANUALS PART 2.10 CONNECTION ASSESSMENT AND APPROVAL





## Phase 2 – Preliminary Assessment (Summary Only - Refer to the MO's CAA Process Details)

The objective of this assessment is to evaluate the acceptability of the Customer proposal from the point of view of the reliability of the integrated power system. It is initiated after the Customer makes a formal application, pays the required deposit to cover the cost of the study and enters into a Preliminary Assessment (PA) Agreement with the IMO. The PA agreement covers the scope and cost of the study. The results of the assessment are provided to the applicant within 30 business days of the PA agreement. Unless otherwise agreed, the PA study only looks at the impact of the individual proposal. The IMO assesses the impact on system voltage and system flows based on prevailing forecasts and assessments. The transmitter determines impact on short circuit levels, facilities ratings, neighbouring customers and adequacy of the transmission system facilities at the connection point and vicinity. The IMO is also responsible for issuing the PA report, and it is provided only to the Customer and the affected transmitter.

The IMO will determine whether or not a formal connection study is required and will provide this advice to the connection applicant. As a guideline, the IMO's CAA process (Phase 2 & 3) will not generally be required when a customer connection has no material impact on the power system and requires no change in the connection arrangement as given by the following examples:

- addition of new feeder positions at system voltages less than 50 kV.
- like-for-like replacement of existing transmission system facilities where there is no connectivity change on the system.
- connection stations and lines where the line tap is short, the total capacity is less than 20 MVA, the load does not include significant reactive power requirements such as those associated with large motors, furnaces or other similar facilities, and there is no significant change in system impedance.
- teleprotection changes of a standard nature, using approved standards and equipment, at system voltages less than or equal to 115 kV, and which are not expected to impact the IMO
   controlled grid and interconnection utilities.
- Reactive compensation devices connected at system voltages less than 50 kV.

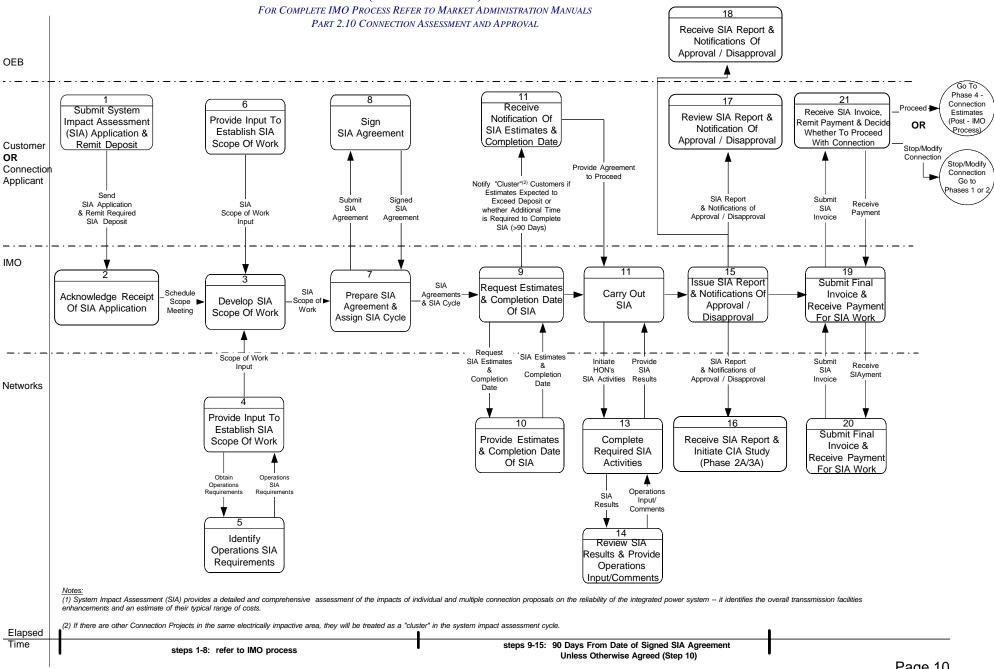
However, in all cases, the IMO should be advised of the proposed connection project so they can determine whether no CAA; an expedited CAA (Phase 2 - PA only); or a full CAA (Phase 2 - PA & Phase 3 - SIA) is required. Under an expedited CAA process, the Preliminary Assessment Report will identify that no further analysis is required, and that it is possible to resolve all outstanding issues to allow the connection proposal to proceed without having to carry out a Phase 3 - System Impact Assessment.

Also, line connection work that is part of a step-down transformer station (TS) connection project, does not require separate/individual applications from both the Customer and Networks to the IMO for assessment. The application to the IMO for the TS work is to be submitted by Networks for a pool funded TS and submitted by the Customer in all other cases. This will automatically cover the line connection work associated with the proposed TS.

### Phase 3 – System Impact Assessment

(Summary Only - Refer to the IMO's CAA Process Details

#### **CUSTOMER CONNECTIONS PROCESS** PHASE 3- SYSTEM IMPACT ASSESSMENT (1) (IMO PROCESS)





## Phase 3 – System Impact Assessment (Summary Only - Refer to the IMO's CAA Process for Details)

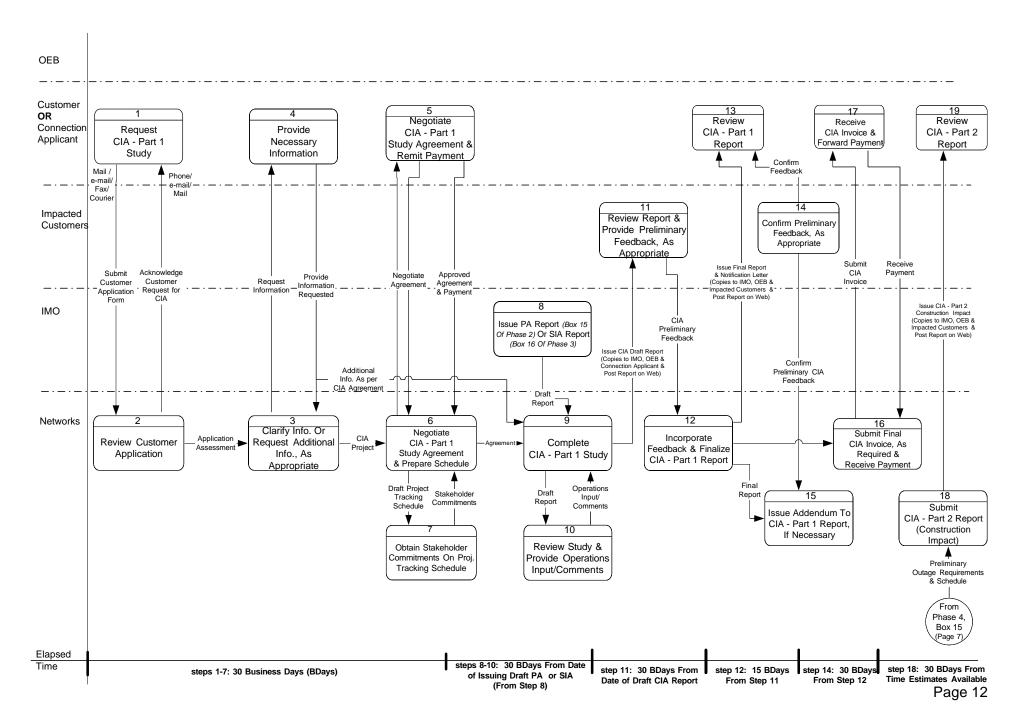
The System Impact Assessment (SIA) is initiated after the Customer makes a formal application and pays the required deposit. A requirement for the SIA application is the acceptability of a connection proposal based on the results of the Preliminary Assessment (PA) study. The SIA application should be made within 30 calendar days of receipt of the PA Report.

The SIA provides a more detailed and comprehensive assessment of the impact of the proposal than does the PA. The SIA considers the impact of individual and multiple proposals, and identifies the overall transmission facilities enhancements that would be needed following implementation of the new/modified connections to the transmission system. The SIA study is coordinated by the IMO and involves the IMO, the Customer, and the affected transmitter.

The transmitter is responsible for confirming system ratings, determining impact on connection point and local transmission facilities (short circuit, thermal, connection point voltage, switching surges and local reliability), carrying out a Customer Impact Assessment and for providing the range of costs of the enhancements needed.

## Phase 2A/3A Customer Impact Assessment (CIA)

## CUSTOMER CONNECTIONS PROCESS PHASE 2A / 3A - CUSTOMER IMPACT ASSESSMENT (CIA)





#### Phase 2A/3A – Customer Impact Assessment (CIA)

#### 1.0 Introduction

Customer Impact Assessment (CIA) is required to determine the impact of new or modified connections on Transmission Customers. The Transmitter is required to carry out this assessment and in fulfilling this obligation, the following are to be noted:

- 1. The Transmitter's 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 impacted Transmission Customers to determine the impacts and modifications on their electrical facilities and to advise the Transmitter, IMO, OEB and the Connection Applicant accordingly. The Transmitter will issue a draft of the Part 1 (technical) CIA report and impacted Transmission Customers are required to provide preliminary feedback. The Transmitter will include the unedited version of this feedback in the final Part 1 CIA report and the Transmitter will not take responsibility for the contents of the Impacted Transmission Customer's feedback.
- 2. The decision on the level/degree of enhancements/modifications at the Impacted Customers' facilities 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 the scope of this process.

#### 2.0 Purpose of this Document

This document outlines the procedural steps, the administrative roles and responsibilities and the scope and format of the studies in the CIA Process.

#### 3.0 Requirement for a CIA Study

A Customer Impact Assessment (CIA) is required for all new or modified connections to the IMO-controlled grid. All connection applicants that register with the IMO for a CAA study should also register with the Transmitter for a CIA study. The Transmitter will prepare a CIA report for all cases where a connection applicant has registered for a CIA study. 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.

The Transmitter can wave the requirement for a detailed CIA study if the Transmitter determines during its preliminary review that the new or modified connection will not adversely impact other Transmission Customers. The Transmitter may consult with the IMO prior to waving the requirement for a detailed CIA study. In cases where the requirement for a detailed CIA study is waived, the Transmitter will advise the Connection Applicant, the IMO and the OEB in writing of its decision and such document will act as the CIA report. Such document will also be available to the public via the Transmitter's web site.



As a guideline, a detailed CIA study will not generally be required for the following connection proposals:

- Like-for-like replacement of existing transmission facilities where there is no connectivity change on the transmission system
- Transmission connection lines and transformation stations where;
  - 1. No generation is being added.
  - 2. There is no significant change in system impedance.
  - 3. The load does not include significant reactive power requirements such as those associated with large motors, furnaces or other similar facilities.
- Addition of feeder breakers at system voltages less than 50 kV.

#### 4.0 Administrative Roles and Responsibilities

#### 4.1 Responsibilities of Connection Applicant(s)

- Apply to the Transmitter for a Customer Impact Assessment (CIA).
- Execute a CIA agreement with the Transmitter. The agreement will allow for the Transmitter
  to post the CIA results on its web site and, make the results available to all Transmission
  Customers in the vicinity of the relevant connection point as defined by the IMO.
- Provide information and data as required by the Transmitter to conduct the CIA.
- Pay the cost of the CIA study.
- Work with the Impacted Transmission Customers to ensure that all enhancements and modifications on the Impacted Transmission Customers' electrical facilities are coordinated with the Connection Applicant's desired in-service date.
- Provide documented proof to the Transmitter and the IMO that all enhancements or modifications at the Connection Applicant's electrical facilities that are identified through the CIA study are in place. This must be done no later than 30 days before the agreed to ready for service date for the applicant's new or modified connection facility.

#### 4.2 Responsibilities of Transmitter(s)

- Conduct a CIA for all new or modified connections to the IMO-controlled grid
- Execute a CIA agreement with the Connection Applicant. The agreement will allow for the transmitter to post the CIA results on its web site and, make the results available to all Transmission Customers in the vicinity of the relevant connection point.
- Provide a report of the CIA results to the IMO, the OEB, the Connection Applicant and Transmission Customers that are impacted by the new or modified connection. The report of the CIA results must reference the IMO-CAA study and report. The forwarding letter for the



report must also make all Impacted Transmission Customers aware of their responsibility to identify enhancements and modifications on their facilities that are triggered by the proposed new or modified connection.

- Include the feedback from Impacted Customers into the final Part 1 CIA Report.
- Advise Non-Impacted Transmission Customers in the vicinity of the relevant connection point, in writing, of the proposed new or modified connection. The notification letter must reference the study results on the transmitter's web site.
- Provide an invoice of the cost of the CIA study to the Connection Applicant based on the Transmitter's approved fee schedule for the CIA study.
- Ensure that the Connection Applicant and all Impacted Customers provide documented proof that all enhancements or modifications at the Applicant's facilities and at the Impacted Customers' facilities that are identified through the Transmitter's CIA, are in place prior to connecting the Applicant's proposed new or modified facilities. The Transmitter will carry this responsibility out prior to commissioning in Phase 6 - Design/Construct.
- Advise the IMO of all Connection Applicants registering for a CIA.

#### 4.3 Responsibilities of Impacted Transmission Customers

- Provide a preliminary assessment of expected impacts and modifications on its own electrical facilities to the Transmitter with copies to the IMO, OEB and the Connection Applicant.
- Confirm the enhancements or modifications on its facilities with the Transmitter together with the required lead-time for such changes with copies to the IMO, OEB and the Connection Applicant.
- Provide documented proof to the Transmitter that all enhancements or modifications on its own facilities are in place. This must be done 30 days before the agreed to ready for service date for the applicant's new or modified connection facility.

#### 4.4 Responsibilities of the IMO

- Advise Connection Applicants of the requirement for all applicants to register with the Transmitter for a CIA and the results of the CIA must be made available to the IMO as a requirement for an extended PA or an SIA.
- Advise the Transmitter of all Connection Applicants registering for the IMO-CAA.
- Advise the Transmitter of the nature of the assessment to be carried out by the IMO in their CAA (PA, extended PA or SIA). This is required by the Transmitter to determine if a CIA is to be done.
- Ensure that the CAA report references the Transmitters' CIA report.



#### 5.0 CIA Steps and Timelines (See Attached Process Diagram)

The following are typical steps and timelines for conducting a CIA study. These steps and timelines may change depending on such things as scope of the study, response time of customers/connection applicants and other issues that may arise during the negotiation of the CIA Agreement.

#### 5.1 Preparatory Work (Steps 1-7)

The preparatory work includes the submission of a CIA Application and the execution of a CIA Agreement.

The total elapsed time for this preparatory work is typically about 30 business days.

#### 5.1.1 CIA Application & Acknowledgement (3 Business Days)

- The CIA process is initiated with the Connection Applicant submitting a Customer Connection Application package to the Transmitter. The package comprises the CIA Application, appropriate supporting documentation including a single line diagram. The CIA study application is downloaded from the Transmitter's web site or may be obtained directly from the Transmitter.
- The Customer Connection Application package is submitted to the Transmitter via Mail, email, Fax or Courier.
- The Transmitter will acknowledge receipt of the Customer Connection Application package within 3 business days by e-mail, phone or Fax, followed by confirming Mail.

#### 5.1.2 Provision of Data and Information for CIA Study (12 Business Days)

- After the Transmitter confirms the receipt of the Customer Connection Application package, the Transmitter in consultation with the IMO will, review the submitted material and request the Connection Applicant to provide additional information/data if required and/or clarification of submitted material if required. This is to be done within 7 business days of the date the Transmitter acknowledges receipt of the Customer Connection Application package, and it may involve a meeting or conference call with the customer.
- The Connection Applicant will provide missing information/data or clarification of submitted information/data within 5 business days of the date of the Transmitter's request for the missing information or for clarification of submitted information.
- If specific data/information cannot be provided, the Transmitter in consultation with the Connection Applicant and the IMO, may propose suitable typical values to be used in the CIA study. In this case, it is the responsibility of the Connection Applicant to ensure that facilities that are later installed have values that are acceptable to the Transmitter and the IMO.



#### 5.1.3 CIA Agreement (15 Business Days)

The Transmitter and the Connection Applicant will execute a CIA Agreement to cover the following:

- CIA study scope including schedule and reporting format.
- Provision of additional data.
- CIA study cost, invoicing and payment schedule and method. The Transmitter will provide
  the cost of the study at the time of the CIA Agreement based on the Transmitter's approved
  fee schedule for the CIA study.
- The connection applicant shall remit payment of the study cost based on the payment schedule in the CIA Agreement.
- Confidentiality and information/data sharing including distribution of study results & report.

The following steps are followed in the execution of the CIA Study Agreement:

- The Transmitter prepares and submits a draft of the CIA Agreement including the scope of work for the CIA study to the Connection Applicant, via fax or courier. This scope of work is included as Schedule 1 in the CIA Agreement. This is done within 5 business days from the date the Connection Applicant provides missing information/data required for the CIA study.
- Within 10 business days of issue of the draft CIA Agreement, the Transmitter and the Connection Applicant will execute a final agreement.

When a CIA Agreement has been executed, the Transmitter will assign a queue position to the CIA Study Application. The assigned queue position is determined by the date of the execution of the CIA Agreement and is only used for prioritizing the list of studies to be conducted by the Transmitter. The IMO-CAA queue position may be considered by the Transmitter.

#### 5.2 CIA Study and Report (Steps 8 – 17)

The Transmitter's CIA study will be initiated upon the execution of a CIA agreement with the Connection Applicant and the issue of the agreed on version of the IMO draft Preliminary Assessment (PA) Report for "expedited CAA" studies or the draft System Impact Assessment (SIA) report. To ensure that the CIA study is initiated soon after the issue of the IMO CAA draft report, it is recommended that the preparatory work for the CIA study (i.e., study application, scope and agreement) be done prior to the issue of the draft CAA report.

The CIA will be conducted in two parts with the first part to be done following either the expedited IMO-CAA (Preliminary Assessment – PA only) or System Impact Assessment (SIA). The second part of the CIA will follow the cost-estimating phase of the Customer Connection Process and will be carried out as part of the Transmitter's normal project management process.



#### Part 1: Customer Impact Assessment – Technical (75 Business Days)

The Transmitter will conduct part 1 of the CIA after the CIA Agreement is executed, to determine the expected impact on the following as appropriate:

- short circuit levels at the customer connection/delivery point,
- supply voltage levels at the customer connection/delivery point,
- adequacy/capacity of supply facilities at the customer connection/delivery point,
- reliability of the supply at the customer connection/delivery point,
- reinforcement and changes required on the transmitter's supply facilities

The Transmitter(s) will prepare a report to outline the CIA Part 1 study results. The report will include the relevant data/information used in the assessment, including the Transmitter's and the Connection Applicant's data/information.

- A draft report will be issued and it would outline the impact of the new or modified connection on the supply at the connection/delivery point to the Transmission Customer. This is to be issued within 30 business days of the date of execution of a CIA Agreement.
- Impacted customers will provide their preliminary feedback within 30 business days of issue of the draft report.
- A final report will be issued within 15 business days of the date the impacted customers
  provide their preliminary feedback. The final report would include preliminary feedback from
  impacted customers.
- Impacted Transmission Customers to confirm preliminary feedback within 30 business days of issue of the final report.
- Transmitter to issue, if necessary, an addendum to the final CIA Part 1 report within 10 business days based on the impacted customers' confirmation of their preliminary feedback.

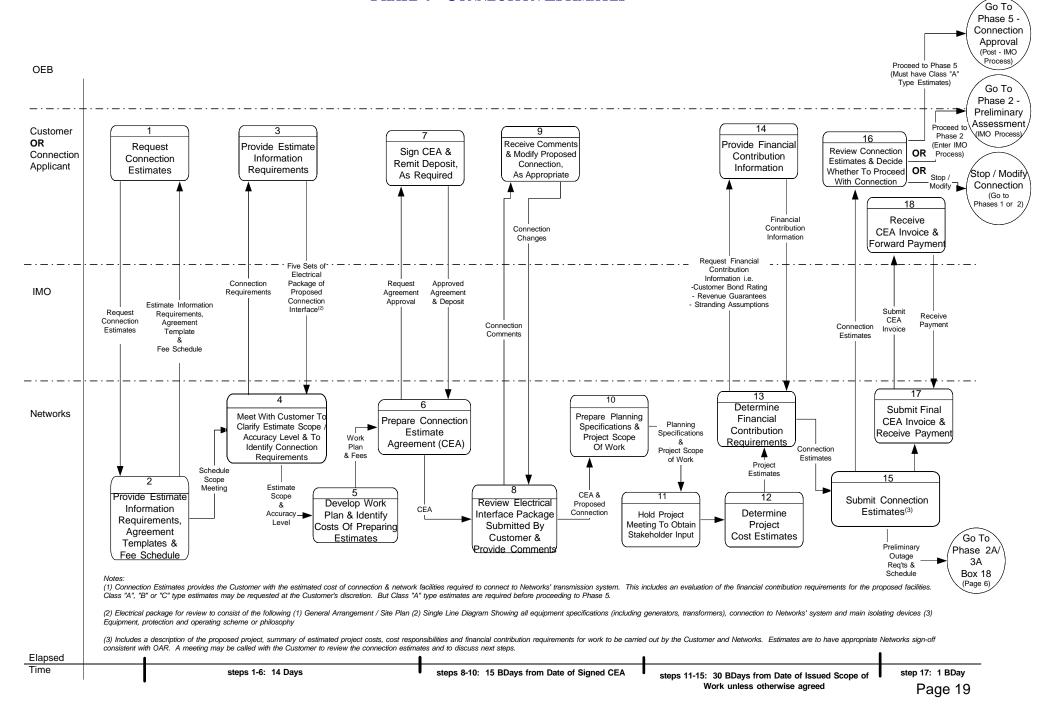
The CIA Part 1 report will distributed to the IMO, OEB, Connection Applicant and all Impacted Transmission Customers. The Transmitter(s) will also post the CIA Part 1 report on its web site and provide a project notification letter to all non-impacted Transmission Customers in the area.

#### Part 2: Customer Impact Assessment – Construction Activities (30 Business Days)

Part 2 of the CIA will outline the construction activity impact on Transmission Customers in the vicinity of the relevant connection point. This is communicated to impacted customers as part of the normal project management responsibilities of the Transmitter. The CIA part 2 report will be issued within 30 Business Days following project definition and preparation of detailed cost estimates (Phase 4 - Connection Estimates). CIA Part 2 report will address issues such as outages and outage management during construction.

## Phase 4 Connection Estimates

### CUSTOMER CONNECTIONS PROCESS PHASE 4 - CONNECTION ESTIMATES<sup>(1)</sup>





#### Phase 4 - Connection Estimates

The Connection Estimates phase provides the Customer with budgetary or release quality estimates of the facilities required for connection to Networks' transmission system. This includes an evaluation of the financial contribution requirements or cost sharing arrangement of the proposed incorporation facilities.

- 1. **(Step 1)** The Customer or Connection Applicant requests connection estimates to be prepared.
- 2. **(Step 2)** Networks identifies the Customer information required to initiate preparation of connection estimates. The required information is identified below, some of which may already be available as part of the Connection Application Form provided in Phase 1:
  - Connection requirements that describe proposed connection interface
    - General arrangement / site plan
    - Single line diagram showing all equipment specifications (including generators, transformers), proposed connection to Networks' system, and main isolating devices
    - Equipment, protection and operating philosophy
  - Estimate Scope of Work information requirements.
  - Estimate accuracy requirements
    - Class "A" Estimates: accuracy +/- 10% required for authorization of Networks' work
    - Class "B" Estimates: accuracy of +/- 30%
    - Class "C" Estimates: accuracy of +/- 50% preliminary / budgetary type estimates
  - Connection Estimate Agreement template (refer to Study Agreement Template attached as **Appendix 2**).
  - Fees for estimating services.
- 3. **(Steps 3 and 4)** A "Scope" meeting with the Customer is arranged to review / clarify the connection requirements, estimate scope of work, estimate accuracy level and connection estimate agreement. Five sets of the electrical package / connection requirements identified in (2) above will have been submitted by the Customer at least five working days ahead of this "Scope" meeting.
- 4. **(Step 5)** Develop a work plan and identify the costs of preparing the connection estimates with input from the service provider, as appropriate.
- 5. **(Step 6)** Prepare the Connection Estimate Agreement (CEA) and submit it to the Customer for approval. This agreement describes the estimate scope of work, estimate accuracy, cost and schedule of preparing the estimates and other terms and conditions of providing this estimating service.
- 6. **(Step 7)** Approve the CEA and remit deposit in accordance with the Connection Estimate Agreement terms and conditions.
- 7. **(Steps 8 & 9)** Networks reviews electrical interface package submitted by the Customer in (2) above and provides comments on the proposed design. The Customer receives/reviews the connection comments and modifies the proposed connection interface, as appropriate. The connection interface changes are communicated to Networks.



- 8. **(Step 10)** Based on the CEA scope of work, estimate accuracy requirements and proposed connection interface, develop the planning specifications and project scope of work required for the estimating process.
- 9. **(Step 11)** Hold an internal project meeting to obtain input/comments and incorporation requirements associated with the connection proposal e.g. outage requirements, protection and telecom requirements, SCADA and telemetry requirements, operating ratings, nomenclatures, instructions, etc).
- 10. (Step 12) Based on the planning specifications and project scope of work, Networks' service provider determines the project cost estimates of the connection and network incorporation facilities.
- 11. **(Step 13)** The cost sharing arrangement or cost responsibility/accountability of new / modified connection / network incorporation facilities are determined based on the following policies:
  - "Policy on Financial Contributions for New / Modified Generator Connections", attached as **Appendix 5.**
  - "Policy on Financial Contributions for New or Modified Transmission Load Connections", attached as **Appendix 6.**

A financial contribution model determines the Customer's financial contribution requirements for "holding" the pool harmless and for managing Networks' investment risk, based on the above guidelines, Customer risk profile, load/revenue guarantees, and facilities stranding assumptions.

- 12. **(Step 14)** The Customer submits the financial contribution information requested by Networks to determine Networks' risk exposure in deriving the financial contribution requirements consistent with the requirements of the Policy for Financial Contributions for New or Modified Transmission Load Connections. This information may include the following:
  - Credit worthiness & bond rating
  - Financial Statements for previous 2 years
  - Load / revenue guarantees
  - Marketing / Operating Plan
  - Etc.
- 13. **(Step 15)** The results of the financial contribution model determine the Customer's cost of incorporation. These connection estimates must be signed off by the appropriate Networks authority and communicated / submitted to the Customer. These estimates should include a description of the proposed project, preliminary outage requirements and schedule, summary of estimated project costs, cost responsibilities and financial contribution requirements for work to be carried out by the Customer and Networks.

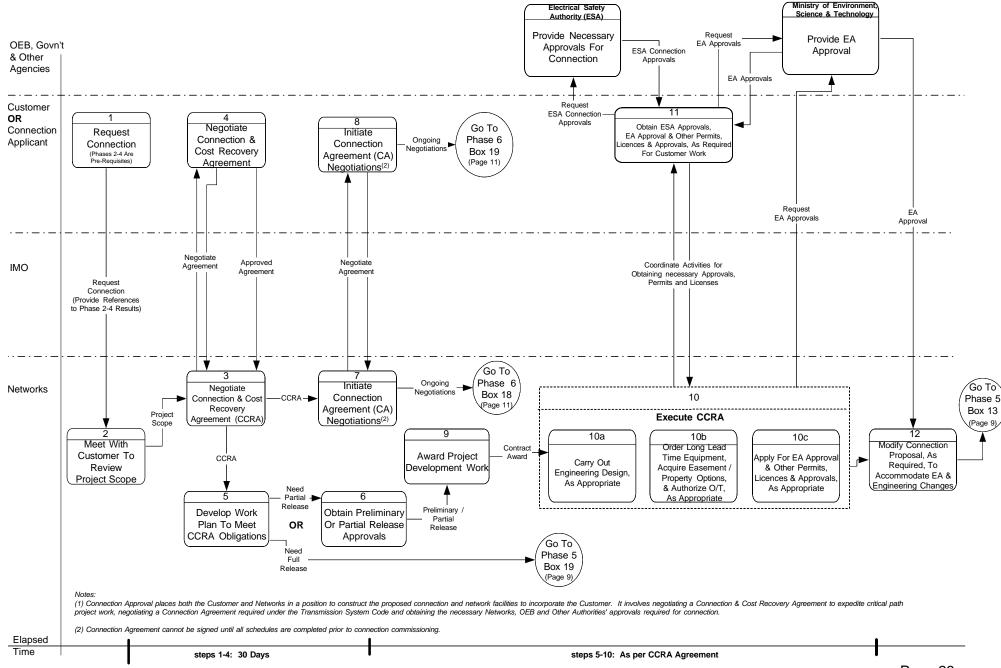
A meeting may be arranged with the Customer to review the connection estimates and to discuss next steps. Assuming the Customer proceeds with the connection project and at the Customer's request, Part 2 of the CIA process is to be initiated. This will communicate the impact of the construction activity (i.e. project outage requirements and schedule) to the Customer, OEB, IMO and all Impacted Transmission Customers in the area.



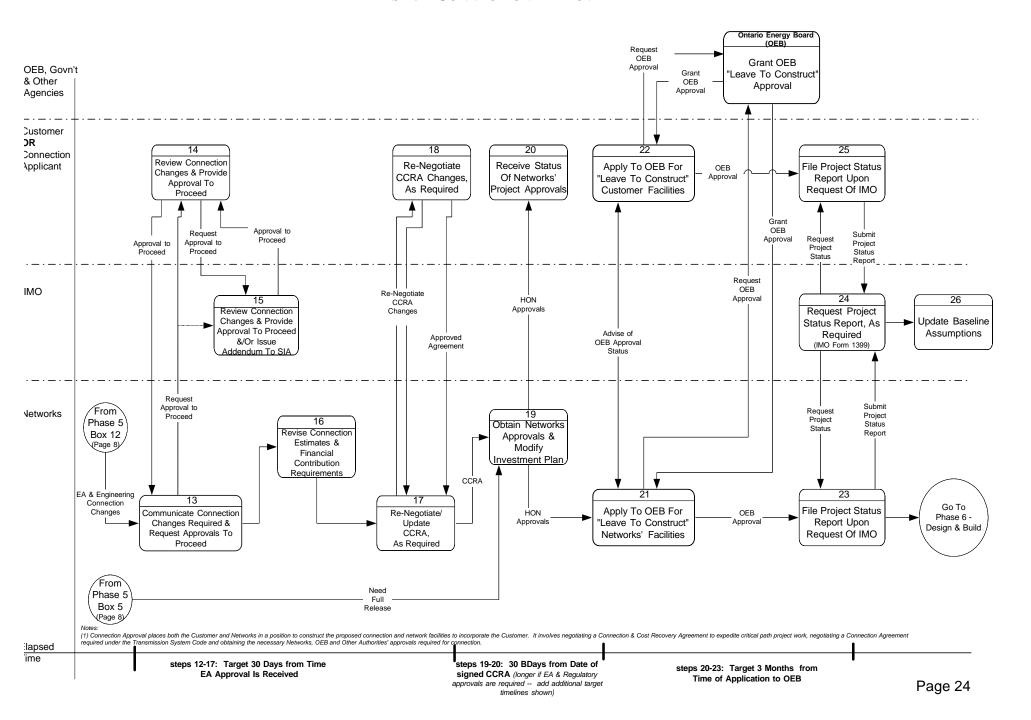
- 14. **(Step 16)** The Customer reviews the connection estimates and decides whether to proceed with the connection. At this point, the Customer has four choices:
  - 1. Proceed with the connection to Phase 5 Connection Approval (must have Class "A" estimates)
  - 2. Enter the IMO Process Phase 2 Preliminary Assessment
  - 3. Modify connection proposal and start again Go to Phase 1 / Phase 2 / Phase 4 as appropriate
  - 4. Stop
- 15. **(Steps 16 & 17)** Networks prepares / submits the final connection estimate agreement (CEA) invoice to the Customer. The Customer receives the final invoice and remits final payment to Networks for completion of Phase 4 services. These fees may be refunded to a pool funded load customer if the incremental load/revenue guarantees are sufficient to hold the pool harmless in the evaluation of the financial contribution requirements or cost sharing arrangement of the proposed incorporation facilities.

## Phase 5 Connection Approval

### CUSTOMER CONNECTIONS PROCESS PHASE 5 - CONNECTION APPROVAL (1)



## CUSTOMER CONNECTIONS PROCESS PHASE 5 - CONNECTION APPROVAL (1)





#### Phase 5 – Connection Approval

Connection Approval places both the Customer and Networks in a position to construct the proposed connection and network facilities to incorporate the Customer connection. It involves negotiating a Connection & Cost Recovery Agreement (CCRA) to expedite critical path project work, negotiating a Connection Agreement required under the TSC and obtaining the necessary Networks, OEB, EA and Other Authorities' approvals required for connection.

- 1. (Step 1) The Customer requests a new connection to the IMO controlled grid or modification to an existing connection. Typically, this request enters the Networks organization via a Networks Account Executive. Pre-requisites to this phase are:
  - The Customer has a preferred connection option that has been approved by the IMO through the IMO Connection Assessment and Approval (CAA) process.
  - A release quality (accuracy of +/- 10%) connection estimate for the preferred connection alternative.
- 2. (Step 2) A meeting is held with the Customer to review and agree on the project scope of work, estimated cost, timelines, interfaces and interface milestones. A Networks Account Executive typically arranges this meeting.
- 3. (Step 3) Based on the agreed scope of work and costs, a Connection & Cost Recovery Agreement (CCRA) is negotiated. A template for the CCRA is attached as Appendix 7. This agreement forms the basis of the Connection Agreement (CA) to be negotiated with the Customer. It includes Networks' costs incurred if the project is cancelled or terminated for any reason and addresses any issues related to stranding, revenue guarantees and project in-service dates. Under NO circumstances will equipment be ordered or work initiated by Networks until the CCRA is signed and fully executed.
- **4. (Step 4)** The Customer reviews and approves the CCRA and returns a signed copy to Networks.
- 5. (Step 5) Upon full execution of the CCRA, a detailed work plan is developed to meet Networks' obligations in the CCRA. The work plan will include a project execution schedule, customer interface schedules and deliverables, invoicing and payment requirements, etc. The project execution schedule milestones are to be incorporated into the overall Project Tracking Schedule.
- **6. (Step 6)** For projects requiring Regulatory approvals such as Environmental Assessment (EA) approval, Networks will obtain the necessary approvals (Preliminary or Partial Release) for such work related to its facilities. If project lead time is short for meeting the required in-service date, Preliminary/Partial Releases could also cover such work as Engineering Design (as appropriate) Easement Acquisition/Property Options, Ordering of Long Lead Time Equipment, etc.
- 7. (Steps 7 & 8) Using the CCRA as a base, the Networks Account Executive will take the lead role and initiate negotiations on a Connection Agreement (CA) with the Customer. The Connection Agreement and associated schedules that must be completed are provided in the TSC. It is noted that the CA must be fully executed before the Customer's facilities are commissioned and placed in-service.



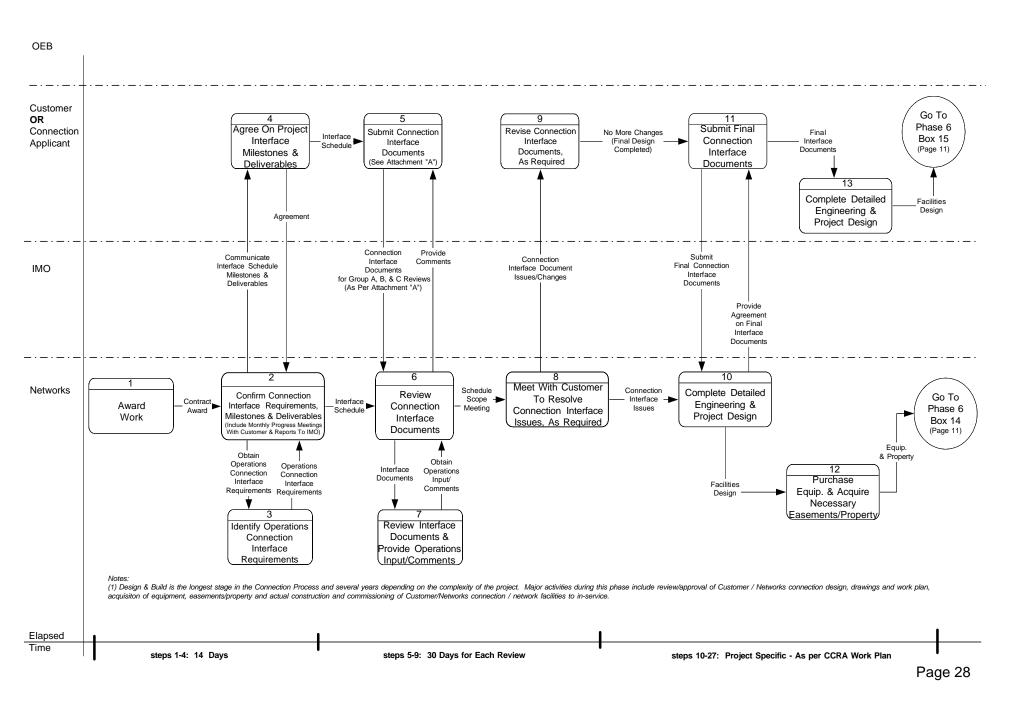
- **8. (Step 9)** Networks approves the work and awards a contract to Network Services to execute the approved scope of work.
- **9. (Step10)** With Networks monitoring the work and providing periodic status reports, Network Services carries out the preliminary work identified in the CCRA that is needed to meet the project milestones. This work may include the following:
  - Carry out engineering design, as appropriate.
  - Order long lead time equipment, acquire easement / property options and authorize overtime, as appropriate.
  - Apply for EA approval and other permits licenses and approvals, as appropriate.
- **10. (Step 11)** Where required, the Customer must also obtain Regulatory approvals and other permits. These may include EA approval and Electrical Safety Authority (ESA) approvals. To expedite the approvals process, it is recommended that this work be done in parallel with Networks' work to also obtain the necessary Regulatory approvals for its work.
- **11. (Step 12)** Upon completion of the regulatory approval work and preliminary engineering, the connection option/proposal may require changes to accommodate the requirements of the EA and engineering design. Networks will notify the Customer of any modifications to the connection proposal.
- **12. (Step 13)** Modifications to the connection option/proposal that result from the EA approval and engineering process are communicated to the Customer for review and approval. Networks prepares the modified option/proposal and a Networks Account Executive communicates the connection changes to the Customer. The IMO is also advised of the modifications to the connection proposal. It is noted that no further work will be carried out until the Customer approves the modified proposal.
- **13. (Step 14)** The Customer reviews the modified proposal and if in agreement with the changes, the Customer requests IMO approval of the modified connection proposal. Upon receiving the IMO approval for the modified proposal, the Customer would advise Networks to proceed with the work.
- **14. (Step 15)** IMO reviews the modified connection proposal and provides an approval to proceed with the connection work and/or issues an addendum to the SIA Report. The approval is communicated to the Customer and Networks is advised of the decision.
- **15. (Step 16)** Networks issues revised Planning Specifications for the modified connection proposal and requests release type cost estimates for the work. Based on the new cost estimates, Networks determines/revises the Customer's financial contribution requirements.
- 16. (Step 17) Based on the changes to the connection proposal including new interface requirements, new cost estimates and financial contribution requirements, Networks renegotiates required changes to the CCRA with the Customer. Networks prepares the revised CCRA/Addendum which is provided to the Customer by the Networks Account Executive for review and approval.
- **17. (Step 18)** Customer approves the revised CCRA or the addendum to the CCRA and forwards a signed copy to Networks. The revised CCRA or Addendum is fully executed.



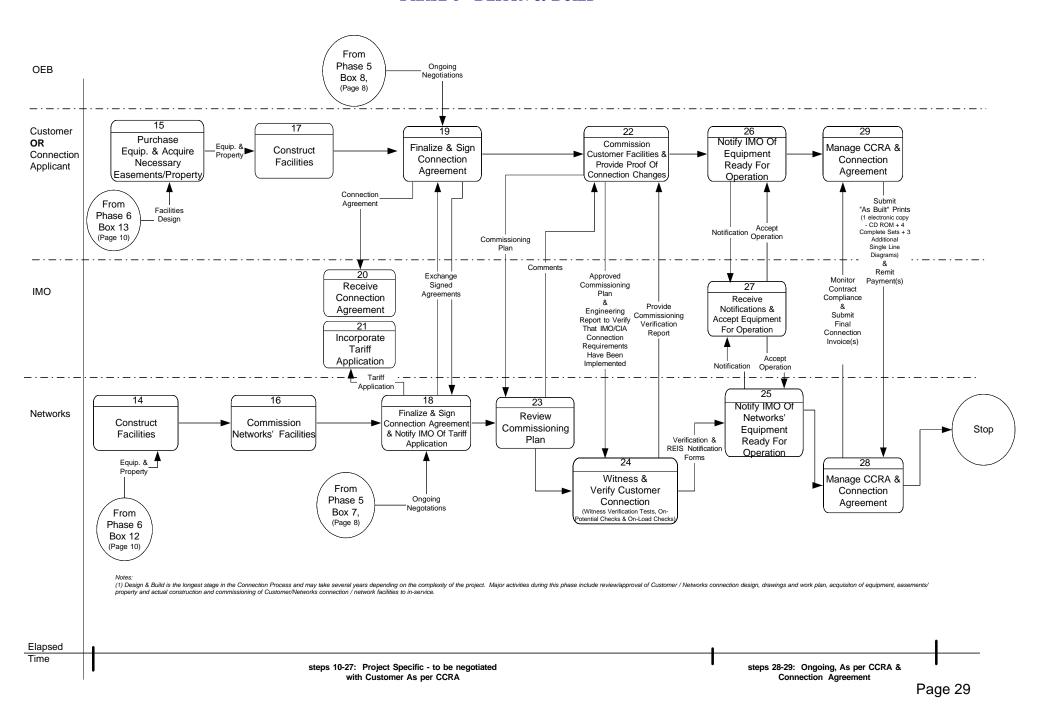
- **18. (Step 19)** Networks prepares the necessary documents and obtains internal approval for the total work in the connection proposal (Final Release), as agreed to in the CCRA/Revised CCRA. The CCRA and Networks work approvals are to be prepared and submitted simultaneously for approval.
- **19. (Step 20)** The Networks Account Executive would advise the customer of Networks' approval for Networks' facilities that are required for the connection proposal.
- **20. (Step 21)** Among other things, Section 92 of the *Ontario Energy Board Act, 1998* requires that any person that constructs, expands or reinforces an electricity transmission line by more than 2 km, to first obtain from the OEB an order granting leave to construct, expand or reinforce. Networks would apply for OEB approval for Networks' facilities that require this approval.
- **21. (Step 22)** Customers, for their owned facilities, would obtain OEB approval for leave to construct, expand or reinforce an electricity transmission line by more than 2 km as required under Section 92 of the *Ontario Energy Board Act, 1998*. The customer would advise Networks and IMO of this approval.
- **22. (Steps 23, 24, & 25)** The IMO may request a "Project Status Report" from the Customer and/or Networks as it deems appropriate. Upon this request from the IMO, Networks and/or the Customer are required to file / submit to the IMO, IMO Form 1399, attached as **Appendix 8.**
- **23. (Step 26)** IMO update their system baseline assumptions using the information contained in the "Project Status Report," that are filed by Networks and/or the Customer.

## Phase 6 Design & Build

### CUSTOMER CONNECTIONS PROCESS PHASE 6 - DESIGN & BUILD (1)



### CUSTOMER CONNECTIONS PROCESS PHASE 6 - DESIGN & BUILD<sup>(1)</sup>





### Phase 6 - Design & Build

This is the longest stage in the Connection Process, which may involve the need for Environmental Assessment, and the need to acquire property/easements. Major activities during this phase include review/approval of Customer / Networks connection design, drawings and work plan, acquisition of equipment, easements/property and actual design/build and commissioning of Customer/Networks connection / network facilities to in-service.

- 1. (Step 1) Phase 6 begins with Networks obtaining internal approval of the Business Case supporting the work. Once approved, the work is awarded to Network Services. Networks Services then executes the work.
- 2. (Steps 2 & 3) The Networks Account Executive arranges the first coordinating meeting with the Customer. This meeting is attended by the Account Executive and other Networks staff, as appropriate, to discuss and confirm the following:
  - (a) Interfaces
    - line tap to station entrance structures
    - switchyard modifications including breaker upgrades if required
    - protection changes to Networks' terminal stations & others
    - teleprotection
    - SCADA functionality & telemetry quantities
    - Telecommunications
    - Revenue metering (if Networks is the Meter Service Provider)
    - Outage and other Operations requirements
  - (b) Interface Milestone Schedule
    - Establish milestones for agreed project interface activities and designate responsibilities. These milestones are to be incorporated into the overall Project Tracking Schedule monitored/tracked by the Networks Account Executive.
- **3. (Step 4)** The Customer confirms the interfaces and agrees to the Interface Milestone Schedule. The Customer proceeds to the detailed design phase.
- 4. (Step 5) Customer prepares and submits the Connection Interface Documents in three packages: Group A, B & C packages for Networks review, per the Connection Interface Milestone Schedule. The Customer must ensure that all required documents for each given Group A, B & C package are provided in a complete and timely manner. Networks can withhold review pending the receipt of all documents within a given package. Networks will do a review per Group A, B & C packages. All documents must be submitted complete, in full size, folded and collated.
- 5. (Step 6 & 7) The project proceeds to the detailed design phase. Networks receives and distributes the Connection Interface Documents for review. The target turnaround is 2 weeks from receipt of the completed packages. Networks prepares the comments in a letter to be provided by the Networks Account Executive to the Customer and its consultant.



- **6. (Step 8)** Networks sets up a technical meeting with the Customer and its consultant, if required, within 2 weeks after the comments from the review. Customer accepts comments for incorporation into the Connection Interface Documents.
- 7. (Step 9) Customer revises the affected Connection Interface Documents and continues with the detailed design phase.
- **8. (Step 10)** The design phase including drawing production is completed. A final review on the re-submitted most up-to-date Connection Interface Documents is also conducted.
- 9. (Step 11) Customer revises and re-submits to Networks the most up-to-date version of the Connection Interface Documents for a final review on the affected changes, prior to commissioning. The Customer submits two full sets to Networks. All documents are to be complete, full size, folded and collated.
- **10. (Step 12)** Project materials are procured, necessary approvals and permits, and easements, if required, are obtained.
- **11.** (Step 13) Customer completes the design phase including drawing production.
- **12. (Step 14)** The Networks facilities including the line tap, switchyard modifications, teleprotection, protection changes, telemetry quantities, SCADA meter modifications, as appropriate, are built/constructed.
- **13. (Step 15)** Customer procures project materials, obtains the necessary approvals and permits, and grants the necessary easements to Networks, as appropriate.
- **14. (Step 16)** Networks' facilities are commissioned. The Commissioning Agent forwards the copies of the Field Report of Equipment In-Service (REIS) to the appropriate groups within Networks.
- **15. (Step 17)** Customer builds the required customer-owned facilities as proposed in the connection, including the line tap, generator, and transformer station, as appropriate.
- **16. (Step 18)** Networks finalizes and signs the Connection Agreement complete with Schedules and notifies IMO of the new tariff application.
- **17. (Steps 19 & 20)** Customer and Networks finalize and sign the Connection agreement. The Customer sends a copy of the signed Connection Agreement to the IMO.
- **18. (Step 21)** IMO incorporates the new tariff application received from Networks into the transmission totalization tables for tariff billing purposes.
- 19. (Steps 22 & 23) Customer performs and completes all commissioning activities on its customer-owned facilities. The Customer submits a Commissioning Plan for review as part of Group "C" Interface Document package and provides documented proof (e.g. engineering stamped report) that verifies the IMO/CIA connection requirements have been implemented at the Customer location and at impacted Transmission Customers. Networks reviews the Commissioning Plan and the documented proof submitted by the Customer and provides comments. The Customer revises and re-submits Commissioning Plan and the documented proof to Networks, if required.



20. (Step 24) Networks witnesses and verifies the Customer connection by performing the following activities: verifying that IMO/CIA connection requirements have been implemented at the Customer location and at impacted transmission customer(s) locations; witness verification tests; witness on potential checks; and witness on load checks. It is noted that failure to comply with the connection requirements or pass the required verification checks will result in non-connection of the facilities.

At the completion of these activities, the Commissioning Agent completes and signs a "Witness of Verification Evidence Report (WOVER)", attached as **Appendix 10**, and forwards the completed WOVER Report to Networks. Networks distributes the original WOVER Report to the Customer.

- **21. (Step 25)** Networks receives copies of the WOVER Report and the Field Report of Equipment In-Service (REIS) and advises the IMO via e-mail of Networks/Customer Equipment ready for operation.
- **22.** (Step 26) The Customer notifies the IMO that the Customer owned facilities are ready for operation.
- **23.** (Step 27) IMO receives notifications from both Networks and the Customer that both facilities are ready for operation. The IMO accepts Networks and Customer facilities for operation.
- **24. (Step 28)** The Networks Account Executive manages the Connection Agreement for the life of the Agreement. Networks initiates the final invoice to the customer on the CCRA.
- **25.** (Step 29) The Customer carries out the obligations of the Connection Agreement including paying the final invoice. The Customer submits to Networks 1 electronic copy (on CD ROM) and four complete sets of the final as-built Interface Connection Documents and three (3) additional sets of the Station 1 Line diagram within 60 days of connection. All hard copy documents are to be submitted in full size, folded and collated.

# **Appendix 1**

**Connection Application Form** 



### **Customer Connection Application**

Submit this form by mail or courier to the following address:

Hydro One Networks Inc. 483 Bay Street, North Tower (TCT15) Toronto, ON M5G 2P5 Attn: Nancy Birarda

**Subject:** Customer Connection Application

All information submitted in this process will be used by HON solely in support of its obligations under the *Electricity Act, 1998*, the *Ontario Energy Board Act, 1998*, the *Market Rules* and associated policies, standards and procedures and its license. All information submitted will be assigned the appropriate confidentiality level upon receipt.

### PART 1 – GENERAL INFORMATION

Organization Name:	
Organization Short Name: (Maximum 12 keystrokes)	
Mailing Address:	
City/Town: Province/State:	
Postal/Zip Code:	Country:
Fax No.:	
Email Address:	
Main Contact	_
Name:	
Position/Title:	
Telephone No.:	Fax No.:
E-mail Address	

### PART 2 – REQUIRED DOCUMENTATION ATTACHED BY CONNECTION APPLICANT

LOA	AD CUSTOMERS
	In-service date
	Indicate whether new or existing connection requiring expansion
	Connection location / address
	Forecast load schedule that will be guaranteed by the Connection Applicant (initial, intermediate & ultimate) including size and date. Identify seasonal/monthly variations in load (summer or winter peak).
	Identify nature of business (specify industry) and any specific reliability requirements.
	Indicate if load is power quality impactive (ie, motors, furnace etc.). For motors, indicate type (synchronous or induction), number and size of motors, operating voltage and frequency of starts. For furnace loads, indicate type, size (MVA), voltage and frequency of operations.
	Connection arrangement including 1-line diagram, size and voltage of connection transformers and typical impedance.
	Identify .0
	Meter Service Provider
CEN	TTD I TODG
	NERATORS
	In-service date
	Indicate whether new or existing connection requiring expansion
	Connection location / address
	Total generation including number of units, size of units and power factor
	Seasonal/monthly operating schedule including output.
	Typical impedance for generating units and step up transformers.
	Connection arrangement including 1-line diagram.
	Identify Meter Service Provider

### PART 3 – CERTIFICATION

The undersigned hereby declares that the information c to the best of the connection applicant's knowledge, co	ontained in and submitted in support of this document is, mplete and accurate.
Name	Title
Signature	Date
PART 4 – FOR HON USE ONLY	
Received by:	Date Received:
Date of Request(s) for Additional Information:	
Date Requested:	Date Received:
Date Requested:	Date Received:
Application Completion Date:	_

### Appendix 2

### Study Agreement Template

### To be Used For

Phase 1 - Connection Feasibility Agreement

Phase 2 – Preliminary Assessment Agreement

Phase 3 – System Impact Assessment Agreement

Phase 2A/3A - Customer Impact Assessment Agreement

Phase 4 - Connection Estimates Agreement

(Note: The attached template is subject to future changes)



### (Study Project Title)

(Customer Name) (the "Customer") has requested and Hydro One Networks Inc ("Networks") has agreed to perform the Work described below to determine the feasibility and/or estimated cost of (proposed project description) (the "Proposed Project"), under the Standard Terms and Conditions (insert reference #) attached to this agreement and forming a part hereof (the "Agreement") dated (insert date).

### Scope of Work (the "Work")

### Hydro One will:

(Details of Study Project including any concurrent work such as material orders equipment with long lead times):

#### The Customer Will:

(list customer obligations with due dates)

### **Completion Date:**

### **Costs:**

The cost of the Work is fixed at \$X (plus applicable taxes) (the "Cost") and the Customer shall pay Hydro One (specify percentage) of the Cost by no later than (insert number) days after the execution of this Agreement and the balance by no later than (insert number) days after the date first written above.

All overdue amounts that are outstanding for longer than 30 days shall bear interest at 18% per annum.

**IN WITNESS WHEREOF**, the parties hereto have caused this Agreement to be executed by the signatures of their proper officers, as of the day and year first written above.

### HYDRO ONE NETWORKS INC.

Anthony Horton Director – Networks Customer Relations I have the authority to bind the corporation

### **Customer Corporate Name**

Customer's Signing Officer

I have the authority to bind the corporation

Study Template for Small and Medium Work



### (Study Project Title)

(Customer Name) (the "Customer") has requested and Hydro One Networks Inc ("Networks") has agreed to perform the Work described below to determine the feasibility and/or estimated cost of (proposed project description) (the "Proposed Project"), under the Standard Terms and Conditions (insert reference #) attached to this agreement and forming a part hereof (the "Agreement") dated (insert date).

### Scope of Work (the "Work")

### Hydro One will:

(Details of Study Project including any concurrent work such as material orders equipment with long lead times):

#### The Customer Will:

(list customer obligations with due dates)

### **Completion Date:**

### **Costs:**

### **Fixed Cost Language:**

The cost of the Work is fixed at \$X (plus applicable taxes) (the "Cost") and the Customer shall pay Hydro One (**specify percentage**) of the Cost by no later than (**insert number**) days after the execution of this Agreement and the balance by no later than (**insert number**) days after the date first written above.

All overdue amounts that are outstanding for longer than 30 days shall bear interest at 18% per annum.

### **Actual Cost Language:**

Hydro One estimates that cost of the Work is \$ (estimated amountt) (plus applicable taxes). The Customer understands that this is just an estimate and that the Customer is responsible for the Actual Cost (plus applicable taxes) of performing the Work less the amount of the deposit specified below.

Within 90 days after the completion of the Work, Hydro One shall provide the Customer with a final invoice that shall indicate the Actual Cost of the Work (the "Invoice"). The Customer shall pay the Invoice within 30 days after the rendering of the said Invoice.

### Or:

The Customer shall pay Hydro One the Actual Cost of the Work that is estimated to be \$(insert amount) (plus applicable taxes) (the "Estimate") to a maximum of \$(insert amount) (plus applicable taxes) (the "Maximum Amount"). The Customer shall pay Hydro One the Estimate as follows:

(i) \$X (plus applicable taxes) by no later than X days after the date first written above; and



(ii) \$X (plus applicable taxes) by no later than (insert date) X days.

Within 90 days after the completion of the Work, Hydro One shall provide the Customer with a final invoice or credit memorandum which shall indicate whether the amounts already paid by the Customer exceed or are less than the Actual Cost of the Work. Any difference between the Actual Cost (plus applicable taxes) and the amount already paid by the Customer shall be paid within 30 days after the rendering of the said final invoice or credit memorandum, by Hydro One to the Customer, if the amount already paid by the Customer exceeds the Actual Cost (plus applicable taxes), or by the Customer to Hydro One, if the amount already paid by the Customer is less than the Actual Cost (plus applicable taxes) subject to the Maximum Amount specified above.

"Actual Cost" means Hydro One's charge for equipment, labour and materials at Hydro One's standard rates plus Hydro One's standard overheads and interest thereon.

All overdue amounts that are outstanding for longer than 30 days shall bear interest at 18% per annum.

### **Customer Deposit:**

**IN WITNESS WHEREOF**, the parties hereto have caused this Agreement to be executed by the signatures of their proper officers, as of the day and year first written above.

### HYDRO ONE NETWORKS INC.

Anthony Horton
Director – Networks Customer Relations
I have the authority to bind the corporation
Customer Corporate Name

\_\_\_\_\_

Customer's Signing Officer

Title

I have the authority to bind the corporation

- 1. In the Agreement, unless there is something in the subject matter or context inconsistent therewith, the following words shall have the following meanings:
- "Applicable Laws" means any and all applicable laws, including environmental laws, statutes, codes, licensing requirements, treaties, directives, rules, regulations, protocols, policies, by-laws, orders, injunctions, rulings, awards, judgments or decrees or any requirement or decision or agreement with or by any governmental or governmental department, commission board, court authority or agency; including, but not limited to, the requirements of the *Electrical Safety Code*, the Ontario Market Rules, Hydro One's Transmission License and the Ontario Energy Board.
- "Work" means the work to be conducted in accordance with the scope of work specified in the Agreement and in accordance with these terms and conditions.
- "Good Utility Practice" means any of the practices, methods and acts engaged in or approved by a significant portion of the electrical utility industry in North America during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgement in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good utility practice is not intended to be limited to optimum practice, method or act to the exclusion of all others, but rather to include all practices, methods or acts generally accepted in North America.
- "Transmission System Code" means the code of standards and requirements issued by the OEB on July 14, 2000, as it may be amended from time to time, setting forth mandatory terms, conditions and obligations regarding connections between the facilities of distributors and the facilities of transmitters in accordance with the requirements of the *Ontario Energy Board Act*, 1998.
- 2. The Parties shall perform their respective obligations outlined in this Agreement in a manner consistent with Good Utility Practice, in compliance with all Applicable Laws and using duly qualified and experienced people.
- 3. In order for Hydro One to conduct the Work, the Customer, at its own cost and expense, shall complete the Customer Work specified in the Agreement by the due dates indicated therein.
- 4. Hydro One shall complete the Work by no later than the completion date specified in the Agreement provided that the Customer completes the Customer Work specified in the Agreement by the due dates indicated therein.
- 5. Should the Customer make any changes to any information provided as part of the Customer Work

- pursuant to Section 3 above after Hydro One has commenced the Work and those changes result in an increase in the cost of or the time required for Hydro One performance of the terms of the Agreement or otherwise affect any other provision of the Agreement, Hydro One may equitably increase its compensation specified in the Agreement, using the same hourly rates and overheads that were used by Hydro One to calculate the amount referred to in the Agreement, and Hydro One, acting reasonably, may amend any other provision of this Agreement which is thereby directly affected.
- 6. The Customer acknowledges and agrees that:
- a. if the Proposed Project proceeds, the IMO is the entity that would approve the connection of the Proposed Project;
- b. should the Proposed Project proceed, a Connection and Cost Recovery Agreement (the "CCRA") must be executed by the Customer and Hydro One to address the terms and conditions (which will include terms with respect to capital contribution, revenue guarantees and bypass of Hydro One's facilities) of Hydro One performing the work required to provide for the connection of the Proposed Project. The CCRA must be executed prior to Hydro One initiating any construction or modifications to Hydro One's facilities, or purchasing of any equipment other than the Material;
- c. The Customer is responsible for submitting an application to the IMO as required for approval of the connection of the Proposed Project, unless Hydro One will own the new facilities connecting to the existing Hydro One Transmission System, in which case Hydro One will submit the application to the IMO;
- d. all right, title and interest, including copyright ownership, to all information and material of any kind whatsoever (including, but not limited to the work product developed as part of the Work) that may be developed, conceived and/or produced by Hydro One during the performance of the Agreement is the property of Hydro One and the Customer shall not do any act that may compromises or diminishes Hydro One's interest as aforesaid; and
- e. where the Customer is a generator, the fact that Hydro One is conducting the Work and is discussing the connection of any new or modified generating facility to Hydro One's transmission system with the Customer shall not be construed or interpreted to mean that Hydro One is making any representations or warranties to the Customer that Hydro One can or will permit the connection of the new or modified generating facility to Hydro One's transmission system prior to Section 26 (1) of the *Electricity Act, 1998* (Ontario) coming into force.
- 7. If the Customer does execute the aforementioned CCRA and the Customer is not a generator, the amount(s) paid by the Customer for the Work shall be credited

towards any of the costs of the connection of the Proposed Project that cannot be recovered through revenue guarantees made by the Customer or refunded if the costs of the Proposed Project are supported by the revenue guarantees.

- 8. Except as provided herein, Hydro One makes no representation or warranty, express, implied, statutory or otherwise, including, but not limited to, any representation or warranty as to the merchantability or fitness of the Work or any part thereof for a particular purpose.
- 9. Hydro One shall be liable to the Customer only for damages that arise directly out of the negligence or the willful misconduct of Hydro One in meeting its obligations under the Agreement or under any Applicable Laws.

Notwithstanding the foregoing, Hydro One shall not be liable under any circumstances whatsoever for any loss of profits or revenues, business interruption losses, loss of contract or loss of goodwill, or for any indirect, consequential, incidental or special damages, including but not limited to punitive or exemplary damages, whether any of the said liability, loss or damages arise in contract, tort or otherwise.

In any event, the total liability of Hydro One to the Customer for any claim for damages will not exceed the Cost of the Work.

This Section 9 shall survive the termination of the Agreement.

10. Neither party shall be considered to be in default in the performance of its obligations under the Agreement, except obligations to make payments with respect to amounts already accrued, to the extent that performance of any such obligation is prevented or delayed by any cause, existing or future, which is beyond the reasonable control of, and not a result of the fault or negligence of, the affected party ("Force Majeure") and includes, but is not limited to, strikes, lockouts and any other labour disturbances.

If a party is prevented or delayed in the performance of any such obligation by Force Majeure, such party shall immediately provide notice to the other party of the circumstances preventing or delaying performance and the expected duration thereof. Such notice shall be confirmed in writing as soon as reasonably possible. The party so affected by the Force Majeure shall endeavor to remove the obstacles which prevent performance and shall resume performance of its obligations as soon as reasonably practicable, except that there shall be no obligation on the party so affected by the Force Majeure where the event of Force Majeure is a strike, lockout or other labour disturbance.

11. No amendment, modification or supplement to the Agreement or any waiver shall be valid or binding unless

set out in writing and executed by the parties with the same degree of formality as the execution of the Agreement.

- 12. The Agreement shall be construed and enforced in accordance with, and the rights of the parties shall be governed by, the laws of the Province of Ontario and the laws of Canada applicable therein, and the courts of Ontario shall have exclusive jurisdiction to determine all disputes arising out of the Agreement.
- 13. The Agreement may be executed in counterparts, including facsimile counterparts, each of which shall be deemed an original, but all of which shall together constitute one and the same agreement.
- 14. Each of the Parties hereto agrees to be bound by the terms of APPENDIX "A" hereto.

#### APPENDIX "A": CONFIDENTIALITY TERMS

- 1. For the purposes of this APPENDIX "A", the following definitions will apply:
- a) "Confidential Information" means all information whether transmitted orally, electronically or in written form, relating to the Proposed Project which a party or its Representatives may receive or have received in the course of the Work and any work performed under a CCRA in the future and which contain or otherwise disclose information which the other party reasonably claims as confidential or proprietary, including, but not limited to, Hydro One's transmission system design and system specifications.
- b) **"Person"** shall include individuals, trusts, partnerships, firms and corporation or any other legal entity.
- c) "Representative" means (i) a person controlling or controlled by or under common control of a party and each of the respective directors, officers, employees and independent contractors of a party and such party's Representative, (ii) any consultants, agents or legal, financial or professional advisors of a party or such party's Representative and (iii) in the case of Generator, any institution providing or considering providing financing for the Generator asset, including such institutions directors, officers, employees and independent contractors or its consultants, agents or legal, financial or professional advisors.

### 2. Disclosure of Confidential Information

Pursuant to the terms and conditions contained herein, a party may disclose Confidential Information to the other party solely for the purpose of the Proposed Project or the Work. Notwithstanding such disclosure the Confidential Information shall remain the sole and exclusive property of the disclosing party and as such shall be maintained in confidence by the receiving party using the same care and discretion to avoid disclosure as the receiving party uses with its own similar information that it does not wish to disclose. The receiving party may disclose Confidential Information to its Representatives pursuant to Section 4 below but may not use or disclose it to others without the disclosing party's prior written consent. Notwithstanding the generality of the foregoing, all intellectual property rights which may subsist in the Confidential Information shall remain with the disclosing party. The receiving party shall not use the confidential information for any purposes other than the Proposed Project or the Work without the disclosing party's prior written consent.

### 3. Information that is not Confidential

Confidential Information shall not include information which:

- (a) is previously known to or lawfully in the possession of the receiving party prior to the date of disclosure as evidenced by the receiving party's written record;
- (b) is independently known to or discovered by the receiving party, without any reference to the Confidential Information;
- (c) is obtained by the receiving party from an arm's length third party having a bona fide right to disclose same and who was not otherwise under an obligation of confidence or fiduciary duty to the disclosing party or its Representatives;
- (d) is or becomes publicly available through no fault or omission of, or breach of this Schedule "B" by, the receiving party or its Representatives;
- (e) is disclosed by the disclosing party to another entity without obligation of confidentiality; or
- (f) is required to be disclosed on a non-confidential basis pursuant to a judicial or governmental order or other legal process as described in Section 6 or as set forth in Section 5.
- (g) The Customer Impact Assessment report marked by Hydro One for release to public.

#### 4. Disclosure to Representatives

Confidential Information shall only be disclosed to Representatives who need to know the Confidential Information for the purposes of the Proposed Project or the Except in the case of officers, directors or employees, Confidential Information may only be disclosed to Representatives where the receiving party has an agreement in place with those Representatives sufficient to obligate them to treat the Confidential Information in accordance with the terms hereof. The receiving party hereby specifically acknowledges that it shall be solely responsible to ensure that its representatives comply with the terms of this APPENDIX "A" and that the receiving party shall defend, indemnify and hold harmless the disclosing party from and against all suits, actions, damages, claims and costs arising out of any breach of this APPENDIX "A" by the receiving party or any of its Representatives.

#### 5. Compelled Disclosure

In the event that a receiving party, or anyone to whom a receiving party transmits Confidential Information pursuant to this Schedule "B" or otherwise, becomes legally compelled to disclose any Confidential Information, the receiving party will provide the disclosing party with prompt notice so that the disclosing party may seek injunctive relief or other appropriate remedies. In the event that both parties are unable to prevent the further transmission of the Confidential Information, the receiving party will, or will use reasonable efforts to cause such person to whom the receiving party transmitted the Confidential Information to furnish only that portion of the Confidential Information, which the receiving party is advised by written opinion of counsel is legally required to be furnished by the receiving party, to such person and

exercise reasonable efforts to obtain assurances that confidential treatment will be afforded to that portion of the Confidential Information so furnished.

### 6. Records with respect to Confidential Information

The receiving party shall keep all written or electronic confidential information furnished to or created by it. All such Confidential Information, including that portion of the Confidential Information which consists of analyses, compilations, studies or other documents prepared by the receiving party or by its Representatives, is the disclosing party's property and will be returned immediately to the disclosing party or destroyed upon its request and the receiving party agrees not to retain any copies, extracts or other reproductions in whole or in part. If a receiving party does not receive a request to return Confidential Information to the disclosing party within six months of the last communication between the parties concerning the Proposed Project or the Work then the receiving party shall destroy any Confidential Information it holds.

Notwithstanding the foregoing and provided that the Proposed Project is connected to Hydro One's transmission system, Hydro One shall have the right to retain such electrical information concerning the Proposed Project that it has received from the Generator or its Representatives for the purpose of Hydro One making the required calculations and decisions related to the design, operation, and maintenance of Hydro One's facilities and those for any other person that may connect or is considering connecting to Hydro One's transmission system that could be impacted by the Proposed Project.

#### 7. Remedies

The receiving party agrees that the disclosing party would be irreparably injured by a breach of this APPENDIX "A" and that the disclosing party shall be entitled to equitable relief, including a restraining order, injunctive relief, specific performance and/or other relief as may be granted by an court to prevent breaches of this APPENDIX "A" and to enforce specifically the terms and provision hereof in any action instituted in any court having subject matter jurisdiction, in addition to any other remedy to which the disclosing party may be entitled at law or in equity in the event of any breach of the provisions hereof. Such remedies shall not be deemed to be the exclusive remedies for a breach of this APPENDIX "A" but shall be in addition to all other remedies available at law or equity.

### 8. Term

This Agreement shall be effective as of the date of this Agreement and shall remain in force and effect for a period of five (5) years thereafter, unless modified by further written agreement of the parties.

# **Appendix 3**

Fee Schedule For Studies

# CUSTOMER CONNECTION PROCESS HYDRO ONE NETWORKS FEE SCHEDULE FOR STUDIES

TYPE OF	COST* PER OPTION	PER OPTION DELIVERABLE	
STUDY/SCOPE	ASSESSED		
SIMPLE	\$5,000	REPORT	
MEDIUM	\$15,000	REPORT	
COMPLEX	To Be Negotiated	To Be Negotiated	

### STUDY/SCOPE DEFINITIONS

SIMPLE STUDY: LV (< 50 kV) LOAD CONNECTION INCLUDING SMALL MOTOR LOADS (<1000 HP)

MEDIUM STUDY: LV NUG CONNECTION, HV O/H LINE CONNECTION TO TS, & LARGE MOTOR LOADS

COMPLEX STUDY: LARGE NUG CONNECTION, AREA/REGIONAL SUPPLY, & RELIABILITY/POWER QUALITY

### **STUDIES COVERING**

- Hydro One Networks Connection Feasibility
- Hydro One Networks Customer Impact Assessment
- IMO's Preliminary Assessment
- IMO's System Impact Assessment

<sup>\*</sup> Costs quoted are for Hydro One Networks staff times only. Additional costs may be included if work is required by Hydro One – Network Services.

# **Appendix 4**

Summary of Process Elapsed Timelines

# **Hydro One Networks Customer Connection Process Elapsed Timelines**

	Time Line	Trigger
Phase 1(Optional)	30 Business Days	From Date of Signed Connection
Connection Feasibility (CF)	30 Business Days	Feasibility Agreement (CFA)
Phase 4 – Connection Estimates (CE)	45 Business Days	From Date of Signed Connection
Filase 4 – Connection Estimates (CE)	45 Business Days	Estimate Agreement (CEA)
Phase 5 – Connection Approvals	30 Business Days (Longer if EA & Regulatory	From Date of Signed Connection Cost
Fliase 5 – Connection Approvais	Approvals are Required)	Recovery Agreement (CCRA)
Phase 6 – Design & Build	Project Specific (Up to 2 years) - To Be	As per CCRA
	Negotiated With Customer as per CCRA	1
Phase 2A/3A - Customer Impact		From Date of Signed Customer Impact
Assessment (CIA) – Part 1 (Technical)	115 Business Days	Assessment Agreement & IMO Issuing
Assessment (CIA) – Fart 1 (Technical)		PA or SIA Report
Phase 2A/3A – CIA – Part 2	30 Business Days	From Date Connection Estimates Are
(Construction Impact)		Made Available

# **Appendix 5**

### **POLICY**

Financial Contributions for New / Modified Generator Connections



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### **POLICY:**

Transmission -Financial Contributions for New or Modified Generator Connections

### 1.0 Revision History

Date	Revision No.	<u>Modification</u>
January 1, 2002	R.2	New Document

### 2.0 Purpose

The purpose of this policy is to establish the principles and rules to be used when determining financial contributions when new and modified Generation connections are incorporated into Hydro One Networks Inc.'s transmission system. The policy establishes fair practices and consistent procedures to be followed within Hydro One Networks Inc. as required by the Transmission System Code (Code) for customers considering new or modified generation connection.

### 3.0 Scope

This policy shall apply to all generation owners proposing to:

- (a) Modify an existing generation connection to Hydro One Networks Inc.'s transmission System.
- (b) Transfer an existing generation connection from Hydro One Networks Inc.'s transmission system to an existing or new customer owned facility.
- (c) Add new generation connection to Hydro One Networks Inc.'s transmission system.

### 4.0 Governing Principles

- 4.1 All generator customers shall be treated in a consistent and fair manner.
- 4.2 Hydro One Networks Inc. shall comply with all regulatory and license obligations related to the treatment of new or modified generator connections, and



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- 4.3 The cost of modifications and upgrades of transmission facilities required to connect and incorporate a new or modified generation connection shall be recovered from the generator customer and shall not be funded from the regulated transmission tariff cost pool.
- 4.4 The generator customer shall borne the financial and technical responsibility when its new or modified connection facility connected to the IMO-controlled grid results in a material increase in the fault levels at any existing customer's connection facilities which had been adequately designed.
- 4.5 Hydro One Networks Inc. shall require financial commitments to its satisfaction from generator(s) to recover the costs prior to ordering any material or construction of facilities, including *common facilities*, required to connect a generator or cluster of generators.

### 5.0 Decision Rules

- 5.1 A generator customer(s) shall design, construct, pay for, and own all new or modified specific line connection and transformation facilities required to connect it to Hydro One Networks Inc.'s transmission system.

  TSC Section 9.1.1
- 5.2 A generator customer shall pay Hydro One Networks Inc. the actual cost of any required modifications, enhancements and reinforcements to Hydro One Networks Inc.'s existing <u>line connection facilities</u> (Figure 1) required to accommodate a generator's or a group of generators' initial connection and subsequent generating capacity which are triggered by and are for the *sole benefit* of the generator(s). These costs shall not include ongoing operating and maintenance costs associated with Hydro One Networks



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Transmission -Financial Contributions for New or Modified Generator Connections

Inc.'s existing connection facilities, which connect the generator to Hydro One Networks

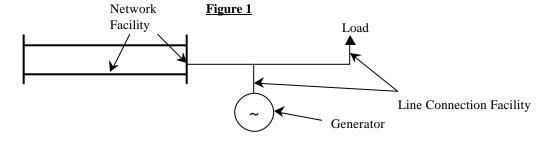
Inc.'s transmission system.

TSC Section 9.1.2,5

- 5.3 The generator customer(s) shall pay Hydro One Networks Inc. the actual cost of installations (additions, modifications, upgrades) and maintenance on Hydro One Networks Inc.'s *network facilities* (Figure 1) that are triggered by and are for the *sole benefit* of the generator.

  TSC Section 9.1.3
- 5.4 The calculation of costs shall consider but not be limited to:
  - (a) Advancement costs of replacing network facilities such as existing breakers and switches before the end of their useful life; and
  - (b) The incremental costs of upgrading the equipment to the next practical rating.

    TSC Section 9.1.4
- 5.5 The generator customer shall pay upfront and/or provide prudential security as required by Hydro One Networks Inc. for ordering of necessary materials having long delivery times. Hydro One Networks Inc. shall provide the breakdown of actual/estimated cost of such materials to the generator customer.
- 5.6 When Hydro One Networks Inc. has in its plan a transmission investment to meet the needs of load customers that is also required to connect a new generator or modify an existing generator's connection, then the generator customer(s) shall pay any incremental costs required to connect the generator.





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Transmission -Financial Contributions for New or Modified Generator Connections

- 5.7 The generator customers shall pay the apportioned cost for *common facility* installations (additions, modifications or upgrade) and maintenance of transmission facilities triggered by a cluster or a group of generators (as identified by the IMO) connecting to Hydro One Network Inc.'s transmission system. The cost for *common facilities* shall be in proportion to the base MVA rating of each generator which is determined as part of the IMO System Impact Assessment (SIA) and who signs a Connection & Cost Recovery Agreement (CCRA) to connect to Hydro One Networks Inc.'s transmission system.
- 5.8 The determination and assignment of incremental transmission costs (with the objective being to permit connection to the transmission system at the minimum cost) shall be based on the generator queue position determined by IMO.
- 5.9 To maintain queue position assigned by IMO, the generator(s)'s self certification shall include completion of the following obligations with Hydro One Networks Inc.:
- 5.9.1 Initiate draft of Connection Estimate Agreement at least 27 months prior to inservice or within 30 days of IMO approval.
- 5.9.2 Sign Connection Estimate Agreement at least 26 months prior to in-service or within 90 days after the completion of IMO's assessment and Approval of Connection Proposal for the new or modified connection.
- 5.9.3 If a generator fails to complete 5.9.1 or 5.9.2, Hydro One shall inform IMO that the generator's progress for self certification has not been met and consequently the generator's queue position shall drop behind any and all other generator(s) that have completed step 5.9.2. This rule shall apply to all generators including a single generator connection or a part of a cluster or a group of generators.



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- 5.9.4 Hydro One Networks Inc. shall prepare a detailed Connection Estimate (typically up to 3-6 months) for the generator customer.
- 5.9.5 The generator customers shall pay Hydro One Networks Inc. to update the Connection Estimates when a generator is part of the cluster or a group of generators and/or if the scope of work to incorporate the remaining generator(s) has been changed either by the IMO or as a result of one or more generator(s) deciding to drop out of the cluster.
- 5.9.6 The generator customer shall initiate a review of estimate with Hydro One Networks Inc. and shall provide Hydro One Networks Inc. an acceptable form of prudential security in an amount which is the higher of either \$250,000 or 20% of the total investment cost assigned for that generator connection within 30 days after Hydro One Networks Inc. has completed the release estimate. Failing to provide such a deposit within 30 days, the generator queue position shall drop behind the queue position of any and all generators that have completed step 5.9.5 and made their deposit with Hydro One Networks Inc.
- 5.9.7 If a generator fails to complete 5.9.6, Hydro One shall inform IMO that the generator's progress for self certification has not been met and consequently the generator queue position should drop behind any and all other generator(s) that has completed step 5.9.2. This rule shall apply to all generators including a single generator connection or a part of a cluster or a group of generators.
- 5.9.8 If none of the generators have provided their deposit within 30 days, the generator queue position will remain unchanged. However, after the expiry of 30



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days, any of these generators that completes step 5.9.5 will move ahead in the queue position for its connection to Hydro One Networks Inc. system.

- 5.9.9 The generator customer shall sign a Connection & Cost Recovery Agreement (CCRA) with Hydro One Networks Inc within ninety (90) days of Hydro One Networks Inc.'s completion of the Release Estimate. Failing to sign the CCRA within 60 days, the generator queue position shall drop behind the queue position of any and all the generators with completed SIA's and IMO approval to connect that have signed their CCRA. The non-refundable deposit received by Hydro One Networks Inc. in section 5.9.5 will be used as a credit against the total cost for the common facilities required for remaining generators that have signed the CCRA.
- 5.9.10 The CCRA shall require generators that are part of the cluster or a group of generators to pay the required portion of their apportioned cost of *common* facilities within 30 days of the start of construction or for the procurement of material.
- 5.9.11 The CCRA shall include the scope of work for the project, total costs of necessary system upgrades with a breakdown of the costs of each major category of work being performed (Structures, Line, Isolation Devices, Transformation, Real Estate, Protection & Control, Tele Protection, and SCADA).
- 5.9.12 The CCRA shall have a clause specifying that when a generator is part of the cluster or a group of generators, their financial obligation to pay Hydro One Networks Inc. may change unless all generators in the group have signed their



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CCRA and the generators shall pay for any and all such incremental costs to Hydro One Networks Inc.

5.9.13 Hydro One shall issue a refund or a rebate to the generator customer for subsequent generator connections or as per any Ontario Energy Board rulings on this policy that result in changes to the rules of this policy for cost allocations. The refund to the initial generator will be subject to and limited to an apportioned amount recovered from the subsequent generator(s) connecting within five years and utilizing facilities that were paid for by the initial generator for its connection to Hydro One Networks Inc. transmission system.

### 6.0 Exception

None

### 7.0 Specific Circumstances

A generator customer that has a generator within a cluster or a group of generators can opt to pay all connections costs associated with its queue position and the costs of all common facilities required to connect that particular generator to avoid any delays which may be caused by other generators within the group.

### 8.0 References

- 8.1 Transmission System Code
- 8.2 IMO Market Manual 2, Part 10: Connection Assessment and Approval.

### 9.0 Rationale

9.1 No identifiable generation projects will be funded or subsidized from the regulated transmission tariff cost pools.



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### POLICY:

Transmission -Financial Contributions for New or Modified Generator Connections

- 9.2 Hydro One Networks Inc. is required to meet its transmission license obligations, comply with pertinent Board decisions, and *hold the pool of harmless* with respect to the new or modified generator connections.
- 9.3 The assessment, methodology and assumptions are consistent with the Transmission System Code issued by the Ontario Energy Board (OEB) on July 14, 2000, specifically the requirements outlined in Section 9.1 and IMO Market Manual 2, Part 10: Connection Assessment and Approval.

### 10.0 Definitions

10.1 "Sole Benefit" means with respect to the generator customer(s)'s modifications, updates, or addition of facilities to the transmission system which are triggered by a generator(s) connection needs (including reliability requirements and power quality needs or impacts) and are not prompted by the need to adequately supply the pool of load customers.

For greater certainty, "sole benefit" also includes modifications, updates, or addition of facilities to the transmission system, which have been triggered by a generator customer that may have an incidental pool use. If the transmitter would require to build, modify or upgrade such facilities in question within the next five years, customer(s) will then only be charged the incremental costs associated with the investment such as advancement charges.

10.2 "Hold the pool harmless" means the avoidance of negative impact on remaining load customers due to certain actions of new or modified transmission connection customers.



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10.3 *"Common Facilities"* means those facilities, which are shared and/or required by two or more generators to connect to Hydro One Networks Inc. transmission system.

All other terms have the meaning ascribed to them in the Transmission System Code.

### 11.0 Policy Maintenance

The Director – Network Strategy Division of Hydro One Networks Inc. – Operations Group will maintain this policy. Suggestions for changes should be forwarded to the Manager, Standards and Policies, Network Strategy Division.

### 12.0 Issuing Authority

This policy is issued on authority of the Chief Operating Officer of Hydro One Networks Inc. -Operations Group, and is effective immediately. Questions on the application of the policy should be addressed to the Manager, Standards and Policies, Network Strategy Division.

Approved by:
Dave Barrie
Chief Operating Officer
Hydro One Networks Inc. –Operations Group

# **Appendix 6**

### **POLICY**

Financial Contributions for New / Modified Transmission Load Connections



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POLICY:

Transmission - Financial Contributions for New or Modified Transmission (Load) Connections

### 1.0 Revision History

<u>Date</u>	Revision No.	<u>Modification</u>
January 1, 2002	R2	New Document

### 2.0 Purpose

The purpose of this policy is to establish the principles and rules to be applied in the "Financial and Economic Assessment" required for New and Modified Load connections.

The policy establishes fair practices and consistent procedures to be followed within Hydro One Networks Inc. as required by the Transmission System Code (the Code) for transmission customers considering new or modified load connections.

### 3.0 Scope

This policy shall apply to all load customers proposing to:

- (a) Modify or add a new load connection to Hydro One Networks Inc. facilities that triggers upgrades, modifications and/or addition of facilities, which require capital expenditure by Hydro One Networks Inc.
- (b) add a new or modify an existing connection that will bypass existing Hydro One Networks Inc.'s services.

The definition of terms used in this policy appears in Section 10. Italicized expressions used in this policy have the meanings ascribed in that section.

### 4.0 Governing Principles

- **4.1.** All load customers shall be treated in a consistent and fair manner.
- **4.2.** Hydro One Networks Inc. shall comply with all regulatory and license obligations related to the treatment of new and modified transmission load connections.



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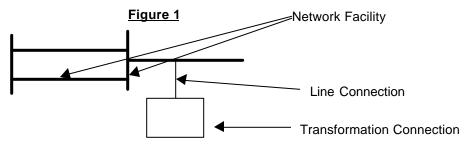
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**Transmission - Financial Contributions for New or Modified Transmission (Load) Connections** 

- **4.3.** Hydro One Networks Inc. shall take necessary actions to *hold the pool harmless*, where a proposed new or modified load connection may have an impact on the pool customers. In holding the pool harmless, minimum payment obligations and financial contributions shall be required in following cases:

  Code Section 9.2.2
- **4.3.1.** Hydro One Networks Inc.'s capital investments in the regulated network, transmission line and transformation connection pools are for the *sole benefit* of the specific load connection customers. If the investment had been planned by Hydro One Networks Inc. for the pool of load customers, then the new customer shall pay only the incremental costs, such as advancement charges, relating to its own needs. However, an investment triggered by a customer, that may have an incidental pool use, does not constitute load pool benefit and the customer shall pay for all the cost.
- **4.3.2.** Hydro One Networks Inc.'s tariff revenues derived on behalf of the pool of load customers are negatively impacted by:
  - (a) The transfer of existing load from Hydro One Networks Inc. facilities to an existing or new customer owned facility.
  - (b) The switching of an existing load to another service provider within or outside of Ontario or taking supply from another third party.
  - (c) Available capacity of an existing Hydro One Networks Inc.'s facility that is "effectively and economically" available to supply load.
  - (d) Installation of new embedded (load displacement) generation or reconnecting or otherwise utilizing existing local generation.





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Transmission - Financial Contributions for New or Modified Transmission (Load) Connections

**4.3.3.** The customer shall borne the financial and technical responsibility when its new or modified connection facility connected to the IMO-controlled grid results in a material increase in the fault levels at any existing customer's connection facilities which had been adequately designed.

### 5.0 Decision Rules

### 5.1. Regulatory Rules

In accordance with the Code:

- **5.1.1.** A transmission load customer, requiring new or modified connection facilities to connect to Hydro One Networks Inc.'s electrical system, may, at the customer's sole discretion, either:
- Arrange to design, construct, pay for, and own the new line connection and/or transformation connection facilities; -Or
  Code Sec. 9.2.1.1
- Opt for a pool-funded option for new line connection and/or transformation connection facilities that would be owned by Hydro One Networks Inc.

Code Sec. 9.2.1.2

**5.1.2.** When *network facilities* upgrades are for the *sole benefit* and uniquely attributable to the load customer or a group of load customers, the installations and maintenance costs shall be borne and/or shared by the customer(s) and not pooled.

### 5.2. Pooled versus Non-Pooled costs

Code Appendices 4 & 5

**5.2.1.** Pooled costs for investments refers to those capital investments on the Transmission Facilities that are required to meet the integrated needs (e.g. to relieve congestion, to increase transfer capabilities or to increase the supply capacities) of the pool of load customers and are required to incorporate a new or modified transmission load connection. A customer is NOT required to pay for such investments on Transmission Facilities.



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5.2.2. Non-pooled costs for investments are those capital investments on the transmission facilities that are required to incorporate a new or modified transmission load connection, the absence of which will not impact other customers, and are for the sole benefit of that customer or group of customers. Applying the "negative" test will determine whether these costs are pooled or not pooled i.e. the absence of the investment has no impact on other load customers.

There are two components to non-pooled investments. Hydro One Networks Inc. shall recover the cost of Non-pooled investments from a customer as follows:

- a. An upfront payment of actual costs associated with non-pooled Transmission Facilities attributable to SCADA, Protection or Communication at upstream Transmission Facilities, and
- Guaranteed Revenues associated with each of the respective regulated pools and applicable capital contribution for all costs associated with Nonpooled investments for Line connection and Transformation connection (Appendix A).

### 5.3. Connection & Cost Recovery Agreement

When a load customer opts for the pool-funded option associated with a new or modified load connection a "Connection & Cost Recovery Agreement (CCRA)" shall be signed between Hydro One Networks Inc. and the customer. The CCRA shall include, without limitation, the following:

**5.3.1.** The scope of work for the project, total costs of necessary system upgrades (poolable and non-poolable) with breakdown of the costs of each major categories of work being performed (Structures, Line, Isolation Devices, Transformation, Real Estate, Protection & Control, Tele Protection, and SCADA), utilization rules for existing facilities and customer's total payment obligations.



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**Transmission - Financial Contributions for New or Modified Transmission (Load) Connections** 

**5.3.2.** A clause whereby the customer shall agree to provide Hydro One Networks Inc. with a copy of their monthly billing associated with the facilities in the CCRA within sixty (60) days of Hydro One Networks Inc.'s request, or authorize the IMO to provide such records to Hydro One Networks Inc. This information shall only be used by Hydro One Networks Inc. to reconcile the forecasted load revenue vs. actual revenue and shall be treated as confidential.

## 5.4. Customer's total Minimum Payment Obligations

The customer's total Minimum Payment Obligations (MPO) shall be based upon

- (a) Payments designed to recover total investment costs of new facilities over Economic Study Horizon (ESH) (Appendix A)
- (b) Payments from loads on existing Transformation and Line connection facilities serving the customer (Appendix A), and
- (c) Payments for future loads that may "Economically and Effectively" be served from existing and unused Hydro One Networks Inc. capacity (Appendix A).

When a customer opts for a pool-funded option, total investment cost of new facilities is achieved from customer's total payment obligations by considering the following.

### 5.4.1. Total Investment Costs

The calculations of Hydro One Networks Inc.'s "Total Investment Costs" shall consider, without limitation, the following:

- (a) An estimate of all capital costs directly associated with the connection expenditure for the project at in-service date including incremental overhead rates on capital; and
- (b) Advancement costs of replacing elements before their estimated end of life; and



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**Transmission - Financial Contributions for New or Modified Transmission (Load) Connections** 

- (c) Incremental costs of reinforcing and/or upgrading Network, Transformation and Line connection elements to the next practical rating.
- (d) Hydro One Networks Inc.'s approved rate of return including incremental OM&A and costs to operate and maintain the new connection, and any applicable taxes.
- **5.4.2.** Hydro One Networks Inc. shall conduct a Risk Profile analysis to establish the customer's risk profile and determine the appropriate Economic Study Horizon (ESH) for the project. As per the Code, ESH for the Capital Cost Recovery shall be as follows:

Risk	Economic Study Horizon (ESH)
High Risk	5 Years
Med. – High Risk	10 Years
Med. – Low Risk	15 Years
Low Risk	25 Years

Code Section 9.2.2. & Appendix 4. Sec 6

- **5.5.** Where additional customers connecting to the new facilities at a future time benefit from those facilities, the new customer shall share the obligations of the first customer. In such an event, the initial customer who had made a capital contribution shall then be entitled to a rebate based on apportioned benefit for the remaining period of the ESH.

  Code Section 9.3.
- **5.6.** The mechanism for "Financial and Economical Assessment" to determine a project's economic feasibility, risk to cost recovery by Hydro One Networks Inc. and its associated transmission pool, projected cost recovery from the incremental load revenue, minimum payment obligations, up-front capital contribution and settlement process as described in Appendix A of this policy shall be used.

# 6.0 Exceptions



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None

## 7.0 Specific Circumstances

Hydro One Networks Inc. may consider specific circumstances on an individual basis.

#### 8.0 References

- **8.1.** Transmission System Code
- **8.2.** IMO Market Manual 2, Part 10: Connection Assessment and Approval.

#### 9.0 Rationale

- **9.1.** New and/or modified customer load connections to Hydro One Networks Inc.'s transmission system that are for the *sole benefit* of the customer may unfairly shift additional capital costs to the remaining customers and drive transmission rates higher as a result of the construction of new facilities. The costs of system modifications, upgrades and/or additions triggered by the load connection customer for its *sole benefit* should, therefore, be recovered from said load customer.
- **9.2.** New supply situations can exist where customers avoid one or more transmission or distribution pool rates or change suppliers by the construction of new facilities. If a customer avoids existing Hydro One Networks Inc. facilities or rates, revenue is lost which unfairly shifts costs to the remaining customers and drives rates higher. The customers causing such impacts should therefore be required to hold the pool harmless.
- **9.3.** Hydro One Networks Inc. is required to meet its transmission license obligations, comply with pertinent Board decisions, and *hold the pool harmless* with respect to the load modifications and connections.
- **9.4.** The assessment, methodology and assumptions are consistent with the Transmission System Code issued by the Ontario Energy Board (OEB) on July 14, 2000, specifically the requirements outlined in Section 9.2, Appendices 4 and 5.



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#### 10.0 Definitions

**10.1.** "Sole Benefit" means the benefits derived from the transmission customer's modifications, updates, or addition of facilities which are triggered by a customer's connection transformation needs (including reliability requirements and power quality needs or impacts), and are not prompted by the need to adequately supply the pool of load customers.

For greater certainty, "sole benefit" also includes modifications, updates, or addition of facilities to the transmission system, which have been triggered by a customer that may have an incidental pool use. However, if the transmitter would require to build, modify or upgrade such facilities in question within the next five years, customer(s) will then only be charged the incremental costs associated with the investment such as advancement charges.

- **10.2.** *"Hold the pool harmless"* means the avoidance of negative impacts on remaining customers due to the actions of new or modified transmission connection customers.
- 10.3. "Network facilities" means facilities which are part of the interconnected bulk power system. Network facility driven projects include those designed to enhance and/or expand the transmission system to relieve congestion, increase transfer capabilities, or to increase the supply capacities. Most enhancement projects on network facilities have multiple purposes (e.g. system security, congestion relief, interconnection capacity increase, compliance of criteria and standards, etc.) and their benefits generally extend to groups of end-users in a large geographic area. Where no beneficiaries can be identified, these projects will continue to be funded by and included in the regulated network pool of the transmitter subject to the IMO's consideration and Board approval under section 92 of the Ontario Energy Board Act, 1998.



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**10.4.** *"New Embedded* Generation" means embedded generation for which approvals were obtained on or after October 30, 1998.

All other terms have the meanings ascribed to them in the Transmission System Code.

# 11.0 Policy Maintenance

This policy will be maintained by the Director – Network Strategy in Hydro One Networks Inc. Network Management, and reviewed / revised annually. Suggestions for changes should be forwarded to the Manager, Standards and Policies, Network Strategy Division.



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# 12.0 Issuing Authority

This policy is issued on authority of the Chief Operating Officer of Hydro One Networks Inc. Operations Group and is effective immediately. Questions on the application of the policy should be addressed to the Manager, Standards and Policies, Network Strategy Division.

Approved by:
Dave Barrie
Chief Operating Officer
Hydro One Networks Inc Operations Group

# 13.0 Appendices

Appendix A - Financial and Economical Assessment

# **Appendix A**

**Financial and Economical Assessment** 

# **Financial and Economical Assessment**

#### Introduction

The Hydro One Networks Inc. "Financial and Economical Assessment" is used to assess projects economic feasibility and determines a customer's capital contributions. The assessment, methodology and assumptions are consistent with the Transmission System Code issued by the Ontario Energy Board (OEB) on July 14, 2000.

To achieve consistent business principles and keep the pool harmless, the parameters as defined in this section shall be considered by Hydro One Networks Inc. in the financial and economic analysis for Capital Cost Recovery (CCR). These parameters shall determine customer Minimum Payment Obligations (MPO) to recover the total investment costs of new facilities.

# 1.0 Risk Profile Analysis

Hydro One Networks Inc. shall establish a customer's risk profile based upon its bond rating and specify an Economic Study Horizon (ESH) for the economic assessment of the new connection. Customers requiring new facilities are required to provide their latest credit rating information to Hydro One Networks Inc.

When a bond rating is not available, the risk profile and ESH shall be established using a credit score based on the customer's audited financial statements. Customers are required to provide the most recent 3 years of audited financial statements to Hydro One Networks Inc.

The credit score that shall be used is the Altman Z-test (see below for details) or equivalent methodology.

If audited financial statements are not available, risk analysis shall be conducted and a risk profile determined at the sole discretion of Hydro One Networks Inc. Hydro One Networks Inc. also reserves the right to adjust the risk rating for material information not incorporated in either the bond rating or credit score. For new customers, who may not have established credit profile, Hydro One Networks Inc. may consider an acceptable form of prudential security for the total project cost, such as irrevocable letter of credit. In such cases, ESH shall not exceed 15 years.

ESH for the purposes of determining Capital Cost Recovery shall be as per the table below. Where the new connection is for a project having a finite life (e.g., a new mine with 10

years of proven reserves), the ESH will be based on the risk of the project, not the risk rating of the customer.

#### **RISK and ESH Table**

Bond R	ating*	Altman Z - Score	Risk Profile	ESH
CC	C and below	=1.8	High Risk	5 Years
BE	3 - B	1.81 – 2.670	Medium High Risk	10 Years
Industrial AAA	- BBB	2.68 – 2.99	Medium Low Risk	15 Years
Non-industrial A	A - BBB			
Non-industrial A	A - AAA	>2.9	Low Risk	25 Years

<sup>\*</sup> 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 other rating agencies would apply.

# **Altman Z General Model**

The Altman Z Score is calculated as:

$$Z = 6.56 * X_1 + 3.26 * X_2 + 6.72 * X_3 + 1.05 * X_4$$

Where,

X₁=net working capital/total assets

X<sub>2</sub>=retained earning/total assets

X<sub>3</sub>=earning before interest and taxes (EBIT)/total assets

X<sub>4</sub>=book value of share holders equity/ total liabilities

# 2.0 Ratings and Loading Criteria of existing facilities for the purposes of CCR

The standard practice to calculate available capacity will be based upon the following loading criteria or as established by Hydro One Networks Inc.:

Ratings and Loading Criteria of Existing Facilities

Transformer Stations	Line Connections	Low Voltage Feeders
The Ten Day Limited Time	The lesser of the capacity of the	44.00kV Feeder 25.00 MVA
Rating (10 Day LTR) of a	Transmission Line Connection	27.60kV Feeder 16.70 MVA
transformation station as	-Or-	27.00KV T GEGET TO.70 WVA
established by Hydro One	The Transformation Facility based	13.80kV Feeder 8.00 MVA
Networks Inc.	on Ten Day Limited Time Rating	As established by Hydro One
	(10 Day LTR) of that facility as	Networks Inc.
	established by Hydro One	
	Networks Inc.	

For shared facilities, there shall be a determination of the proportion of the shared facility that should be allocated to the customer. Hydro One Networks Inc. at it sole discretion, may provide exceptions to the above practice if there are satisfactory operating arrangements and agreements in place with a customer.

#### 3.0 Available Capacity

Available Capacity is that portion of the existing capacity, which can "effectively & economically" with Hydro One Networks Inc.'s agreement, supply the customer's peak load. This applies to Hydro One Networks Inc. owned facility, shared facilities and customer owned facilities. The following rules shall apply in the determination of Available Capacity:

- (a) Any part of the existing capacity that cannot "effectively & economically" be utilized to serve the new load shall be excluded from the Available Capacity. The determination of effective and economic capacity shall be based upon the least capital cost option to supply the "end user".
- (b) When the customer's forecasted incremental load (step load) is such that it can not be supplied in entirety from the existing Available Capacity, the remaining Available Capacity will be excluded for the purposes of CCR. However, it the actual

incremental load remains below the existing Available Capacity by the end of the following calendar year after the new facility had been put in-service, customer shall not receive credit for the incremental load against the CCR for new facility until incremental load exceeds the existing Available Capacity.

- (c) When a customer requests a certain portion of Available Capacity to be excluded for CCR calculations, the customer shall demonstrate to Hydro One Networks Inc. and Hydro One Networks Inc. shall agree that this portion can not be "effectively and economically" utilized to serve the new load.
- (d) The customer shall maintain the current loading of existing facilities, normal load growth and with no intentional transfer or by-pass, until the customer's MPO has been paid.

#### 4.0 Customer's Load Forecast

The customer's load forecast is defined as the incremental load over and above the current "Annual Peak Load" that is used to justify the project and is provided to Hydro One Networks Inc. for the purposes of conducting the financial and economic assessment required to determine of capital contribution required to keep the pool harmless.

#### 5.0 Peak Load Index and Base Load Trigger Point for CCR

Peak Load Index (PLI) is calculated using the most recent three-year average of one twelfth of the sum of Twelve Monthly Peaks during the year divided by the year's Annual Peak.

PLI = [(sum of Twelve Monthly Peaks)/Annual Peak\*12]

Base Load Trigger Point = 3 yr. Avg. PLI \* Available Capacity

The customer shall receive credit toward CCR for base load greater than "Base Load Trigger Point" only if their Annual Peak is greater than the Available Capacity during the same twelve-month period.

#### 6.0 Minimum Payment Obligations

The customer's total "Minimum Payment Obligations" (MPO) shall be based upon

- (a) Payments designed to recover Total Investment Costs of new facilities over ESH. The MPO to recover the total investment costs of new facilities is calculated as the forecasted annual revenue stream to be collected by Hydro One Networks Inc. based upon the customer's incremental load over the lesser of the Economic Study Horizon or the period of time required to reach breakeven (NPV = 0).
- (b) Payments for present loads on existing Transformation and Line connection facilities serving the customer
- (c) Payments for future loads that may "Economically and Effectively" be served from existing unused capacity installed by Hydro One Networks Inc.

The following rules shall apply in the determination of payments for present loads and future loads that can be supplied from existing facilities:

- (1) A customer transferring existing load from Hydro One Networks Inc.'s facilities to its own facilities shall continue to pay Hydro One Networks Inc. an amount equal to the avoided payment based upon the historical load and prevailing tariffs as if there were no transfer.
- (2) A customer connecting its load to another transmission service provider or taking supply from an energy provider or a third party in a manner that results in the bypass of Hydro One Networks Inc.'s facilities and associated tariff rates, shall pay Hydro One Networks Inc. an equivalent amount of avoided revenue as if there was no change.
- (3) A customer supplying load from a new customer owned facility when Hydro One Networks Inc. has economic spare capacity available on its existing facilities that can effectively and economically supply such load, shall compensate Hydro One Networks Inc. for the equivalent amount of avoided revenue based on the new load as if the load were supplied from Hydro One Networks Inc. facilities.

- (4) A customer installing new embedded (load displacement) generation of a total of 1MW or more shall pay transmission connection rates, other than Network transmission rates, on the basis of gross load as if such embedded generation was not installed.
- (5) A customer re-connecting to or otherwise utilizing existing local generation shall pay Hydro One Networks Inc. an amount equal to the forgone revenue based upon the load as if there were no changes.

#### 7.0 Capital Contribution

If the forecasted revenues from transmission connection rates, based upon the customer's forecasted incremental load are not sufficient to recover the Hydro One Networks Inc.'s "Total Investment Cost" associated with the customer's connection within the ESH, the customer shall be required to pay Hydro One Networks Inc. a Capital Contribution. This capital contribution is required to hold the respective connection pools harmless. The capital contribution shall not exceed the difference between the present value of the projected capital costs and on-going maintenance and other related incremental costs for the connection, and the present value of the projected incremental line connection pool or transformation pool revenue provided by those facilities over the ESH.

#### 8.0 Settlements and True Ups

- 8.1 Settlements shall be done periodically during the CCRA contract period based upon the customer's risk profile and Economic Study Horizon as follows:
  - (a) True Up shall be required on an annual basis for a High Risk Customer (5yr ESH)
  - (b) True Up shall be required on a Triennial basis for Med. High Risk (10yr TH) -Or- Whenever the cumulative shortfall of actual revenues versus the forecasted MPO is greater than 20% of the forecast. The True Up shall be for the total current shortfall in the account.
  - (c) True Up shall be required every five year for Med. Low and Low Risk customer's -Or- Whenever the cumulative shortfall of actual revenues versus

the forecasted MPO is greater than 20% of the forecast. The True Up shall be for the total current shortfall in the account.

- 8.2 Customers shall receive a credit on their account if revenue exceeds the required amount. The credits will be applied to any shortfalls in future years over the ESH, and
  - 8.2.1 If the "Total Investment Cost" is recovered prior to the ESH as set out in the CCRA, the customer shall be relieved of any subsequent load guarantees for the new facility in the CCRA to Hydro One Networks Inc.
  - 8.2.2 The customer shall thereafter maintain the current loading and normal load growth of all Hydro One Networks Inc. facilities with no intentional transfer or by-pass.
  - 8.2.3 When there is negative load growth due to reasons beyond customer's control, Hydro One Networks Inc. shall not penalize customer for a reduction of load on Hydro One Network Inc.'s facilities that is in same proportion as on the customer owned facility.

#### 9.0 Additional Prudential Security

Hydro One Networks Inc. reserves the right to require additional prudential security such as an irrevocable letter of credit when necessary.

# **Appendix 7**

# Connection & Cost Recovery Agreement (CCRA) Template

(Note: The attached templates are subject to future changes)

# **CCRA** Template

For

# Connection of a Generator to Hydro One's Transmission System

(Note: The attached template is subject to future changes)

**WHEREAS** Hydro One is agreeable to performing the work required for the Connection on the following terms and conditions; and

**NOW THEREFORE** in consideration of the mutual covenants, agreements, terms and conditions herein and other good and valuable consideration, the receipt and sufficiency of which is hereby irrevocably acknowledged, the parties agree as follows:

- 1. Each of the Parties hereto confirms the truth and accuracy of the recitals and agrees that the recitals form part of this Agreement.
- 2. Subject to Section 29 and the termination rights herein, this Agreement shall be in full force and effect and binding on the parties as of the date first written above (the "Effective Date") and shall expire on the Ready for Service Date (the "Term").

#### Representations and Warranties

- 3. Each party represents and warrants to the other that:
- (a) it has all the necessary corporate power, authority and capacity to enter into this Agreement and to perform its obligations hereunder; and
- (b) the execution of this Agreement and compliance with and performance of the terms, conditions, and covenants contemplated herein have been duly authorized by all necessary corporate action on its part.

#### **Hydro One Connection Work**

- 4. Hydro One shall perform the Hydro One Connection Work in a manner consistent with Good Utility Practice, in compliance with all Applicable Laws, including, but not limited to the Transmission System Code, and using duly qualified and experienced people.
- 5. Hydro One's responsibilities under this Agreement with respect to the Connection are limited to the performance of the Hydro One Connection Work.
- 6. Notwithstanding Section 5 above, Hydro One shall use reasonable efforts to obtain warranties for the Connection Materials that are transferable to the

Generator in the event that the Generator takes title to the Connection Materials in accordance with the terms of this Agreement.

- 7. Except as provided herein, Hydro One makes no warranties, express or implied, and Hydro One disclaims any warranty implied by law, including implied warranties of merchantability or fitness for a particular purpose and implied warranties of custom or usage with respect to the Hydro One Connection Work.
- 8. Hydro One shall comply with the terms and conditions of access attached hereto as Schedule "G" when accessing the Generator's Facilities or site.
- 9. The Hydro One Connection Work and Hydro One's rights and requirements hereunder, including, but not limited to:
- (i) Hydro One's specifications of the protection equipment on the Generator's side of the Connection Point:
- (ii) Hydro One's acceptance of power system components on the Generator's side of the Connection Point; and
- (iii) Hydro One's acceptance of the technical specifications (including electrical drawings) for the Generator's Facilities;

are solely for the protection of Hydro One's transmission system and for no other purpose.

- 10. Hydro One shall use reasonable efforts to complete the Hydro One Connection Work by the date specified as the Ready for Service Date in Schedule "D" provided that:
- (a) the Generator executed and returned this Agreement to Hydro One by no later than the date specified as the Execution Date in Schedule "D":
- (b) the Generator has completed the Generator Connection Work in accordance with the terms and conditions of this Agreement;
- (c) the Generator is in compliance with its obligations under this Agreement;
- (d) any work required to be performed by third parties has been performed in a timely manner and in a manner to the satisfaction of Hydro One, acting reasonably;
- (e) there are no delays resulting from Hydro One not being able to obtain outages from the Independent Electricity Market Operator required for the Hydro One Connection Work;
- (f) Hydro One does not have to use its employees, agents and contractors performing the Hydro One Connection Work elsewhere on its

- transmission system or distribution system due to an Emergency (as that term is defined in the Transmission System Code) or an event of force majeure;
- (g) Hydro One is able to obtain the materials required to perform the Hydro One Connection Work with the expenditure of Premium Costs where required;
- (h) where required, Hydro One received leave to construct pursuant to Section 92 of the *Ontario Energy Board Act*, 1998 (being Schedule "B" to the *Energy Competition Act*, S.O. 1998, c. 15) by the date specified as the Approval Date in Schedule "D";
- (i) Hydro One received the easement described in Section 27 hereof by the Easement Date specified in Schedule "D".
- 11. Upon completion of the Hydro One Connection Work, Hydro One shall own, operate and maintain all equipment referred to in Schedule "F".

#### **Generator's Obligations – Connection**

- 12. Except as specifically provided herein, the Generator is responsible for obtaining any and all permits, certificates, reviews and approvals required under any Applicable Laws for the construction, connection and operation of the Generator's Facilities.
- 13. In addition to its obligations under Section 12 above, the Generator is responsible for meeting the requirements of the IMO which is the entity responsible for approving the Connection and will set the limits on the operation of the New Facility. The aforementioned requirements, include, but are not limited to, the Generator entering into any agreements required by the IMO in order to permit the Connection and the Generator complying with the *Market Rules*.
- 14. The Generator shall perform the Generator Connection Work at its own expense and in a manner consistent with Good Utility Practice, in compliance with all Applicable Laws, including, but not limited to the Transmission System Code, and using duly qualified and experienced people.
- 15. The Generator shall comply with the terms and conditions of access attached hereto as Schedule "G" when accessing Hydro One's Facilities or site.
- 16. The Generator acknowledges and agrees that:
- (a) it shall provide, operate and maintain all power system components on the Generator's side of the Connection Point, including, without

- limitation, all transformation, switching, metering and auxiliary equipment such as protection and control equipment;
- (b) all of the power system components referred to in Subsection 16(a) above are subject to the acceptance of Hydro One with regard to Hydro One's requirements to permit Connection; and
- (c) it shall provide technical specifications for the Generator's Facilities as required for Hydro One's reviews. Until Hydro One has accepted the technical specifications (including electrical drawings) for the Generator's Facilities and accepted the Generator's verification of those portions of the Generator's electrical facilities affecting Hydro One's transmission system, Hydro One shall not be bound to complete the Hydro One Connection Work.
- 17. Upon completion of the Hydro One Connection Work, the Generator acknowledges and agrees that:
- (a) it shall continue to provide separate telecommunication circuits for the metering and SCADA requirements and will do so for as long as the Generator's Facilities remain connected to Hydro One's transmission system;
- (b) ownership and title to the equipment referred to in Section 11 above shall throughout the Term and thereafter remain vested in Hydro One and the Generator shall have no right of property therein;
- (c) where Hydro One has equipment for automatic reclosing of circuit breakers after an interruption for the purpose of improving the continuity of feeder connection, it shall be the obligation of the Generator to provide adequate protective equipment for the Generator's facilities that might be adversely affected by the operation of such reclosing equipment;
- (d) it shall provide such equipment as may be required from time to time by Hydro One for the prompt disconnection of any of the Generator's apparatus that might negatively affect the proper functioning of Hydro One's reclosing equipment;
- (e) unless specified otherwise in Schedule "D" or in the Connection Agreement, the Generator's Facilities' equipment shall not be allowed to automatically reclose after an interruption unless the Generator has specific prior approval from Hydro One; and
- (f) it shall provide Hydro One with copies of the documentation specified in Schedule "D", acceptable to Hydro One, by no later than 60 days after the In Service Date and the Generator shall ensure that Hydro One may retain this information for Hydro One's ongoing planning, system design, and operating review; and

(g) it shall maintain and revise the documentation referred to in Subsection 17(e) above to reflect changes to the Generator's Facilities and provide copies to Hydro One on demand or as specified in the Connection Agreement.

#### **Cost of Hydro One Connection Work**

18. The Generator shall pay the Actual Cost of the Hydro One Connection Work which is estimated to be the amount specified in Schedule "D" (plus applicable taxes) in the manner specified in Schedule "D".

Within 120 days after the Ready for Service Date, Hydro One shall provide the Generator with a final invoice or credit memorandum which shall indicate whether the amounts already paid by the Generator exceeds or is less than the Actual Cost of the Hydro One Connection Work. Any difference between the Actual Cost (plus applicable taxes) and the amount already paid by the Generator shall be paid within 60 days after the rendering of the said final invoice or credit memorandum, by Hydro One to the Generator, if the amount already paid by the Generator exceeds the Actual Cost (plus applicable taxes), or by the Generator to Hydro One, if the amount already paid by the Generator is less than the Actual Cost (plus applicable taxes).

- 19. In addition to the final invoice or credit memorandum to be provided by Hydro One in accordance with Section 18 above, Hydro One shall also provide the Generator with a Statement of Actual Costs in the form attached hereto as Schedule "E".
- 20.1 Hydro One shall reimburse the Generator for any amount of the cost of the Hydro One Connection Work, to the extent, if any, that Hydro One is able to collect such costs from another generator or generators connecting to Hydro One's transmission system at or in the vicinity of (insert name of facility/facilities) who will make use of the aforementioned Hydro One Connection Work (the "Benefiting Generator"). Notwithstanding the foregoing, if Hydro One reimburses the Generator in accordance with this Section 20.1 and the OEB subsequently determines that Hydro One should not have collected such amounts from the Benefiting Generator, the Generator agrees to refund any amounts reimbursed to the Generator by Hydro One hereunder.
- 20.2 Nothing contained within this Agreement, including, Section 20.1 hereof, shall preclude, prevent, prohibit or operate as a waiver of any of the parties rights to:

- (i) make application to the OEB;
- (ii) participate in any hearings before the OEB; or
- (iii) make any appeals to a Court of competent jurisdiction regarding any decision by the OEB;

#### with respect to:

- (A) the cost and the allocation of the costs hereunder,
- (B) the cost and the allocation of costs of the System Upgrades notwithstanding Hydro One's decision not to allocate any costs of this work to the Generator at this time:
- (C) the cost and the allocation of costs to a Benefiting Generator pursuant to Section 20.1 above: or
- (D) any other costs and the allocation of any other costs associated with, related to, or arising out of the Connection.
- 20.3.1 For the purposes of Section 20.2(b) above and 20.3.2 and 20.4 below, the term System Upgrades means the system upgrades at XXXXX referenced by the IMO in the System Impact Assessment dated (insert date) and in written communications made to Hydro One by the IMO.
- 20.3.2 The Generator shall pay Hydro One for any system upgrade costs related to the XXXXX System Upgrades that the OEB subsequently determines should have been paid by the Generator. Hydro One shall refund to the Generator any amounts paid by the Generator in accordance with the terms of this Agreement that the OEB subsequently determines that Hydro One should not have collected from the Generator.
- 20.4 Notwithstanding the generality of Section 33 below, the Generator hereby forever releases and discharges Hydro One from any and all claims, demands, actions and causes of action, for any income or profits lost or costs incurred by the Generator which the Generator may now have or hereafter may have associated with, related to or arising out of Hydro One not proceeding with the XXXX System Upgrades within the timelines referenced in the System Impact Assessment dated (insert date), and in written communications made to Hydro One by the IMO or not proceeding with the XXXXX System Upgrades at all.

Note to draft: 20.2(b), 20.3/20.4 are only required if we agree to forego collecting money from the Generator for another project until the OEB determines allocation.

20.5 Sections 20.1, 20.2, 20.3 and 20.4 shall survive the termination of this Agreement.

21. As this Project is schedule-driven and as the estimated costs in Section 18 is based upon normal timelines for delivery of material and performance of work, in addition to the amounts that the Generator is required to pay pursuant to Section 18 above, the Generator agrees to pay Hydro One's Premium Costs if the Generator causes or contributes to any delays, including, but not limited to, the Generator failing to execute this Agreement by the Execution Date specified in Schedule "D".

Hydro One will obtain the Generator's approval prior to Hydro One authorizing the purchase of materials or the performance of work that will attract Premium Costs.

The Generator acknowledges that its failure to approve an expenditure of Premium Costs may result in further delays and Hydro One will not be liable to the Generator as a result thereof. The Generator shall pay any prior-approved Premium Costs within 60 days after the date of Hydro One's invoice therefor. Interest shall be payable at the rate of 18 per cent per year on all overdue payments. The obligation to pay any amount hereunder shall survive the termination of this Agreement.

- 22.1(a) If the Project is cancelled, this Agreement is terminated for any reason whatsoever other than breach of this Agreement by Hydro One, the Generator shall pay Hydro One's Actual Costs incurred on and prior to the date that the Project is cancelled or this Agreement is terminated, including the preliminary design costs and all costs associated with the winding up of the Project, including, but not limited to, storage costs, facility removal expenses and any environmental remediation costs.
- (b) If the Generator wishes to defer the Connection, the Parties will negotiate the terms of such deferral.
- 22.2. Upon the occurrence of any of the events listed below, all Connection Materials ordered for the Project will be dealt with in accordance with this Section 22.2:
- (i) the Project is cancelled; or
- (ii) this Agreement is terminated for any reason whatsoever other than breach of this Agreement by Hydro One:
- (a). Subject to the terms and conditions of each purchase order in respect of the Connection Material, the Generator shall have the right to notify Hydro One in writing as to when which purchase orders are to be cancelled. Hydro One shall, upon receiving such written notice, notify each supplier of the

cancellation of the applicable purchase orders. With respect to those purchase orders not cancelled or otherwise not cancellable, Hydro One and the Generator will agree as to the period within which Hydro One shall provide written notice to the Generator listing the individual items of Connection Material it will purchase. Hydro One shall refund the Generator any amounts the Generator has already paid Hydro One for these items less Hydro One's Actual Costs of procuring the Connection Materials, having the Connection Materials delivered and storing same.

- (b) With respect to the remainder of the Connection Materials that are not being purchased by Hydro One under Subsection 22.2(a) above, the Generator shall have the following options:
- 1) where Connection Materials have been ordered but all or part of the Connection Materials have not been received by Hydro One, the Generator shall have the right to require Hydro One, at the Generator's sole expense and discretion, to:
  - (i) continue with the purchase of the Connection Material and transfer title to the Connection Material on an "as is, where is basis" to the Generator upon the Generator paying Hydro One the Actual Costs of procuring the Connection Material. The Generator shall be responsible for taking delivery of the Connection Material at its sole expense; or
  - (ii) where possible, pay the cancellation costs associated with the cancellation of the order whereby Hydro One will refund the difference between the amounts provided by the Generator hereunder and the cancellation costs provided that the Generator has paid Hydro One's Actual Costs of procuring the Connection Material.

If the Generator does not exercise either of the above options or a combination thereof by no later than 30 days after Hydro One provided written notice to the Generator listing the individual items of Connection Material which it will purchase in accordance with Subsection 22.2(a) above, Hydro One will proceed, where possible, as if the Generator exercised the option described in Subsection 22.2(b)1)(ii) and for any Connection Material where 22.2(b)1)(ii) is not possible, proceed in accordance with subsection 22.2(b)1)(i).

2) where all or part of the Connection Materials have been received by Hydro One, the

Generator shall have the right to require Hydro One, at the Generator's sole expense and discretion, to

- (i) transfer title to the Connection Material on an "as is, where is basis" to the Generator upon the Generator paying the Actual Costs of procuring the Connection Materials, having the Connection Materials delivered and storing same; or
- (ii) provided that the parties can agree on a salvage value for the Connection Material, pay the Generator the salvage value of the Connection Material and any accrued interest; provided that the Generator has paid Hydro One the Actual Costs.

If the Generator does not exercise either of the above options or a combination thereof by no later than 30 days after Hydro One provided written notice to the Generator listing the individual items of Connection Material which it will purchase in accordance with Subsection 22.2(a) above Hydro One will proceed, as if the Generator exercised the option described in subsection 22.2(b) 2)(i).

- 22.3 The Generator shall pay the Actual Costs referred to in Sections 22.21 and 22.2 above within 60 days after the date of Hydro One's invoice therefor. Interest shall be payable at the rate of 18 per cent per year on all overdue payments. The obligation to pay any amounts under Sections 22.1 and 22.2 shall survive the termination of this Agreement.
- 23. In the event that the Generator sells, leases or otherwise transfers or disposes of all or part of the Generator's Facilities to a third party during the Term of this Agreement, the Generator shall cause the purchaser, lessee or other third party to whom the Generator's Facilities are transferred or disposed to enter into an assumption agreement with Hydro One to assume all of the Generator's obligations in this Agreement; and notwithstanding such assumption agreement, the Generator shall remain obligated to pay the amounts thereafter payable pursuant to Sections 18, 21, 22.1, 22.2 and 29 hereof by the purchaser, lessee or other third party in the case of a transfer or disposition.

#### **Security Requirements**

24. By no later than the date specified in Schedule "D" as the Security Date, the Generator shall provide Hydro One with security as specified in Schedule "D".

#### No By-Pass

25.1 The Generator represents and warrants to Hydro One that the Generator is the owner of the New Transmission Facilities.

#### 25.2 The Generator:

- (a) shall not Transmit or Distribute electricity using the Generator's Facilities to any load now or hereafter supplied from Hydro One's Facilities or Third Party Facilities and if the Generator does so, the Generator shall pay Hydro One an amount equal to the avoided applicable Transmission Rates as if the load remained on Hydro One's Facilities or the Third Party Facilities, as the case may be, until the date that:
  - (i) Hydro One's Facilities or the Third Party Facilities are removed from service at endof-useful-life and are not replaced by new transmission facilities; or
  - (ii) Hydro One requires Hydro One's Facilities to provide transmission services to other Generators or the affected third party requires the Third Party Facilities to supply its customers.
- (b) shall not permit any third party to transmit or distribute electricity using or by connecting to the Generator's Facilities or in any other manner, to any load now or hereafter supplied from Hydro One's Facilities or the Third Party Facilities and if the Generator does so, the Generator shall pay Hydro One an amount equal to the avoided applicable Transmission Rates as if the load remained on Hydro One's Facilities or the Third Party Facilities until the date that:
  - (i) Hydro One's Facilities or the Third Party Facilities are removed from service at endof-useful-life and are not replaced by new transmission facilities; or
  - (ii) Hydro One requires Hydro One's Facilities to provide transmission services to other customers or the affected third party requires the Third Party Facilities to supply its customers.
- (c) shall not supply new load growth using the Generator's Facilities or the Third Party Facilities when Hydro One has spare capacity available at Hydro One's Facilities to supply such load; and if it does so, the Generator shall pay Hydro One an amount equal to the avoided applicable Transmission Rates by paying as if the new load were supplied from the Hydro One Facilities. Notwithstanding the foregoing, the

Generator will not owe any amounts to Hydro One, if the Generator can demonstrate to the satisfaction of the Hydro One, acting reasonably, that it would have been uneconomic or inefficient for the Generator to supply the load growth in question using Hydro One's Facilities.

(d) shall cause the purchaser, lessee or other third party to whom the Generator sells, leases, or otherwise transfers or disposes of the New Transmission Facilities to enter into an assumption agreement with Hydro One to assume all of the Generator's obligations under this Section 25.2.

25.3 Nothing contained within this Agreement, including, without limiting the generality of the foregoing, Section 25.2, shall preclude, prevent, prohibit or operate as a waiver of any of the Parties' rights to:

- (i) make application to the OEB;
- (ii) participate in any hearings before the OEB; or
- (iii) make any appeals to a Court of competent jurisdiction regarding any decision by the OEB,

with respect to any matter, issue, thing, interpretation, consideration or consequence whatsoever that is related to:

- A. the Transmission or Distribution of electricity to any load now or hereafter supplied from Hydro One's Facilities or the facilities of any licensed electricity distributor by the Generator or by a third party using the New Transmission Facilities to supply said load;
- B. the interpretation or application of Section 25.2 above; and
- C. the Transmission and Distribution of electricity to any load now or hereafter supplied from Hydro One facilities other than Hydro One's Facilities or from facilities of any licensed electricity distributor by any other generator or by a third party.
- 25.4 Section 25.2 shall be subject to and applied in accordance with any Order or decision made by the OEB or any court with respect to any matter, issue, thing, interpretation, consideration or consequence that relates to:
- (i) the Transmission and Distribution of electricity to any load now or hereafter supplied from Hydro One's Facilities or the facilities of any

- licensed distributor by the Generator or by a third party using the New Transmission Facilities to supply said load; and
- (ii) the terms and conditions of Section 25.2.
- 25.5 With respect to any Order or decision of the OEB or a court relating to the Transmission or Distribution of electricity to any load now or hereafter supplied from facilities other than Hydro One's Facilities or from the facilities of any licensed distributor by any generator other than by the Generator or by a third party, the parties acting reasonably shall agree in writing as to application of said Order or decision to Section 25.2 and to any amendments thereto.
- 25.6 Sections 25.2 to 25.5 inclusive shall survive the termination of this Agreement and will be terms of any Connection Agreement or such other agreement as required by the Transmission System Code that is applicable to the owner and/or operator of the New Transmission Facilities.

#### **Delivery of Power Prior to Open Access**

- 26. The Generator shall not deliver power to Hydro One's transmission system before Section 26(1) of the *Electricity Act*, 1998 comes into force unless the Generator:
- (a) provides proof, to Hydro One's satisfaction, prior to delivering such power, that the Generator has a valid contract to sell the power to be delivered to Hydro One's transmission system to Ontario Power Generation Inc.; or
- (b) is permitted by any governmental or governmental department, commission, board, court authority or agency with jurisdiction, to deliver power to Hydro One's transmission system before Section 26(1) of the *Electricity Act, 1998* comes into force;

and if the Generator breaches this Section 26, the Generator shall remedy the default by ceasing to deliver power to Hydro One's transmission system within 48 hours of receiving written notice of the breach from Hydro One (the "Cure Period"). If the Generator fails to remedy the default within the Cure Period, Hydro One shall be entitled to disconnect the New Transmission Facilities from Hydro One's transmission system upon providing the Generator with 24 hours prior written notice.

This obligation shall survive the termination of this Agreement.

#### **Easement**

27. If specified in Schedule "D" that an easement is required, the Generator shall or the Generator shall cause the third party specified in Schedule "D" to grant an easement to Hydro One substantially in the form of the easement attached hereto as Schedule "H" for the property described as the Easement Lands in Schedule "D" by no later than the date specified as the Easement Date in Schedule "D" (hereinafter referred to as the "Easement") with good and marketable title thereto, free of all encumbrances, first in priority except as noted herein, and in registerable form, in consideration of the sum of \$2.00.

The above Easement shall be for the Easement Term specified in Schedule "D" which will commence on the Easement Date provided that in the event that Hydro One removes the asset that is the subject of the Easement during the Easement Term, Hydro One shall surrender the Easement at that time. Subject to the foregoing, the Easement shall survive the termination of this Agreement.

#### **Events of Default**

- 28. Each of the following events shall constitute an "Event of Default" under this Agreement:
- (a) failure by the Generator to pay any amount due under this Agreement within the time stipulated for payment;
- (b) breach by the Generator or Hydro One of any term, condition or covenant of this Agreement;
- (c) the making of an order or resolution for the winding up of the Generator or of its operations or the occurrence of any other dissolution or liquidation proceeding instituted by or against the Generator;
- (d) the making of an order or resolution for the winding up of Hydro One or of its operations or the occurrence of any other dissolution or liquidation proceeding instituted by or against Hydro One; and
- (e) any other Events of Default specified in Schedule "D".
- 29. In the Event of Default by the Generator hereunder (other than the Event of Default specified in Subsection 28(c) of this Agreement, for which no notice is required to be given by Hydro One), Hydro One shall give the Generator written notice of the Event of Default and allow the Generator 30 days from the date of receipt of the notice to rectify the Event of Default, at the Generator's sole expense. If such Event of Default is not cured to Hydro One's reasonable satisfaction within the 30-day period, Hydro One may, in its sole discretion, exercise the

following remedy in addition to any remedies that may be available to Hydro One under the terms of this Agreement, at common law or in equity: deem this Agreement to be repudiated and, after giving the Generator at least 10 days' prior written notice thereof, recover, as liquidated damages and not as a penalty, the amounts payable by the Generator pursuant to Sections 18, 21, 22.1 and 22.2 hereof.

- 30. In the Event of Default by Hydro One hereunder (other than the Event of Default specified in Subsection 28(d) of this Agreement, for which no notice is required to be given by the Generator), the Generator shall give Hydro One written notice of the Event of Default and shall allow Hydro One 30 days from the date of receipt of the notice to rectify the Event of Default at Hydro One's sole expense. If such Event of Default is not cured to the Generator's reasonable satisfaction within the 30-day period, the Generator may pursue any remedies available to it at law or in equity.
- All rights and remedies of Hydro One and the Generator provided herein are not intended to be exclusive but rather are cumulative and are in addition to any other right or remedy otherwise available to Hydro One and the Generator respectively at law or in equity, and any one or more of Hydro One's and the Generator's rights and remedies may from time to time be exercised independently or in combination and without prejudice to any other right or remedy Hydro One or the Generator may have or may have exercised. The parties further agree that where any of the remedies provided for and elected by the non-defaulting party are found to be unenforceable, the non-defaulting party shall not be precluded from exercising any other right or remedy available to it at law or in

In addition to any other remedy provided hereunder, all overdue amounts that are outstanding for longer than 60 days shall bear interest at 18% per annum.

#### <u>Connection Agreement and the Transmission</u> System Code

32. In the event that the Connection Agreement referred to in Subsection (a) of Part 1 of Schedule "C" hereof is entered into prior to the effective date of the Transmission System Code, the Parties shall make such amendments to the Connection Agreement as may be necessary to ensure compliance with the mandatory requirements of the Transmission System Code in effect on the date that Section 26(1) of the *Electricity Act*, 1998 (being Schedule "A" of the *Electricity Competition Act*, S.O. 1998, c. 15) is proclaimed.

#### **Liability and Force Majeure**

33. Other than for sums payable under this Agreement, the Generator shall only be liable to Hydro One and Hydro One shall only be liable to the Generator for any damages that arise directly out of the willful misconduct or negligence in meeting their respective obligations under this Agreement.

Despite the foregoing, neither Party shall be liable under any circumstances whatsoever for any loss of profits or revenues, business interruption losses, loss of contract or loss of goodwill, or for any indirect, consequential or incidental damages, including but not limited to punitive or exemplary damages, whether any of the said liability, loss or damages arise in statute, contract, tort or otherwise.

In any event, the total liability of Hydro One to the Generator for any and all claims for damages under this Agreement whether it arises by statute, contract, tort or otherwise, will not exceed the Actual Cost of the Hydro One Connection Work.

This provision shall survive the termination of this Agreement.

34. Neither party shall be considered to be in default in the performance of its obligations under this Agreement, except obligations to make payments with respect to amounts already accrued, to the extent that performance of any such obligation is prevented or delayed by any cause, existing or future, which is beyond the reasonable control of, and not a result of the fault or negligence of, the affected party ("Force Majeure") and includes, but is not limited to, strikes, lockouts and any other labour disturbances and manufacturer's delays for equipment or materials required for the Hydro One Connection Work.

If a party is prevented or delayed in the performance of any such obligation by Force Majeure, such party shall immediately provide notice to the other party of the circumstances preventing or delaying performance and the expected duration thereof. Such notice shall be confirmed in writing as soon as reasonably possible. The party so affected by the Force Majeure shall endeavour to remove the obstacles which prevent performance and shall resume performance of its obligations as soon as reasonably practicable, except that there shall be no obligation on the party so affected by the Force Majeure where the event of Force Majeure is a strike, lockout or other labour disturbance.

#### **Mutual Obligations:**

- 35. Within 30 days of the date hereof or another mutually agreed date, the Parties agree to establish a project management and communications protocol (the "Protocol") to be used by the Parties during the Term of this Agreement. The Protocol will address such matters as:
- (a) cancellation of outages;
- (b) proposed changes to the scope of work;
- (c) the contacts for day to day issues;
- (d) the manner in which information requests are to be made; and
- (e) how any other issues that may arise with respect to the Connection, including, but not limited to, the Hydro One Connection Work and the Generator Connection Work, are to be communicated to the other party.
- 36. Each party agrees that it shall at all times act reasonably in the performance of its obligations and the exercise of its rights under this Agreement.

#### General

- 37. This Agreement constitutes the entire agreement between the parties with respect to the subject matter of this Agreement and supersedes all prior oral or written representations and agreements concerning the subject matter of this Agreement. Schedules "A", "B", "C" "D", "E", "F", "G" and "H" attached hereto and any Exhibits referenced in those aforementioned Schedules are to be read with and form part of this Agreement.
- The failure of any party hereto to enforce at any time any of the provisions of this Agreement or to exercise any right or option which is herein provided shall in no way be construed to be a waiver of such provision or any other provision nor in any way affect the validity of this Agreement or any part hereof or the right of any party to enforce thereafter each and every provision and to exercise any right or option. The waiver of any breach of this Agreement shall not be held to be a waiver of any other or subsequent breach. Nothing shall be construed or have the effect of a waiver except an instrument in writing signed by a duly authorized officer of the party against whom such waiver is sought to be enforced which expressly waives a right or rights or an option or options under this Agreement.
- 39. Any written notice required by this Agreement shall be deemed properly given only if either mailed or delivered to the Secretary, Hydro One Hydro One Inc., 483 Bay Street, South Tower, 10<sup>th</sup> Floor, Toronto, Ontario M5G 2P5, fax no: (416) 345-6240

on behalf of Hydro One, and to the person at the address specified in Schedule "D" on behalf of the Generator.

A faxed notice will be deemed to be received on the date of the fax if received before 4 p.m. or on the next business day if received after 4 p.m. Notices sent by courier or registered mail shall be deemed to have been received on the date indicated on the delivery receipt. The designation of the person to be so notified or the address of such person may be changed at any time by either party by written notice.

- 40. Each party acknowledges and agrees that it has participated in the drafting of this Agreement and that no portion of this Agreement shall be interpreted less favourably to either party because that party or its counsel was primarily responsible for the drafting of that portion.
- 41. No amendment, modification or supplement to this Agreement shall be valid or binding unless set out in writing and executed by the parties with the same degree of formality as the execution of this Agreement.
- 42. Confidential Information shall at all times be treated as confidential, and shall be prepared, given, and used in good faith. The Parties shall use the Confidential Information only for the requirements of the work being performed including, but not limited to, planning or operating the Parties' Connection Facilities or Transmission Systems, and not for any other purpose, and shall not disclose it to any third party, directly or indirectly, without the prior written consent of the Party that provided the Confidential Information, and in such events the third party shall agree to use the Confidential Information solely for the requirements of the work as specified. Confidential Information shall not be used for any commercial purpose of any kind whatsoever other than contemplated herein.
- 15.2 "Confidential Information" does not include:
- (a) information that is in the public domain, provided that specific items of information shall not be considered to be in the public domain merely because more general information is in the public domain and provided that the information is not in the public domain as a result of a breach of confidence by the Party seeking to disclose the information or a person to whom it has disclosed the information;
- (b) information that is, at the time of the disclosure, in the possession of the recipient, provided that it was lawfully obtained either from the other Party or from sources, who did not acquire it directly

- or indirectly from the other Party under an obligation of confidence; and
- (c) information that must be disclosed in compliance with a judicial or governmental order or other legal process.
- 15.3 Each Party shall keep Confidential Information confidential except:
- (a) as may be necessary in an Emergency;
- (b) to the extent required by applicable law;
- (c) if required in connection with legal proceedings, arbitration or any expert determination relating to the subject matter of this Agreement, or for the purpose of advising a Party in relation thereto;
- (d) to the extent required by the Party's licence; or
- (e) to the extent required by the Market Rules or as may be required to enable a Party to fulfill its obligation to any reliability organization.
- 15.4 The Parties shall make any information required to be provided or communicated under the terms of this Agreement available to each other in a timely and co-operative manner.
- 15.5 The confidentiality provisions of this Article XV will continue and survive for a period of 6 years after the termination of this Agreement.

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- (a) Except as provided in this Agreement, each party acknowledges and agrees that it cannot disclose any Confidential Information of the other party (the "Disclosing Party") to anyone, including the OEB, without the consent of the Disclosing Party which shall not be unreasonably withheld.
- (b) Notwithstanding the foregoing, each Party acknowledges and agrees that it can disclose the following confidential information to the OEB as part of and for the purpose of making an application to the OEB, participating in any OEB hearings or making an appeal to a Court of competent jurisdiction regarding any decision of the OEB:
  - 1. any information with respect to the costs and the allocation of costs identified in Section 20.2 hereof; and
  - 2. any information with respect to the construction, operation and use of Hydro One's Facilities and the New Transmission Facilities that relates to Sections 25.2, 25.3, 25.4 and 25.5 of this Agreement;

provided that the Generator:

- (i) requests that the OEB hold the Confidential Information in confidence in accordance with Section 3 of the OEB's "Guidelines for the Treatment of Filings made in Confidence Phase 1" (effective March 19, 2001) (the "Guidelines"). Notwithstanding the generality of the foregoing, it is understood that:
- (aa) the Generator will provide Hydro One with 10 business days prior written notice of its intention to file an application to the OEB which will include Confidential Information. The aforementioned notice will list the Confidential Information being filed by The Generator and Hydro One shall provide the Generator with:
- a letter signed by a duly authorized signing officer of Hydro One providing a full explanation of the need for considering the Confidential Information confidential; and
- 2) the documentation required to be filed by the Generator under c) and d) of Section 3.2.1 of the Guidelines, where possible, with respect to the Confidential Information. Where it is not possible for Hydro One to provide an abridged version of one or more of the documents comprising the Confidential Information, Hydro One will provide an explanation in the letter described in Subsection 42(c)(i)(aa)1) as to why it is not possible to provide the abridged version(s).
- (bb) the Generator will file any documentation provided by Hydro One under Subsection 42(c)(aa) with its application provided that Hydro One provides same to the Generator by no later than 10 business days following Hydro One's receipt of the notice of intention to file an application to the OEB.
- (cc) the Generator's cover letter to the Board referenced in Subsection 3.2.1(b) of the Guidelines will include the following wording:
  - (insert name of the Generator) and Hydro One Networks Inc. are parties to an agreement that contains obligations of confidence with respect to information that Hydro One Networks Inc. considers confidential. The documentation that (insert name of the Generator) is requesting that the Ontario Energy Board hold in confidence is information that is protected by the aforementioned agreement. As such, (insert name of the Generator) is contractually

- bound to seek such protection. Attached to this letter is a letter signed by a duly authorized signing officer of Hydro One Networks Inc. providing a full explanation of the need for considering the documentation confidential.
- (dd) if a panel hears or chooses to have a Panel of Board Members (a "Panel") make a determination on the issue of confidentiality, the Generator shall request that the Board permit Hydro One to be a party so as to be able to make submissions with respect to the Confidential Information.
- (ee) the Generator shall not make submissions to the OEB or any panel of the OEB requesting or supporting any request that the Confidential Information be made public.
- (ff) if a Panel determines that any of the documents comprising Confidential Information should be made public, Hydro One will have the right to appeal, or to request a rehearing or a judicial review of the determination in accordance with Section 3.7.1 of the Guidelines.

This Section 42 shall survive the termination of this Agreement.

- 43. Unless otherwise specified, references in this Agreement to Sections or Schedules are to sections, articles and Schedules of this Agreement. Any reference in this Agreement to any statute, regulation, any OEB approved documents (including the OEB's "Guidelines for the Treatment of Filings made in Confidence" referenced in Section 42 above) or any section thereof will, unless otherwise expressly stated, be deemed to be a reference to such statute, regulation, document or section as amended, restated or re-enacted from time to time. The insertion of headings is for convenience only, and shall not affect the interpretation of this Agreement. Unless the context requires otherwise, words importing the singular include the plural and vice versa.
- 45. This Agreement shall be construed and enforced in accordance with, and the rights of the parties shall be governed by, the laws of the Province of Ontario and the laws of Canada applicable therein, and the courts of Ontario shall have exclusive jurisdiction to determine all disputes arising out of this Agreement.
- 46. This Agreement may be executed in counterparts, including facsimile counterparts, each of

which shall be deemed an original, but all of which shall together constitute one and the same agreement.

47. The obligation to pay any amount due and payable hereunder, including, but not limited to, any amounts due under Sections 18, 21, 22.1, 22.2 and 29 hereof shall survive the termination of this Agreement.

**IN WITNESS WHEREOF**, the parties hereto have caused this Agreement to be executed by the signatures of their proper officers, as of the day and year first written above.

# HYDRO ONE NETWORKS INC.

HYDRO ONE NEI WORKS INC.				
	authority to bind	the Corpo	ration	•
Name: Title:				
INSERT	CORPORATE	NAME	OF	THE
<b>GENERA</b>	TOR			
Name:				
Title:				
Name:				
Title:				
I/We have	the authority to b	oind the C	orpora	tion.

#### Schedule "A": Definitions

Throughout this Agreement, unless there is something in the subject matter or context inconsistent therewith, the following words shall have the following meanings:

- "Actual Cost" means Hydro One's charge for equipment, labour and materials at Hydro One's standard rates plus Hydro One's standard overheads and interest thereon.
- "Applicable Laws", means any and all applicable laws, including environmental laws, statutes, codes, licensing requirements, treaties, directives, rules, regulations, protocols, policies, by-laws, orders, injunctions, rulings, awards, judgments or decrees or any requirement or decision or agreement with or by any governmental or governmental department, commission, board, court authority or agency.
- "Approval Date" means the date specified in Schedule "D".
- **"Business Day"** means a day other than Saturday, Sunday, statutory holiday in Ontario or any other day on which the principal chartered banks located in the City of Toronto, are not open for business during normal banking hours.

#### "Confidential Information" means:

- (i) the terms of this Agreement and the operations and dealings under this Agreement;
- (ii) all information disclosed by a Party to the other Party under this Agreement or in negotiating this Agreement which by its nature is confidential to the Party disclosing the information; and
- (iii) all interpretative reports or other data generated by a Party that are based in whole or in part on information that is made Confidential Information by clauses (i) and (ii).
- **"Connection"** means the connection of the New Transmission Facilities to Hydro One's transmission system at the Connection Point.
- **"Connection Agreement"** has the meaning set forth in the Transmission System Code.
- **"Connection Materials"** means the materials ordered by Hydro One for the purpose of the Connection.
- **"Connection Point"** means the point where the Generator's Facilities are connected to Hydro One's transmission system.

- "Distribute" has the meaning ascribed thereto in the *Electricity Act*, 1998.
- **"Emergency"** has the meaning set forth in the Transmission System Code.
- **"Execution Date"** means for the purpose of Subsection 6(a) and Section 18 of this Agreement, the date specified in Schedule "D".
- "Generator Connection Work" means the work to be performed by the Generator, at its sole expense, which is described in Schedule "C" attached to this Agreement.
- **"Generator's Facilities"** means the New Transmission Facilities and the New Facility.
- "Good Utility Practice" has the meaning set forth in the Transmission System Code.
- "Hydro One Connection Work" means the work to be performed by Hydro One, which is described in Schedule "B", attached to this Agreement and which is comprised of System Upgrades Category A and System Upgrades Category B.
- **"Hydro One's Facilities"** means collectively the existing Hydro One's Facilities LV and the Hydro One's Facilities HV.
- "Hydro One's Facilities HV" means the facilities owned by Hydro One specified in Schedule "D" that convey electricity at voltages of more than 50 kilovolts.
- "Hydro One's Facilities LV" means the facilities owned by Hydro One specified in Schedule "D" that convey electricity at voltages of 50 kilovolts or less.
- **"IMO Rules"** means the Independent Market Operator (IMO) administered Market Rules, including, but not limited to Chapter 6 thereof.
- "In Service Date" means the date that the IMO has approved the final Connection.
- "New Facility" means the facilities owned by the Generator specified in Schedule "D".
- "New Transmission Facilities" means the transmission facilities specified in Schedule "D".
- **"Premium Costs"** means those costs incurred by Hydro One in order to maintain or advance the Ready for Service Date, including, but not limited to, additional amounts expended for materials or

services due to short time-frame for delivery; and the difference between having Hydro One's employees, agents and contractors perform work on overtime as opposed to during normal business hours.

- "Ready for Service Date" means the date upon which the Hydro One Connection Work is fully and completely constructed, installed, commissioned and energised to the Generator's first high voltage isolation points.
- **"System Upgrades Category A"** means upgrades that are triggered by and are for the sole benefit of the Generator in respect of the Connection.
- "System Upgrades Category B" means upgrades required for the Connection.
- "Third Party Facilities" means any and all equipment, elements, and facilities of any kind whatsoever owned by someone other than the parties to this connection agreement and that are connected to Hydro One's transmission system.
- "Transmit" has the meaning ascribed thereto in the *Electricity Act*, 1998.
- "Transmission Rate" has the meaning set forth in the form of Connection Agreement attached to the Transmission System Code.
- "Transmission System Code" means the code of standards and requirements issued by the OEB on July 14, 2000, as it may be amended from time to time, setting forth mandatory terms, conditions and obligations regarding connections between the facilities of generators and the facilities of transmitters in accordance with the requirements of the *Ontario Energy Board Act*, 1998, including mandatory required terms and conditions for Connection Agreements.

## Schedule "B": Hydro One Connection Work

Hydro One will provide project management, engineering, equipment and materials, construction, commissioning and energization for all work pertaining to the Connection.

#### Schedule "C": Generator Connection Work

#### Part 1: General Project Requirements:

The Generator will:

- (a) enter into a Connection Agreement with Hydro One at least 14 days prior to the first Connection;
- (b) ensure that project data is made available or provided to Hydro One as required by Hydro One:
- (c) ensure that the work performed by the Generator and others required for successful installation, testing and commissioning of protective and metering equipment is completed as required to enable Hydro One witnessing and testing to confirm satisfactory performance of such systems;
- (d) install metering facilities in accordance with the IMO Rules;
- (e) provide a dedicated communication circuit for remote access to the metering equipment in accordance with the IMO Rules; and
- (f) provide a dedicated telephone for direct communication between Hydro One TOMC operator and the Generator Control Room Operator.
- (g) any other requirements specific to the Connection

#### Part 2: Line tap

By (insert date), the Generator will:

#### Part 3: Teleprotection at the New Facility

By (insert date), the Generator will provide teleprotection for (insert name of Hydro One Facilities) based on the following design considerations:

- ABB NSD70 equipment or equivalent.
- Two tones per transmission line.
- One shelf per transmission line.
- Each shelf contains two transmitters and two receivers and dual power supplies.
- Dual channel transfer trip.
- Leased circuits.

#### Part 4: SCADA RTU

By (insert date), the Generator will:

- Provide SCADA RTU functionality to meet Hydro One configuration and communications protocol and to comply with IMO technical and performance requirements.
- Provide a port and a modem to transmit to Hydro One the required telemetry quantities. The modem and protocol details will be to Hydro One's requirements.

#### **Part 5: Telecommunications**

By (insert date), the Generator will:

- Provide communications cable entrance facility and cable protection at the New Facility.
- Be responsible for all monthly leasing costs and the yearly leasing charge (per pair) for Hydro One's neutralizing transformer capacity.
- Provide circuit routing.

#### **Part 6: Revenue Metering**

By (insert date), the Generator will:

Provide revenue metering system to IMO requirements.

#### Part 7: Documentation

By (insert date), the Generator shall have provided Hydro One with the following Connection Interface Documents for review by Hydro One in the Implementation Connection phase:

#### Group A:

- IMO application-for information only.
- Single-line drawings showing ratings of all electrical equipment, such as disconnect switches, bushing potential devises, CVTs, power transformers, grounding transformers, grounding resistors, breakers, etc.
- GPR study and associated station ground design.
- Entrance structure (electrical & structural)
- General arrangement of the New Facility

#### Group B:

- DC station service 1 line showing ratings of all electrical equipment such as batteries, chargers, etc.
- Information on switchgear fault ratings
- HV surge arrestor specification

- RTU configuration/communications protocol
- Teleprotection AC and DC EWD including information on proposed vendor equipment
- Line protection AC and DC EWD
- Transformer protection, AC and DC EWD
- Disconnect switch or HV breaker AC and DC EWD
- LV breaker ( transformer & bus tie breakers) AC and DC EWD
- Breaker failure (transformer & bus tie breakers)
   AC and DC EWD
- HV equipment operating and protection philosophy

#### Group C:

- Power transformer and generator nameplate ratings
- Relay settings including relay logic diagrams, coordination studies and fault calculations.
- Commissioning procedure

#### Group D:

- Preliminary and final generator data, including excitation system performance, automatic voltage regulator (AVR), power factor regulator, power system stabilizer, static exciter and speed governor to ensure compliance with all applicable reliability standards required under the Market Rules.
- Generator absorption / deliverance of VARs from/to Hydro One system to maintain the Generator terminal voltage to a given set point.

#### Schedule "D":

# PART 1: Actual Cost of Hydro One Connection

Estimate: The estimate of the Actual Cost of the Hydro One Connection Work (excluding GST) is summarized as follows:

#### Manner of Payment

Hydro One acknowledges receipt of an initial payment of \$XXXX.00 from the Generator (the "deposit"). In addition to the deposit, the Generator shall make the following payments to Hydro One towards the Actual Cost of the Hydro One Connection Work:

As noted above, GST is not included in the estimate of the Actual Cost of the Hydro One Connection Work and will be collected when Hydro One renders the invoice or credit memorandum in accordance with Section 18 hereof.

#### PART 2: USE OF EXISTING NETWORKS' FACILITIES 1

#### Hydro One's Facilities - HV:

Following the Connection, the following are Hydro One's Facilities for the purposes of this Agreement:

#### Hydro One's Facilities - LV:

Full Capacity:

1 un Cupacit	<i>y</i> -		
Circuit	Conductor	Summer	Winter
Designatio	Size	Rating	Rating
n		(Amps)	(Amps)

The lines are continuously rated at 93°C operating temperature for the following system conditions: sheltered, 4 km/hr wind and 30°C summer and 0°C winter ambient temperatures respectively.

#### PART 3: MISCELLANEOUS

**Connection Point:** 

**New Facility:** 

<sup>1</sup> Cross-reference Sections 25.1 to 25.6.

e.g. XX MVA generating facility located at (insert address), Ontario, being comprised of (insert number of units).

#### **New Transmission Facilities:**

e.g. a X km (insert rating and description of transmission line) commencing at ... and terminating

**Approval Date<sup>2</sup>:** Ready for Service Date<sup>3</sup>: **Execution Date <sup>4</sup>:** 

#### **Documentation Required**<sup>5</sup>:

Documentation describing the as-built electrical characteristics of the Generator's Facilities. This documentation shall include, but is not limited to, a detailed single line drawing showing electrical parameters and characteristics of the Generator's Facilities and step up transformer(s), AC and DC protection elementary diagrams, and relay types and setting sheets.

Security Requirements:<sup>6</sup>

**Security Date:** 

Easement Required:<sup>7</sup> Yes Name of Third Party for Easement:8

Easement Date:9

**Easement Lands:** 

**Easement Term:** 

Event of Default: 10 Not Applicable

Generator Notice Info: 11

Attention: Fax No.:

<sup>&</sup>lt;sup>2</sup> Cross-reference Subsection 10(h)

Cross-reference Section 10.

Cross-reference Subsection 10(a).

<sup>&</sup>lt;sup>5</sup> Cross-reference Subsection 17(e)

<sup>&</sup>lt;sup>6</sup> Cross-reference Section 24.

<sup>&</sup>lt;sup>7</sup> Cross-reference Section 27.

Cross-reference Section 27.

<sup>&</sup>lt;sup>9</sup> Cross-reference Section 27. <sup>10</sup> Cross-reference Section 28.

<sup>&</sup>lt;sup>11</sup> Cross-reference Section 39.

## Schedule "E": Statement of Actual Costs

	D : . 1		
	Project 1		
Project No			
I/S Date			
Project Title			
		T	T
Project Description			
Material			
Construction			
Sub-contract			
Engineering			
Commission			
Outage Mgmt			
NS Cost			
HON Overhead			
AFUDC			
NM Cost			
Total K\$			

#### Schedule "F": Hydro One's Assets

For the purposes of this Schedule, the following terms shall have the following meanings:

"Hydro One's Property(ies)" means any lands owned by Hydro One in fee simple or where Hydro One now or hereafter has obtained easement rights.

"Generator's Property(ies)" means any lands owned by the Generator in fee simple.

- A. Hydro One will own all equipment and facilities installed by Hydro One as part of the Hydro One Connection Work in, under, on, over, along, upon, through and crossing Hydro One's Property(ies).
- B. Hydro One will own the following equipment installed by the Generator in, under, on, over, along, upon, through and crossing Hydro One's Property(ies):
  - 1) Nil
- C. Hydro One will own the following equipment installed by Hydro One as part of the Hydro One Connection Work in, under, on, over, along, upon, through and crossing the Generator's Property:
  - 1) Nil
- D. Hydro One will own the following equipment that may be installed by the Generator in, under, on, over, along, upon, through and crossing Hydro One 's Property(ies):
- 1) Nil

#### Schedule "G": Access Provisions

For the purpose of this Schedule "G", the following terms shall have the following meaning:

- "Owner" means the owner of the facilities or the site;
- "Company" means the entity requiring access to the Owner's facilities or site; and
- "Owner's facilities" means the Generator's Facilities in the case of the Generator and Hydro One's Facilities in the case of Hydro One.
- 1. When the Company's staff, its contractors, or agents work at Owner' facilities or site, Owner's safety and environmental requirements shall be observed by such staff, contractors and agents. As a minimum, all Applicable Laws shall govern such work.
- 2. The Company's staff, its contractors, or agents working at Owner's facilities or site shall be qualified to work around electrical hazards.
- 3. The Company's staff, its contractors, or agents shall be entitled to access Owner's facilities or site, and Owner will grant such access, to carry out work at all reasonable times on reasonable prior notice to Owner, subject to Owner's policies and procedures.
- 4. If the Company wishes to have access to Owner's facilities, the Company shall notify Owner of the particular work to be undertaken and of the date and time when it proposes to access the relevant facilities, subject to Owner's policies and procedures. Owner shall not unreasonably withhold access to its facilities.
- 5. At any time when the Company or its representatives are on or in Owner's site, the Company and its representatives shall:
- (a) use all reasonable precautions not to damage or interfere with Owner's site and facilities;
- (b) observe Owner's requirements for reporting occupational health and safety, electrical safety, environmental requirements, technical requirements, and matters of industrial relations; and
- (c) neither ask questions, nor give any direction, instruction or advice to any person involved in operating or maintaining Owner's site or facilities, other than the person whom Owner has designated for that purpose.

- 6. If the Company or its representatives cause any loss or damage when given access to Owner's, the Company or its representative shall promptly advise Owner's controlling authority of the loss or damage.
- 7. The Company shall not, and shall ensure that its representatives do not, intentionally interfere with any of Owner's facilities in or on its sites. The Company shall use reasonable efforts not to cause loss or damage to Owner's facilities. If the Company interferes with any of Owner's facilities, it shall indemnify Owner for reasonable costs and expenses incurred from any resulting loss or damage.
- 8. In an emergency, Owner may, as far as reasonably necessary in the circumstances, have access to and interfere with the Company's facilities. Owner shall use reasonable efforts not to cause loss or damage to the Company's facilities. If Owner interferes with any of the Company's facilities, it shall indemnify the Company for reasonable costs and expenses incurred from any resulting loss or damage.
- 9. The Company shall pay Owner its costs related to the Company's staff, contractors or agents accessing Owner's facilities or sites, including, but not limited to, the cost of having a Owner representative accompany the Company's staff, contractors, or agents accessing Owner's facilities or sites in accordance with the invoices rendered by Owner.
- 10. The Company shall indemnify and save harmless Owner from and against all liabilities, damages, suits, claims, demands, costs, actions, proceedings, causes of action, losses, expenses and injury (including death) of any kind or nature whatsoever (the "causes of action") resulting from, caused by or in any manner connected with installed Company equipment on Owner's facilities or sites or Company's staff, its contractors, or agents accessing Owner's facilities or sites including, but not limited to:
- (a) causes of actions arising out of health and safety violations or environmental spills;
- (b) costs incurred by Owner having to pay other Generators due to interruptions caused by the Company;
- (c) damage to Owner equipment;
- (d) incremental costs and expenses incurred by Owner related to the Company's equipment installations, removals, relocations, upgrades, or any other Company work.

except to the extent that the "causes of action" are caused by the negligence or willful misconduct of Owner.

#### **SCHEDULE "H": Form of Easement**

#### INTEREST / ESTATE TRANSFERRED

The Transferor is the owner in fee simple and in possession of
(the "Lands").

The Transferee has erected, or is about to erect, certain Works (as more particularly described in paragraph 1(a) hereof) in, through, under, over, across, along and upon the Lands.

- The Transferor hereby grants and conveys to Hydro One Networks Inc, its successors and assigns the rights and easement, free from all encumbrances and restrictions, the following unobstructed and exclusive rights, easements, rights-of-way, covenants, agreements and privileges in perpetuity (the "**Rights**") in, through, under, over, across, along and upon that portion of the Lands of the Transferor described herein and shown highlighted on Schedule "A" hereto annexed (the "**Strip**") for the following purposes:
  - (a) To enter and lay down, install, construct, erect, maintain, open, inspect, add to, enlarge, alter, repair and keep in good condition, move, remove, replace, reinstall, reconstruct, relocate, supplement and operate and maintain at all times in, through, under, over, across, along and upon the Strip an electrical transmission system and telecommunications system consisting in both instances of a pole structures, steel towers, anchors, guys and braces and all such aboveground or underground lines, wires, cables, telecommunications cables, grounding electrodes, conductors, apparatus, works, accessories, associated material and equipment, and appurtenances pertaining to or required by either such system (all or any of which are herein individually or collectively called the "Works") as in the opinion of the Transferee are necessary or convenient thereto for use as required by Transferee in its undertaking from time to time, or a related business venture.
  - (b) To enter on and selectively cut or prune, and to clear and keep clear, and remove all trees (subject to compensation to Owners for merchantable wood values), branches, bush and shrubs and other obstructions and materials in, over or upon the Strip, and without limitation, to cut and remove all leaning or decayed trees located on the Lands whose proximity to the Works renders them liable to fall and come in contact with the Works or which may in any way interfere with the safe, efficient or serviceable operation of the Works or this easement by the Transferee.
  - (c) To conduct all engineering, legal surveys, and make soil tests, soil compaction and environmental studies and audits in, under, on and over the Strip as the Transferee in its discretion considers requisite.
  - (d) To erect, install, construct, maintain, repair and keep in good condition, move, remove, replace and use bridges and such gates in all fences which are now or may hereafter be on the Strip as the Transferee may from time to time consider necessary.
  - (e) Except for fences and permitted paragraph 2(a) installations, to clear the Strip and keep it clear of all buildings, structures, erections, installations, or other obstructions of any nature (hereinafter collectively called the "obstruction") whether above or below ground, including removal of any materials and equipment or plants and natural growth, which in the opinion of the Transferee, endanger its Works or any person or property or which may be likely to become a hazard to any Works of the Transferee or to any persons or property or which do or may in any way interfere with the safe, efficient or serviceable operation of the Works or this easement by the Transferee.
  - (e) To enter on and exit by the Transferor's access routes and to pass and repass at all times in, over, along, upon and across the Strip and so much of the Lands as is reasonably required, for Transferee, its respective officers, employees, agents, servants, contractors, subcontractors, workmen and permittees with or without all plant machinery, material, supplies, vehicles and equipment for all purposes necessary or convenient to the exercise and enjoyment of this easement and
  - (f) To remove, relocate and reconstruct the line on or under the Strip.

#### 2. The Transferor agrees that:

- It will not interfere with any Works established on or in the Strip and shall not, without the Transferee's consent in writing, erect or cause to be erected or permit in, under or upon the Strip any obstruction or plant or permit any trees, bush, shrubs, plants or natural growth which does or may interfere with the Rights granted herein. The Transferor agrees it shall not, without the Transferee's consent in writing, change or permit the existing configuration, grade or elevation of the Strip to be changed and the Transferor further agrees that no excavation or opening or work which may disturb or interfere with the existing surface of the Strip shall be done or made unless consent therefore in writing has been obtained from Transferee, provided however, that the Transferor shall not be required to obtain such permission in case of emergency. Notwithstanding the foregoing, in cases where in the reasonable discretion of the Transferee, there is no danger or likelihood of danger to the Works of the Transferee or to any persons or property and the safe or serviceable operation of this easement by the Transferee is not interfered with, the Transferor may at its expense and with the prior written approval of the Transferee, construct and maintain roads, lanes, walks, drains, sewers, water pipes, oil and gas pipelines, fences (not to exceed 2 metres in height) and service cables on or under the Strip (the "Installation") or any portion thereof; provided that prior to commencing such Installation, the Transferor shall give to the Transferee thirty (30) days notice in writing thereof to enable the Transferee to have a representative present to inspect the proposed Installation during the performance of such work, and provided further that Transferor comply with all instructions given by such representative and that all such work shall be done to the reasonable satisfaction of such representative. In the event of any unauthorised interference aforesaid or contravention of this paragraph, or if any authorised interference, obstruction or Installation is not maintained in accordance with the Transferee's instructions or in the Transferee's reasonable opinion, may subsequently interfere with the Rights granted herein, the Transferee may at the Transferor's expense, forthwith remove, relocate, clear or correct the offending interference, obstruction, Installation or contravention complained of from the Strip, without being liable for any damages caused thereby.
- (b) notwithstanding any rule of law or equity, the Works installed by the Transferee shall at all times remain the property of the Transferee, notwithstanding that such Works are or may become annexed or affixed to the Strip and shall at anytime and from time to time be removable in whole or in part by Transferee.
- (c) no other easement or permission will be transferred or granted and no encumbrances will be created over or in respect to the Strip, prior to the registration of a Transfer of this grant of Rights.
- (d) the Transferor will execute such further assurances of the Rights in respect of this grant of easement as may be requisite.
- (e) the Rights hereby granted:
  - (i) shall be of the same force and effect to all intents and purposes as a covenant running with the Strip.
  - (ii) is declared hereby to be appurtenant to and for the benefit of the Works and undertaking of the Transferee described in paragraph 1(a).
- 3. The Transferee covenants and agrees to obtain at its sole cost and expense all necessary postponements and subordinations (in registrable form) from all current and future prior encumbrancers, postponing their respective rights, title and interests to the Transfer of Easement herein so as to place such Rights and easement in first priority on title to the Lands.
- 4. There are no representations, covenants, agreements, warranties and conditions in any way relating to the subject matter of this grant of Rights whether expressed or implied, collateral or otherwise except those set forth herein.
- 5. No waiver of a breach or any of the covenants of this grant of Rights shall be construed to be a waiver of any succeeding breach of the same or any other covenant.
- 6. The burden and benefit of this transfer of Rights shall run with the Strip and the Works and undertaking of the Transferee and shall extend to, be binding upon and enure to the benefit of the parties hereto and their respective heirs, executors, administrators, successors and assigns.

**CHARGEES** 

THE CHARGEE of land described in a Char	ge/Mortgage of Land dated	
Between	and	
and registered as Instrument Number	on	does
hereby consent to this Easement and releases	and discharges the rights and easemen	nt herein from the said
Charge/Mortgage of Land.		
Name	Signature(s)	Date of Signatures Y M D
	Per:	
	I/We have authority to hind	the Corporation

## **CCRA** Template

For

# Connection of a Load Customer's New Facility to Hydro One's Transmission System

(Note: The attached template is subject to future changes)

#### Connection & Cost Recovery Agreement

#### **Project Title**

(Insert Customer's proper corporate name) (the "Customer") has requested and Hydro One Networks Inc. ("Networks") has agreed to (*broad project overview*) (the "Project") on the terms and conditions set forth in this Agreement (the "Agreement") dated (insert date) and the attached Standard Terms and Conditions (reference #?).

#### **Project Summary**

I have the authority to bind the Corporation.

Ove	rview and purpose of the project
•	(eg 2 new breaker positions atTS to supply new load growth)
<u>In-S</u>	ervice date
TC*	
Fina	ancial Summary (Repayment schedule and Capital Contribution)
<u>Terr</u>	<u>n:</u> ("x") years
Spec	<u>cial Circumstances</u>
	rnal & external approvals ordering long lead material, concurrent processes)
The	Project schedule is subject to:
	the Customer executing and returning this Agreement to Networks by no later than the Execution Date specified in Schedule "B"; and all necessary approvals being obtained as outlined under Special Circumstances.
Agre this	Agreement constitutes the entire agreement between the parties with respect to the subject matter of this element and supersedes all prior oral or written representations and agreements concerning the subject matter of Agreement. Schedules "A" and "B" and the Standard Terms and Conditions (reference version #) attached to are to be read with and form part of this Agreement.
	<b>VITNESS WHEREOF</b> , the parties hereto have caused this Agreement to be executed by the signatures of their er officers, as of the day and year first written above.
<u>HYI</u>	DRO ONE NETWORKS INC.
Dire	nony Horton ctor – Networks Customer Relations
1 na	ve the authority to bind the Corporation.
Cus	tomer Name
Cust Title	omer Signing Officer

#### Schedule "A"

### **Networks Connection Work**

#### **Project Scope (Detail):**

#### Non-Poolable Work

#### Networks will:

- Install
- Install
- Perform
- Provide

#### **Transformation Connection Pool Work and/or Line Connection Pool Work**

#### **Networks will:**

- Install
- Install
- Perform
- Provide

#### **Customer Connection Work**

#### The Customer will:

- Install
- Provide
- Perform

#### **Miscellaneous**

#### **Documentation Required**

• Identify all submitted documents with revision numbers and/or dates in a transmittal.

New or Modified Facility: (description)

**Connection Point: :** (description)

**Ready for Service Date:** (specify date)

Execution Date: (specify date)

Security Requirements: (specify)

Approval Date: (specify date)

**Easement Required**: (yes/no)

Name of Third Party for Easement:

**Easement Date:** (specify date)

Easement Lands: (description)

**Revenue Metering:** 

Networks' Facilities - HV:

#### Connection & Cost Recovery Agreement

#### **Networks' Facilities – LV:**

#### Ownership:

- A. Networks will own all equipment and facilities installed by Networks as part of the Networks Connection Work in, under, on, over, along, upon, through and crossing Networks' Property(ies), as well as:
- (list or NIL)

#### **Customer Notice Information:**

Address

Attention:

Fax No.:

### Schedule "B"

Transformation Connection Pool Work Estimate:
Line Connection Pool Work Estimate:
Non-Poolable Work Estimate (recoverable):
Manner of Payment of Non-Poolable Work:
Capital Contribution:
Manner of Payment of Capital Contribution:
Available Capacity:
Base Load Trigger Point:
Guaranteed Revenue Date:

## GUARANTEED INCREMENTAL TRANSFORMATION CONNECTION REVENUE AND/OR LINE CONNECTION REVENUE $^{1}$

Period: Each twelve month		Guaranteed
period commencing on the	Incremental	Incremental
Ready for Service Date	Line Connection	Transformation
	Revenue (k\$)	Connection
		Revenue (k\$)
2002		
2003		
2004		
2005		
2006		
2007		
2008		
2009		
2010		
2011		
2012		
2013		
2014		
2015		
2016		
2017		
2018		
2019		
2020		
2021		

#### Standard Terms and Conditions for Transmission Customer Connection Projects

- 1. The Customer agrees to guarantee a minimum amount of revenue to be derived from Incremental Load in accordance with the terms and conditions of the Agreement to hold the Pool harmless as a result of the Project.
- 2. Subject to Section 23 and the termination rights herein, the Agreement shall be in full force and effect and binding on the parties as of the date of the Agreement (the "Effective Date") and shall expire on the earlier of the Guaranteed Revenue Date and the date that the debt owed by the Customer pursuant to Section 12 is reduced to zero (the "Term").
- 3. Each party represents and warrants to the other that:
- it has all the necessary corporate power, authority and capacity to enter into the Agreement and to perform its obligations hereunder; and
- (b) the execution of the Agreement and compliance with and performance of the terms, conditions, and covenants contemplated herein have been duly authorized by all necessary corporate action on its part.

Where the New or Modified Facility is owned by the Customer, the Customer represents and warrants to Hydro One Networks Inc. ("Networks") that it has obtained all necessary approvals with respect to the construction of the New or Modified Facility (including, but not limited to, where applicable, leave to construct pursuant to Section 92 of the *Ontario Energy Board Act, 1998* (being Schedule "B" of the *Energy Competition Act, S.O. 1998,c. 15*)) and in order to proceed with the Customer Connection Work.

#### Part A: Networks Connection Work

- 4. The Customer and Networks shall perform their respective obligations outlined in the Agreement in a manner consistent with Good Utility Practice and the Transmission System Code, in compliance with all Applicable Laws, including, but not limited to the requirements of the Electrical Safety Code, and using duly qualified and experienced people.
- 5. The parties acknowledge and agree that:
- (a) Networks is responsible for obtaining any and all permits, certificates, reviews and approvals required under any Applicable Laws with respect to the Networks Connection Work and those required for the construction, connection and operation of the New or Modified Facility where the New or Modified Facility is owned by Networks;
- (b) the Customer is responsible for obtaining any and all permits, certificates, reviews and approvals required under any Applicable Laws with respect to the Customer Connection Work and those required for the construction, connection and operation of the New or Modified Facility where the New or Modified Facility is owned by the Customer, including those required under the Electrical Safety Code and the Customer shall ensure that it has received all such requisite permits, certificates, reviews and approvals prior to connection;
- (c) the Customer will enter into a Connection Agreement with Networks at least 14 calendar days prior to the connection of the New or Modified Facility to Networks' transmission system;
- (d) the Customer will ensure that Project data is made available or provided to Networks as required by Networks;
- (e) the Customer will ensure that the work performed by the Customer and others required for successful installation, testing and commissioning of protective equipment is completed as

required to enable Networks witnessing and testing to confirm satisfactory performance of such systems;

- (f) the Customer will provide any hardware required to connect to Networks' transmission system;
- (g) the Customer will provide coordination on protection;
- (h) Networks' responsibilities under the Agreement with respect to the connection of the New or Modified Facility to Networks' transmission system shall be limited to the performance of the Networks Connection Work;
- (i) the Customer shall perform the Customer Connection Work at its own expense;
- (j) where the New or Modified Facility is owned by the Customer, the Customer shall provide technical specifications for the New or Modified Facility as required for Networks' reviews. Until Networks has accepted the technical specifications (including electrical drawings) for the New or Modified Facility and accepted the Customer's verification of those portions of the Customer's electrical facilities affecting Networks' transmission system, Networks shall not be bound to connect the New or Modified Facility to Networks' transmission system; and
- (k) the Networks Connection Work and Networks' rights and requirements hereunder, including, but not limited to:
- Networks' specifications of the protection equipment on the Customer's side of the Connection Point;
- (ii) Networks' acceptance of power system components on the Customer's side of the Connection Point; and
- (iii) Networks' acceptance of the technical specifications (including electrical drawings) for the New or Modified Facility where the New or Modified Facility is owned by the Customer and/or the Customer Connection Work;

are solely for the protection of Networks' transmission system and that the Customer is responsible for installing equipment and facilities such as protection and control equipment to protect its own property, including, but not limited to the New or Modified Facility where the New or Modified Facility is owned by the Customer.

- 6. Networks shall use reasonable efforts to complete the Networks Connection Work by the Ready for Service Date specified in Schedule "A" provided that:
- (a) the Customer is in compliance with its obligations under the Agreement;
- (b) any work required to be performed by third parties has been performed in a timely manner and in a manner to the satisfaction of Networks, acting reasonably;
- (c) there are no delays resulting from Networks not being able to obtain outages from the Independent Electricity Market Operator required for the Networks Connection Work;
- (d) Networks does not have to use its employees, agents and contractors performing the Networks Connection Work elsewhere on its transmission system or distribution system due to an Emergency (as that term is defined in the Transmission System Code) or an event of force majeure;
- (e) Networks is able to obtain the materials and labour required to perform the Networks Connection Work with the expenditure of Premium Costs where required;
- (f) where Networks needs to obtain leave to construct pursuant to Section 92 of the *Ontario Energy Board Act*, 1998 (being Schedule "B" of the *Energy Competition Act*, S.O. 1998, c. 15), such leave is obtained by no later than the date specified as the Approval Date in Schedule "A" of the Agreement;

- (g) the Customer executed this Agreement by no later than the date specified as the Execution Date in Schedule "A"; and
- (h) Networks obtains internal approval to commit the funds for the Project.
- 7. Upon completion of the Networks Connection Work:
- (a) Networks shall own, operate and maintain all equipment referred to in Schedule "A" of the Agreement; and
- (b) other than equipment referred to in (a) above that will be owned, operated and maintained by Networks, all other equipment provided by Networks as part of the Networks Connection Work or provided by the Customer as part of the Customer Connection Work will be owned, operated and maintained by the Customer.

#### The Customer acknowledges that:

- (i) ownership and title to the equipment referred to in (a) above shall throughout the Term and thereafter remain vested in Networks and the Customer shall have no right of property therein:
- (ii) that any portion of the equipment referred to in (a) above that is located on the Customer's property shall be and remain the property of Networks and shall not be or become fixtures and/or part of the Customer's property; and
- (iii) the right to the benefit of any capital cost allowance determined for capital contribution(s) by the Customer for the equipment referred to in (a) above shall be the Customer's.
- 8. The Customer acknowledges and agrees that Networks is not responsible for the provision of power system components on the Customer's Facilities, including, without limitation, all transformation, switching, metering and auxiliary equipment such as protection and control equipment.

All of the power system components on the Customer's side of the Connection Point including, without limitation, all transformation, switching and auxiliary equipment such as protection and control equipment shall be subject to the acceptance of Networks with regard to Networks' requirements to permit connection of the New or Modified Facility to Networks' transmission system, and shall be installed, maintained and operated in accordance with all applicable laws, codes and standards, including, but not limited to, the Transmission System Code, at the expense of the Customer. Networks acceptance is solely for the protection of Networks' Facilities.

- 9. Where Networks has equipment for automatic reclosing of circuit breakers after an interruption for the purpose of improving the continuity of feeder connection, it shall be the obligation of the Customer to provide adequate protective equipment for the Customer's facilities that might be adversely affected by the operation of such reclosing equipment. The Customer shall provide such equipment as may be required from time to time by Networks for the prompt disconnection of any of the Customer's apparatus that might affect the proper functioning of Networks' reclosing equipment.
- 10. The Customer shall provide Networks with copies of the documentation specified in Schedule "A" of the Agreement under the heading "Documentation Required", acceptable to Networks, by no later than 120 calendar days after the Ready for Service Date. The Customer shall ensure that Networks may retain this documentation for Networks' ongoing planning, system design, and operating review. Where the New or Modified Facility is owned by the Customer, the Customer shall also maintain and revise such documentation to reflect changes to the New or

Modified Facility and provide copies to Networks on demand and as specified in the Connection Agreement.

11. Nothing contained within the Agreement, including, subsection 13 below shall preclude, prevent, prohibit or operate as a waiver of any of the parties rights to make application to the OEB, participate in any hearings before the OEB or to make any appeals to a Court of competent jurisdiction regarding any decision by the OEB with respect to any costs and the allocation of any costs associated with, related to, or arising out of the connection of the Project to Networks' transmission system or Networks' policies in respect of connections generally.

#### Part B: Transformation Connection Pool Work and/or Line Connection Pool Work and Non-Poolable Work

12. The Customer shall pay Networks the Actual Cost of the Networks Connection Work described as the Transformation Connection Pool Work and/or Line Connection Pool Work in Schedule "A" of the Agreement which is estimated to be the amount specified in Schedule "B" of the Agreement (plus applicable taxes) (the "Transformation Connection Pool Work Estimate" and/or the "Line Connection Pool Work Estimate").

The Customer shall pay Networks a capital contribution in the amount specified in Schedule "B" of the Agreement (plus applicable taxes) (the "Capital Contribution") in the manner specified in Schedule "B" of the Agreement for that part of the Transformation Connection Pool Work and/or the Line Connection Pool Work that cannot be supported by revenue guarantees.

The Actual Cost of the Transformation Connection Pool Work and/or Line Connection Pool Work shall be particularly identified by Networks by no later than 180 calendar days after the Ready for Service Date and Networks shall also provide the Customer with a new Schedule "B" to replace Schedule "B" of the Agreement attached hereto and that new Schedule "B"shall be made a part hereof as though it had been originally incorporated into the Agreement.

If the Actual Cost of the Transformation Connection Pool Work and/or Line Connection Pool Work exceeds the Transformation Connection Pool Work Estimate and/or the Line Connection Pool Work Estimate, the Customer shall pay an additional capital contribution proportionate to the difference between the Actual Cost and the Transformation Connection Pool Work Estimate (plus applicable taxes) within 30 days after the date of Networks' invoice therefor.

The Actual Cost of the Transformation Connection Pool Work and/or Line Connection Pool Work less any Capital Contribution paid by the Customer is a debt owed to Networks by the Customer and subject to Sections 13 and 14 below, that debt shall be paid by the Customer to Networks on the earlier of the following dates:

- $(i) \hspace{1cm} \hbox{the Guaranteed Revenue Date; and} \\$
- (ii) the date of termination of the Agreement.

## Applicable to 5 Year Economic Study Horizon (Based upon Customer Risk Assessment):

13(a). Notwithstanding Section 12, the parties further agree that, provided that the Actual Incremental Transformation Connection Revenue and/or the Actual Incremental Line Connection Revenue received by Networks is equal to or exceeds the Guaranteed Incremental Transformation Connection Revenue and/or Guaranteed Incremental Line Connection Revenue for a specified period, Networks will forgive an amount of the foregoing debt equal to the amount of the Guaranteed Incremental Transformation Connection Revenue and/or Guaranteed Incremental Line

Connection Revenue specified for the period in question PROVIDED THAT the Customer's peak load met or exceeded the Available Capacity during at least one month of the twelve month period in question.

- 13(b). Commencing on the first anniversary of the Ready for Service Date and every year thereafter during the Term, if the Customer's peak load fails to meet or exceed the Available Capacity during at least one month of the a period, the Customer will not receive a credit for that period and the Customer shall pay Networks the Guaranteed Incremental Transformation Connection Revenue specified for the period in question by no later than 30 days after the date of Networks' invoice therefor.
- 13(c). Commencing on the first anniversary of the Ready for Service Date and every year thereafter during the Term, if the Actual Incremental Transformation Connection Revenue and/or Actual Incremental Line Connection Revenue received by Networks is less than the Guaranteed Incremental Transformation Connection Revenue and/or Guaranteed Incremental Line Connection Revenue specified for the previous year in question, the Customer shall pay Networks the difference by no later than 30 days after the date of Networks' invoice therefor.
- 13(d) Commencing on the first anniversary of the Ready for Service Date and every year thereafter, if the Actual Incremental Transformation Connection Revenue and/or Actual Incremental Line Connection Revenue received by Networks is more than the Guaranteed Incremental Transformation Connection Revenue and/or Guaranteed Incremental Line Connection Revenue specified for the period in question, Networks will reduce the amount of debt owing by the Customer by reducing the amount of Guaranteed Incremental Transformation Connection Revenue and/or Guaranteed Incremental Line Connection Revenue that must be received by Networks during the next period shown in Schedule "B" of the Agreement in an amount equal to the excess amount received by Networks. This may have the effect of shortening the Term of the Agreement.
- 13(e). The Customer acknowledges and agrees that:
- (a) the Incremental Transformation Connection Revenue is distinct revenue that does not include Transformation Connection revenue derived from Base Load Trigger Point or any network revenue; and
- (b) the Incremental Line Connection Revenue is distinct revenue that does not include Line Connection revenue derived from Base Load Trigger Point or any network revenue.

## Applicable to 10 Year Economic Study Horizon (Based upon Customer Risk Assessment):

- 13(a). Notwithstanding Section 12, the parties further agree that, provided that the Actual Incremental Transformation Connection Revenue and/or the Actual Incremental Line Connection Revenue received by Networks is equal to or exceeds the Guaranteed Incremental Transformation Connection Revenue and/or Guaranteed Incremental Line Connection Revenue for a specified period, Networks will forgive an amount of the foregoing debt equal to the amount of the Guaranteed Incremental Transformation Connection Revenue and/or Guaranteed Incremental Line Connection Revenue specified for the period in question PROVIDED THAT the Customer met or exceeded the Available Capacity during at least one month of the twelve month period in question.
- 13(b). Commencing on the first anniversary of the Ready for Service Date and every year thereafter during the Term, if the Customer's peak load fails to meet or exceed the Available

Capacity during at least one month of the a period, the Customer will not receive a credit for that period and the Customer shall pay Networks the Guaranteed Incremental Transformation Connection Revenue specified for the period in question by no later than 30 days after the date of Networks' invoice therefor.

- 13(c) Commencing on the third anniversary of the Ready for Service Date and every third year thereafter during the Term, if the Actual Incremental Transformation Connection Revenue and/or Actual Incremental Line Connection Revenue received by Networks is less than the Guaranteed Incremental Transformation Connection Revenue and/or Guaranteed Incremental Line Connection Revenue specified for the previous three periods in question, the Customer shall pay Networks the difference by no later than 30 days after the date of Networks' invoice therefor.
- 13(d). For every period during the term, with the exception of every third period commencing on the third anniversary of the Ready for Service Date and every third year thereafter, if the Actual Incremental Line Connection Revenue received by Networks is less than the Guaranteed Incremental Line Connection Revenue specified for the period in question and such difference is less than 20% of the Guaranteed Incremental Line Connection Revenue specified for the period in question, the Customer shall be entitled to carry forward that amount (the "Carry Forward Amount"), which shall be added to the Guaranteed Incremental Transformation Connection Revenue for the following period to result in a Revised Guaranteed Incremental Line Connection Revenue for the next following period.

#### Thereafter any reference to:

- (I) Guaranteed Incremental Transformation Connection Revenue in the Agreement shall mean the greater of Guaranteed Incremental Transformation Connection Revenue for the period in question and the Revised Guaranteed Incremental Transformation Connection Revenue; AND
- (II) Guaranteed Incremental Line Connection Revenue in the Agreement shall mean the greater of Guaranteed Incremental Line Connection Revenue for the period in question and the Revised Guaranteed Incremental Line Connection Revenue.
- 13(e). Notwithstanding Section 13(c) above, if in any period during the Term, the Actual Incremental Transformation Connection Revenue and/or Actual Incremental Line Connection Revenue received by Networks is less than the Guaranteed Incremental Transformation Connection Revenue and/or Guaranteed Incremental Line Connection Revenue specified for the period in question and such difference is greater than 20% of the Guaranteed Incremental Transformation Connection Revenue and/or Guaranteed Incremental Line Connection Revenue specified for the period in question, the Customer shall pay Networks the difference by no later than 30 days after the date of Networks' invoice therefor.
- 13(f) Commencing on the third anniversary of the Ready for Service Date and every third year thereafter, if the Actual Incremental Transformation Connection Revenue and/or Actual Incremental Line Connection Revenue received by Networks is more than the Guaranteed Incremental Transformation Connection Revenue and/or Guaranteed Incremental Line Connection Revenue specified for the three periods in question, Networks will reduce the amount of debt owing by the Customer by reducing the amount of Guaranteed Incremental Transformation Connection Revenue and/or Guaranteed Incremental Line Connection Revenue that must be received by Networks during the next three periods shown in Schedule B of the Agreement such that the total reduction over the next three periods is equal to the excess amount received by Networks. This may have the effect of shortening the Term of the Agreement.

- 13(g). The Customer acknowledges and. agrees that:
- (a) the Incremental Transformation Connection Revenue is distinct revenue that does not include Transformation Connection revenue derived from Base Load Trigger Point or any network revenue; and
- (b) the Incremental Line Connection Revenue is distinct revenue that does not include Line Connection revenue derived from Base Load Trigger Point or any network revenue.

## Applicable to 15 and 25 Year Economic Study Horizon (Based upon Customer Risk Assessment):

13(a). Notwithstanding Section 12, the parties further agree that, provided that the Actual Incremental Transformation Connection Revenue and/or the Actual Incremental Line Connection Revenue received by Networks is equal to or exceeds the Guaranteed Incremental Transformation Connection Revenue and/or Guaranteed Incremental Line Connection Revenue for a specified period, Networks will forgive an amount of the foregoing debt equal to the amount of the Guaranteed Incremental Transformation Connection Revenue and/or Guaranteed Incremental Line Connection Revenue specified for the period in question PROVIDED THAT the Customer's peak load met or exceeded the Available Capacity during at least one month of the twelve month period in question.

13(b). Commencing on the first anniversary of the Ready for Service Date and every year thereafter during the Term, if the Customer's peak load fails to meet or exceed the Available Capacity during at least one month of the a period, the Customer will not receive a credit for that period and the Customer shall pay Networks the Guaranteed Incremental Transformation Connection Revenue specified for the period in question by no later than 30 days after the date of Networks' invoice therefor.

13(c). Commencing on the fifth anniversary of the Ready for Service Date and every fifth year thereafter during the Term, if the Actual Incremental Transformation Connection Revenue and/or Actual Incremental Line Connection Revenue received by Networks is less than the Guaranteed Incremental Transformation Connection Revenue and/or Guaranteed Incremental Line Connection Revenue specified for the previous five periods in question, the Customer shall pay Networks the difference by no later than 30 days after the date of Networks' invoice therefor.

13(d). For every period during the term, with the exception of every fifth period commencing on the fifth anniversary of the Ready for Service Date and every fifth year thereafter, if the Actual Incremental Line Connection Revenue received by Networks is less than the Guaranteed Incremental Line Connection Revenue specified for the period in question and such difference is less than 20% of the Guaranteed Incremental Line Connection Revenue specified for the period in question, the Customer shall be entitled to carry forward that amount (the "Carry Forward Amount"), which shall be added to the Guaranteed Incremental Transformation Connection Revenue for the following period to result in a Revised Guaranteed Incremental Line Connection Revenue for the next following period.

#### Thereafter any reference to:

(I) Guaranteed Incremental Transformation Connection Revenue in the Agreement shall mean the greater of Guaranteed Incremental Transformation Connection Revenue for the period in question and the Revised Guaranteed Incremental Transformation Connection Revenue; AND (II) Guaranteed Incremental Line Connection Revenue in the Agreement shall mean the greater of Guaranteed Incremental Line Connection Revenue for the period in question and the Revised Guaranteed Incremental Line Connection Revenue.

13(e). Notwithstanding Section 13(c) above, if in any period during the Term, the Actual Incremental Transformation Connection Revenue and/or Actual Incremental Line Connection Revenue received by Networks is less than the Guaranteed Incremental Transformation Connection Revenue and/or Guaranteed Incremental Line Connection Revenue specified for the period in question and such difference is greater than 20% of the Guaranteed Incremental Transformation Connection Revenue and/or Guaranteed Incremental Line Connection Revenue specified for the period in question, the Customer shall pay Networks the difference by no later than 30 days after the date of Networks' invoice therefor

13(f) Commencing on the fifth anniversary of the Ready for Service Date and every fifth year thereafter, if the Actual Incremental Transformation Connection Revenue and/or Actual Incremental Line Connection Revenue received by Networks is more than the Guaranteed Incremental Transformation Connection Revenue and/or Guaranteed Incremental Line Connection Revenue specified for the five periods in question, Networks will reduce the amount of debt owing by the Customer by reducing the amount of Guaranteed Incremental Transformation Connection Revenue and/or Guaranteed Incremental Line Connection Revenue that must be received by Networks during the next five periods shown in Schedule B of the Agreement such that the total reduction over the next three periods is equal to the excess amount received by Networks. This may have the effect of shortening the Term of the Agreement.

13(g). The Customer acknowledges and. agrees that:

- (a) the Incremental Transformation Connection Revenue is distinct revenue that does not include Transformation Connection revenue derived from Base Load Trigger Point or any network revenue; and
- (b) the Incremental Line Connection Revenue is distinct revenue that does not include Line Connection revenue derived from Base Load Trigger Point or any network revenue.
- 14. The Customer shall pay Networks Actual Cost of the Networks Connection Work described as Non-Poolable Work in Schedule "A" of the Agreement which is estimated to be the amount specified in Schedule "B" of the Agreement (plus applicable taxes) in the manner specified in Schedule "B" of the Agreement.

Within 60 days after the Ready for Service Date, Networks shall provide the Customer with a final invoice or credit memorandum which shall indicate whether the amounts already paid by the Customer exceeds or is less than the Actual Cost of the Non-Poolable Work. Any difference between the Actual Cost of the Non-Poolable Work (plus applicable taxes) and the amount already paid by the Customer shall be paid within 30 days after the rendering of the said final invoice or credit memorandum, by Networks to the Customer, if the amount already paid by the Customer exceeds the Actual Cost of the Non-Poolable Work (plus applicable taxes), or by the Customer to Networks, if the amount already paid by the Customer is less than the Actual Cost of the Non-Poolable Work (plus applicable taxes).

15. As the Project is schedule-driven and as the estimated costs specified in Schedule "B" of the Agreement are based upon normal timelines for delivery of material and performance of work, in addition to the amounts that the Customer is required to pay

pursuant to Section 12 and 14 above, the Customer agrees to pay Networks' Premium Costs if the Customer causes or contributes to any delays, including, but not limited to, the Customer failing to execute the Agreement by the Execution Date specified in Schedule "A" of the Agreement.

Networks will obtain the Customer's approval prior to Networks' authorizing the purchase of materials or the performance of work that will attract Premium Costs. The Customer acknowledges that its failure to approve an expenditure of Premium Costs may result in further delays and Networks will not be liable to the Customer as a result thereof. The Customer shall pay any prior-approved Premium Costs within 30 calendar days after the date of Networks' final invoice therefor, billable at the end of the project. Interest shall be payable at the rate of 18 per cent per year on all overdue payments. The obligation to pay any amount hereunder shall survive the termination of the Agreement.

16(a) If the Project is cancelled, the Agreement is terminated for any reason whatsoever other than breach of the Agreement by Networks, the Customer shall pay Networks' Actual Costs incurred on and prior to the date that the Project is cancelled or the Agreement is terminated, including the preliminary design costs and all costs associated with the winding up of the Project, including, but not limited to, storage costs, facility removal expenses and any environmental remediation costs.

If the Customer provides written notice to Networks that it is cancelling or deferring the Project, Networks shall have 10 Business Days to provide written notice to the Customer listing the individual items listed as materials which it agrees to purchase. Networks shall deduct the actual costs of those individual items of materials being purchased by Networks from the Actual Costs referred to above.

If Networks does not require all or part of the materials, the Customer may exercise any of the following options or a combination thereof:

- (i) where materials have been ordered but all or part of the materials have not been received by Networks, the Customer shall have the right to require Networks, at the Customer's sole expense, to continue with the purchase of the materials and transfer title to those materials on an "as is, where is basis" to the Customer upon the Customer paying Networks's Actual Costs provided that the Customer exercises this option within 15 Business Days of the termination, cancellation or deferral;
- (ii) where all or part of the materials have been received by Networks but have not been installed, the Customer shall have the right to require Networks, at the Customer's sole expense, to transfer title to the materials on an "as is, where is basis" to the Customer upon the Customer paying Networks's Actual Costs provided that the Customer exercises this option within 15 Business Days of the termination, cancellation or deferral. The Customer shall also be responsible for any warehousing costs associated with the storage of the materials to the date of transfer; or
- (iv) where all or part of the materials have been received by Networks and have been installed, the Customer shall have the right to require Networks, at the Customer's sole expense, to: transfer title to the materials on an "as is, where is basis" to the Customer upon the later of (A) the Customer paying Networks's Actual Costs; and (B) the date that Networks removes the materials from its property at the risk of the Customer; provided that the Customer exercises this option within 15 Business Days of the termination, cancellation or deferral. The Customer shall also be responsible for any costs

associated with the installation and the removal of the materials that have been installed by Networks

The Customer shall pay Networks' Actual Costs which become payable under this Section within 30 calendar days after the date of invoice.

16(b). If the Customer wishes to defer the Project, the Parties will negotiate the terms of such deferral.

- 17. In the event that the Customer sells, leases or otherwise transfers or disposes of the Customer's Facilities to a third party during the Term of the Agreement, the Customer shall cause the purchaser, lessee or other third party to whom the Customer's Facilities are transferred or disposed to enter into an assumption agreement with Networks to assume all of the Customer's obligations in the Agreement; and notwithstanding such assumption agreement, the Customer shall remain obligated to pay the amounts thereafter payable pursuant to Sections 12, 13, 14, 15 and 16 by the purchaser, lessee or other third party in the case of a transfer or disposition. The Customer further acknowledges and agrees that in the event that all or a portion of the Customer's Facilities are shut down, abandoned or vacated for any period of time during the Term of the Agreement, the Customer shall remain obligated to pay the amounts payable pursuant to Sections 12, 13, 14 and 15 for the said time period.
- 18. The Customer, whenever required by Networks to do so, shall furnish security satisfactory to Networks for the performance by the Customer of its obligations for pooled and non-pooled costs under the Agreement, and shall maintain the security in full force and effect during the continuance of the Agreement. The security must be in a form acceptable to Networks and may be an irrevocable letter of credit given by a bank chartered in Canada, a surety bond given by a surety company acceptable to Networks, negotiable bonds satisfactory to Networks or a cash deposit. The security provided shall not exceed the remaining amounts owing in respect of the Non-Pool Work and Transformation Connection Pool Work and/or Line Connection Pool Work less any capital contributions.

The Customer, if not in default under the Agreement shall be entitled to the interest payable on negotiable bonds held as security or the interest on cash deposits at the prevailing rate paid by Networks on cash deposits. Where the Customer has furnished any of the forms of security hereinbefore specified, the Customer if not in default as aforesaid shall have the right at any time to substitute for the security any other of the forms of security acceptable to Networks. If at any time the security furnished to Networks becomes unsatisfactory to Networks, the Customer upon request of Networks shall promptly furnish security, within fifteen (15) Business Days of receipt of notice, that is satisfactory to Networks. Security held in regards to the Agreement shall be returned to the Customer once obligations are fulfilled.

Upon or any time after the occurrence or deemed occurrence of an Event of Default and the expiry of the rectification period set forth in Section 23, Networks may do any one or more of the following: (i) exercise its rights and remedies as a secured party with respect to all security, including any such rights and remedies under Applicable Laws then in effect; (ii) exercise its rights of set-off against any and all property of the Customer in the possession of Networks or its agent; (iii) draw on any outstanding letter of credit issued for its benefit; and (iv) liquidate all security then held by or for the benefit of Networks free from any claim or right of any nature whatsoever of the Customer, including any equity or right of purchase or redemption by the Customer. Networks shall apply the proceeds of the collateral realised upon the exercise of any such rights or remedies to reduce the Customer's obligations under the Agreement (the Customer remaining liable for amounts owing to Networks after such application), subject to Networks' obligation to return any surplus proceeds remaining after such obligations are satisfied in full.

#### Part C:

In the event that the Transformation Connection Service Rate or the Line Connection Service Rate is rescinded or the methodology of determination or components is materially changed, the Parties agree to negotiate a new mechanism for the purposes of the Agreement. The Parties shall have 90 calendar days from the effective date of rescission or fundamental change of the Transformation Connection Service Rate or the Line Connection Service Rate to agree to a new mechanism. If the Parties are unable to successfully negotiate a replacement within that 90 calendar day period, they shall submit to arbitration, in accordance with the requirements of the Transmission System Code (or the Connection Agreement attached thereto); or if there is no arbitration provision in the Transmission System Code (or the Connection Agreement attached thereto), to the requirements of the Arbitration Act (Ontario), as amended, to settle on a new mechanism. The decision of the arbitrator shall be binding on each party with no right of appeal.

The terms of reference of the arbitration shall be to identify a new mechanism that is, to the extent possible, fair to the parties and constitutes a reasonably comparable replacement for the Transformation Connection Service Rate or the Line Connection Service Rate.

Any settlement on a new mechanism pursuant to this Section 19 shall apply retroactively from the date on which the Transformation Connection Service Rate or the Line Connection Service Rate was rescinded or fundamentally changed. Until such time as a new mechanism is determined hereunder, any amounts to be paid by the Customer under the Agreement shall be based on the Transformation Connection Service Rate or the Line Connection Service Rate in effect prior to the effective date of any such changes.

#### 20.1 The Customer:

- (a) shall not Transmit or Distribute electricity using the Customer's Facilities to any load now or hereafter supplied from Networks' Facilities or Third Party Facilities and if the Customer does so, the Customer shall pay Networks an amount equal to the avoided applicable Transmission Rates as if the load remained on Networks' Facilities or the Third Party Facilities, as the case may be, until the date that:
  - Networks' Facilities or the Third Party Facilities are removed from service at end-of-useful-life and are not replaced by new transmission facilities; or
  - (ii) Networks requires Networks' Facilities to provide transmission services to other Customers or the affected third party requires the Third Party Facilities to supply its customers.
- (b) shall not permit any third party to transmit or distribute electricity using or by connecting to the Customer's Facilities or in any other manner, to any load now or hereafter supplied from Networks' Facilities or the Third Party Facilities and if the Customer does so, the Customer shall pay Networks an amount equal to the avoided applicable Transmission Rates as if the load remained on Networks' Facilities or the Third Party Facilities until the date that:
  - Networks' Facilities or the Third Party Facilities are removed from service at end-of-useful-life and are not replaced by new transmission facilities; or
  - (ii) Networks requires Networks' Facilities to provide transmission services to other customers or the affected third party requires the Third Party Facilities to supply its customers.

- (c) shall not supply new load growth using the Customer's Facilities or the Third Party Facilities when Networks has spare capacity available at Networks' Facilities to supply such load; and if it does so, the Customer shall pay Networks an amount equal to the avoided applicable Transmission Rates by paying as if the new load were supplied from the Networks Facilities. Notwithstanding the foregoing, the Customer will not owe any amounts to the Networks, if the Customer can demonstrate to the satisfaction of the Networks, acting reasonably, that it would have been uneconomic or inefficient for the Customer to supply the load growth in question using Networks' Facilities.
- (d) shall cause the purchaser, lessee or other third party to whom the Customer sells, leases, or otherwise transfers or disposes of the Customer's Facilities to enter into an assumption agreement with Networks to assume all of the Customer's obligations under this Section 20.1.
- 20.2 Nothing contained within this Agreement, including, without limiting the generality of the foregoing, Section 20.2, shall preclude, prevent, prohibit or operate as a waiver of any of the Parties' rights to:
  - (i) make application to the OEB;
  - (ii) participate in any hearings before the OEB; or
  - (iii) make any appeals to a Court of competent jurisdiction regarding any decision by the OEB,

with respect to any matter, issue, thing, interpretation, consideration or consequence whatsoever that is related to:

- A. the Transmission or Distribution of electricity to any load now or hereafter supplied from Networks' Facilities or the facilities of any licensed electricity distributor by the Customer or by a third party using the Customer's Facilities to supply said load;
- B. the interpretation or application of Section 20.1 above;
- C. the Transmission and Distribution of electricity to any load now or hereafter supplied from Networks facilities other than Networks' Facilities or from facilities of any licensed electricity distributor by any other Customer or by a third party.
- 20.3 Section 20.1 shall be subject to and applied in accordance with any Order or decision made by the OEB or any court with respect to any matter, issue, thing, interpretation, consideration or consequence that relates to:
  - (i) the Transmission and Distribution of electricity to any load now or hereafter supplied from Networks' Facilities or the facilities of any licensed distributor by the Customer or by a third party using the Customer's Facilities to supply said load; and
  - (ii) the terms and conditions of Section 20.1.
- 20.4 With respect to any Order or decision of the OEB or a court relating to the Transmission or Distribution of electricity to any load now or hereafter supplied from facilities other than Networks' Facilities or from the facilities of any licensed distributor by any Customer other than by the Customer or by a third party, the parties acting reasonably shall agree in writing as to application of said Order or decision to Section 20.1 and to any amendments thereto.
- 20.5 Sections 20.1 to 20.4 inclusive shall survive the termination of this Agreement and will be terms of any Connection Agreement or such other agreement as required by the

Transmission System Code that is applicable to the owner and/or operator of the Customer's Facilities.

#### Part D: Easement

21. If specified in Schedule "A" that an easement is required, the Customer shall or the Customer shall cause the third party specified in Schedule "A" to grant an easement to Hydro One substantially in the form of the easement that will be attached hereto as Appendix "C", if required, for the property described as the Easement Lands in Schedule "A" by no later than the date specified as the Easement Date in Schedule "A" (hereinafter referred to as the "Easement") with good and marketable title thereto, free of all encumbrances, first in priority except as noted herein, and in registerable form, in consideration of the sum of \$2.00.

The above Easement shall be for a term of 80 years commencing on the In-Service Date provided that in the event that Networks removes the asset that is the subject of the Easement during the 80-year period, Networks shall surrender the Easement at that time. With respect to the Easement, after the expiry of the 80-year period, the parties agree to enter into good faith negotiations for an extension of the Easement term, if one or the other, or both, of the parties so request. Subject to the foregoing, the Easement shall survive the termination of the Agreement.

#### Part E: Events of Default

- 22. Each of the following events shall constitute an "Event of Default" under the Agreement:
- (a) failure by the Customer to pay any amount due under the Agreement, including any amount payable pursuant to Sections 12, 13, 14, 15 or 16 within the time stipulated for payment;
- (b) breach by the Customer or Networks of any Material term, condition or covenant of the Agreement;
- (c) the making of an order or resolution for the winding up of the Customer or of its operations or the occurrence of any other dissolution or liquidation proceeding instituted by or against the Customer; and
- 23. Upon the occurrence of an Event of Default by the Customer hereunder (other than those specified in section 22(c) of the Agreement, for which no notice is required to be given by Networks), Networks shall give the Customer written notice of the Event of Default and allow the Customer 30 calendar days from the date of receipt of the notice to rectify the Event of Default, at the Customer's sole expense. If such Event of Default is not cured to Networks' reasonable satisfaction within the 30 calendar day period, Networks may, in its sole discretion, exercise the following remedy in addition to any remedies that may be available to Networks under the terms of the Agreement, at common law or in equity: deem the Agreement to be repudiated and, after giving the Customer at least 10 calendar days' prior written notice thereof, recover, as liquidated damages and not as a penalty, the balance of the amounts payable by the Customer pursuant to Sections 12, 13, 14, 15 and 16.
- 24. Upon the occurrence of an Event of Default by Networks hereunder, the Customer shall give Networks written notice of the Event of Default and shall allow Networks 30 calendar days from the date of receipt of the notice to rectify the Event of Default at Networks' sole expense. If such Event of Default is not cured to the Customer's reasonable satisfaction within the 30 calendar day period, the Customer may pursue any remedies available to it at law or in equity, including at its option the termination of the Agreement.

25. All rights and remedies of Networks and the Customer provided herein are not intended to be exclusive but rather are cumulative and are in addition to any other right or remedy otherwise available to Networks and the Customer respectively at law or in equity, and any one or more of Networks' and the Customer's rights and remedies may from time to time be exercised independently or in combination and without prejudice to any other right or remedy Networks or the Customer may have or may have exercised. The parties further agree that where any of the remedies provided for and elected by the non-defaulting party are found to be unenforceable, the non-defaulting party shall not be precluded from exercising any other right or remedy available to it at law or in equity.

In addition to any other remedy provided hereunder, all overdue amounts that are outstanding for longer than 30 days shall bear interest at 18% per annum.

## Part F: Connection Agreement and Transmission System Code

- 26. In the event that the Connection Agreement referred to in Section 5(c) is entered into prior to the effective date of the Transmission System Code, the Parties shall make such amendments to the Connection Agreement as may be necessary to ensure compliance with the mandatory requirements of the Transmission System Code in effect on the date that Section 26(1) of the *Electricity Act*, 1998 (being Schedule "A" of the *Energy Competition Act*, S.O. 1998, c. 15) is proclaimed.
- 27. Until Networks' has published and the Ontario Energy Board has accepted Networks' procedure and methodology for determining the requirement for a capital contribution in accordance with Section 4.1 of the *Transmission System Code*, any Capital Contributions paid by the Customer under the terms of this Agreement are subject to adjustment with such adjustment to be solely based on the procedure and methodology accepted by the OFB

#### Part G: Liability and Force Majeure

28(a) Other than for sums payable under the Agreement, the Customer shall only be liable to Networks and Networks shall only be liable to the Customer for any damages that arise directly out of the willful misconduct or negligence in meeting their respective obligations under the Agreement.

Despite the foregoing, neither Party shall be liable under any circumstances whatsoever for any loss of profits or revenues, business interruption losses, loss of contract or loss of goodwill, or for any indirect, consequential or incidental damages, including but not limited to punitive or exemplary damages, whether any of the said liability, loss or damages arise in statute, contract, tort or otherwise.

For any damage suffered by the Customer prior to the Transmission System Code coming into effect, the total liability of Networks to the Customer for any and all claims for damages under the Agreement whether it arises by statute, contract, tort or otherwise, will not exceed the Actual Cost of the Networks' Connection Work. Once the Transmission System Code comes into effect, Appendix 1, Article 8 of the Transmission System Code shall apply.

This provision shall survive the termination of the Agreement.

28(b). Neither party shall be considered to be in default in the performance of its obligations under the Agreement, except obligations to make payments with respect to amounts already accrued, to the extent that performance of any such obligation is

prevented or delayed by any cause, existing or future, which is beyond the reasonable control of, and not a result of the fault or negligence of, the affected party ("Force Majeure") and includes, but is not limited to, system operating conditions mandated by the IMO, strikes, lockouts and any other labour disturbances and manufacturer's delays for equipment or materials required for the Networks Connection Work. The non-affected party shall be relieved of any obligation hereunder during the continuation of the event of Force Majeure.

If a party is prevented or delayed in the performance of any such obligation by Force Majeure, such party shall immediately provide notice to the other party of the circumstances preventing or delaying performance and the expected duration thereof. Such notice shall be confirmed in writing as soon as reasonably possible. The party so affected by the Force Majeure shall endeavour to remove the obstacles which prevent performance and shall resume performance of its obligations as soon as reasonably practicable, except that there shall be no obligation on the party so affected by the Force Majeure where the event of Force Majeure is a strike, lockout or other labour disturbance.

#### Part H: General

- 29. No amendment, modification or supplement to the Agreement shall be valid or binding unless set out in writing and executed by the parties with the same degree of formality as the execution of the Agreement.
- 30. The failure of any party hereto to enforce at any time any of the provisions of the Agreement or to exercise any right or option which is herein provided shall in no way be construed to be a waiver of such provision or any other provision nor in any way affect the validity of the Agreement or any part hereof or the right of any party to enforce thereafter each and every provision and to exercise any right or option. The waiver of any breach of the Agreement shall not be held to be a waiver of any other or subsequent breach. Nothing shall be construed or have the effect of a waiver except an instrument in writing signed by a duly authorized officer of the party against whom such waiver is sought to be enforced which expressly waives a right or rights or an option or options under the Agreement.
- 31. Each party acknowledges and agrees that it has participated in the drafting of the Agreement and that no portion of the Agreement shall be interpreted less favourably to either party because that party or its counsel was primarily responsible for the drafting of that portion.
- 32. Any written notice required by the Agreement shall be deemed properly given only if either mailed or delivered to the Secretary, Hydro One Networks Inc., 483 Bay Street, South Tower, 10<sup>th</sup> Floor, Toronto, Ontario M5G 2P5, fax no: (416) 345-6240 on behalf of Networks, and to the person at the address specified in Schedule "A" of the Agreement on behalf of the Customer.

A faxed notice will be deemed to be received on the date of the fax if received before 3 p.m. or on the next business day if received after 3 p.m. Notices sent by courier or registered mail shall be deemed to have been received on the date indicated on the delivery receipt. The designation of the person to be so notified or the address of such person may be changed at any time by either party by written notice.

33. The Agreement shall be construed and enforced in accordance with, and the rights of the parties shall be governed by, the laws of the Province of Ontario and the laws of Canada applicable therein, and, subject to Section 19, the courts of Ontario shall have exclusive jurisdiction to determine all disputes arising out of the Agreement.

- 34. The Agreement may be executed in counterparts, including facsimile counterparts, each of which shall be deemed an original, but all of which shall together constitute one and the same agreement.
- 35. The Customer shall provide Networks with a copy of the Customer's final monthly bills associated with Networks' Facilities and/or the Customer's Facilities or authorize the IMO to provide Networks with same. Networks agrees to use this information solely for the purpose of the Agreement.
- 36. The obligation to pay any amount due and payable hereunder, including, but not limited to, any amounts due under Sections 12, 13, 14, 15 or 16 shall survive the termination of the Agreement.

#### Appendix "A": Definitions

Throughout the Agreement, unless there is something in the subject matter or context inconsistent therewith, the following words shall have the following meanings:

- **"Actual Cost"** means Networks' charge for equipment, labour and materials at Networks' standard rates plus Networks' standard overheads and interest thereon.
- "Actual Incremental Transformation Connection Revenue" means the actual amount of transformation connection revenue attributable to the Incremental Load received by Networks through the monthly collection of the Transformation Connection Service Rate for the period specified in Schedule "B" of the Agreement.
- "Actual Incremental Line Connection Revenue" means the actual amount of line connection revenue attributable to the Incremental Load received by Networks through the monthly collection of the Line Connection Service Rate for the period specified in Schedule "B" of the Agreement.
- "Agreement" means the Connection Cost Recovery Agreement, Schedules "A" and "B" attached thereto and these Standard Terms and Conditions.
- "Applicable Laws", means any and all applicable laws, including environmental laws, statutes, codes, licensing requirements, treaties, directives, rules, regulations, protocols, policies, by-laws, orders, injunctions, rulings, awards, judgments or decrees or any requirement or decision or agreement with or by any governmental or governmental department, commission board, court authority or agency.
- "Approval Date" means for the purpose of Subsection 6(f) of the Terms and Conditions, the date specified in Schedule "A" of the Agreement.
- "Available Capacity" is that portion of the existing capacity on Networks' Facilities that can effectively and economically serve the Customer's peak load and is as specified in Schedule "B" of the Agreement.
- **"Base Load Trigger Point"** is as specified in Schedule "B" of the Agreement and was determined using the following formula:
  - Base Load Trigger Point = 3 yr. Avg. PLI \* Available Capacity With:
  - PLI = [(sum of Twelve Monthly Peaks)/Annual Peak\*12]
- **"Business Day"** means a day other than Saturday, Sunday, statutory holiday in Ontario or any other day on which the principal chartered banks located in the City of Toronto, are not open for business during normal banking hours.
- **"Connection Agreement"** has the meaning set forth in the Transmission System Code.
- **"Connection Point"** means the point where the New or Modified Facility is connected to Networks' transmission system.
- "Customer Connection Work" means the work to be performed by the Customer, at its sole expense, which is described in Schedule "A" of the Agreement.
- **"Customer's Facilities"** has the meaning set forth in the Transmission System Code, and includes, but is not limited to the New or Modified Facility where the New or Modified Facility is owned by the Customer. In addition to the foregoing, Customer's

- Facilities may include any other assets specified in Schedule "A" of the Agreement.
- "Customer's Property(ies)" means any lands owned by the Customer in fee simple or where the Customer has easement rights.
- **"Distribute"** has the meaning ascribed thereto in the *Electricity* Act 1998
- **"Emergency"** has the meaning set forth in the Transmission System Code.
- **"Good Utility Practice"** has the meaning set forth in the Transmission System Code.
- "Guaranteed Transformation Connection Revenue" means the minimum amount of transformation connection revenue specified in Schedule "B" attributable to the Load to be received by Networks through the monthly collection of the Transformation Connection Service Rate for the period specified in Schedule "B".
- "Guaranteed Line Connection Revenue" means the minimum amount of line connection revenue specified in Schedule "B" of the Agreement attributable to the Load to be received by Networks through the monthly collection of the Line Connection Service Rate for the period specified in Schedule "B" of the Agreement.
- **"Guaranteed Revenue Date"** means, for the purposes of Section 2 of the Terms and Conditions, the date specified in Schedule "B" of the Agreement.
- "IMO Rules" means the Independent Market Operator (IMO) administered Market Rules, including, but not limited to Chapter 6 thereof.
- **"In Service Date"** means the date that the IMO has approved the final connection of the New or Modified Facility.
- "Incremental Load" is determined using the following formula:
  - [(sum of Twelve Monthly Peaks) (Base Load Trigger Point \*12]
- **"Line Connection Pool"** is as defined or referenced in Networks' transmission rate schedules approved by the OEB on Open Access (being the date that Section 26(1) of the *Electricity Act, 1998* (being Schedule "A" of the *Energy Competition Act, S.O. 1998, c. 15*) comes into force.
- "Line Connection Service Rate" means Networks' line connection service rate approved by the Ontario Energy Board ("OEB") from time to time, or any mechanism instituted in accordance with Section 19).
- "Material" relates to the essence of the contract, more than a mere annoyance to a right, but an actual obstacle preventing the performance or exercise of a right.
- "Networks Connection Work" means the work to be performed by Networks which is described in Schedule "A" of the Agreement.
- "Networks' Facilities" means collectively the Networks' Facilities LV and the Networks' Facilities HV.
- "Networks' Facilities HV" means the facilities owned by Networks specified in Schedule "A" of the Agreement that convey electricity at voltages of more than 50 kilovolts.

- **"Networks' Facilities LV"** means the facilities owned by Networks specified in Schedule "A" of the Agreement that convey electricity at voltages of 50 kilovolts or less.
- "Networks' Property(ies)" means any lands owned by Networks in fee simple or where Networks now or hereafter has obtained easement rights.
- **"New or Modified Facility"** means the facilities specified in Schedule "A" of the Agreement.
- **''Premium Costs'** means those costs incurred by Networks in order to maintain or advance the Ready for Service Date, including, but not limited to, additional amounts expended for materials or services due to short time-frame for delivery; and the difference between having Networks' employees, agents and contractors perform work on overtime as opposed to during normal business hours.
- **"Ready for Service Date"** means the date upon which the Networks Connection Work is fully and completely constructed, installed, commissioned and energised to the Connection Point. The Customer's disconnect switches must be commissioned prior to this date in order to use them as isolation points.
- "Third Party Facilities" means any and all equipment, elements, and facilities of any kind whatsoever owned by someone other than the parties to this connection agreement and that are connected to Networks' transmission system.
- "Transformation Connection Pool" is as defined or referenced in Networks' transmission rate schedules approved by the OEB on Open Access (being the date that Section 26(1) of the *Electricity Act, 1998* (being Schedule "A" of the *Energy Competition Act, S.O. 1998, c. 15*) comes into force.
- "Transformation Connection Service Rate" means Networks' transformation connection service rate approved by the Ontario Energy Board ("OEB") from time to time, or any mechanism instituted in accordance with Section 19).
- "Transmission Rate" has the meaning set forth in the form of Connection Agreement attached to the Transmission System Code.
- "Transmission System Code" means the code of standards and requirements issued by the OEB on July 14, 2000, as it may be amended from time to time, setting forth mandatory terms, conditions and obligations regarding connections between the facilities of distributors and the facilities of transmitters in accordance with the requirements of the *Ontario Energy Board Act*, 1998, including mandatory required terms and conditions for Connection Agreements.
- "Transmit" has the meaning ascribed thereto in the *Electricity Act*, 1998.

#### Appendix "B": Access Provisions

- 1. When the Customer's staff, its contractors, or agents work at Networks' Facilities or site, Networks' safety and environmental requirements shall be observed by such staff, contractors and agents. As a minimum, all Applicable Laws shall govern such work.
- 2. The Customer's staff, its contractors, or agents working at Networks' Facilities or site shall be qualified to work around electrical hazards.
- 3. The Customer's staff, its contractors, or agents shall be entitled to access Networks' Facilities or site, and Networks will grant such access, to carry out work at all reasonable times on reasonable prior notice to Networks, subject to Networks' policies and procedures.
- 4. If the Customer wishes to have access to Networks' Facilities, the Customer shall notify Networks of the particular work to be undertaken and of the date and time when it proposes to access the relevant Facilities, subject to Networks' policies and procedures. Networks shall not unreasonably withhold access to its Facilities.
- 5. At any time when the Customer or its representatives are on or in Networks' site, the Customer and its representatives shall:
- (a) use all reasonable precautions not to damage or interfere with Networks' site and Facilities;
- (b) observe Networks' requirements for reporting occupational health and safety, electrical safety, environmental requirements, technical requirements, and matters of industrial relations; and
- (c) neither ask questions, nor give any direction, instruction or advice to any person involved in operating or maintaining Networks' site or Facilities, other than the person whom Networks has designated for that purpose.
- 6. If the Customer or its representatives cause any loss or damage when given access to Networks', the Customer or its representative shall promptly advise Networks' controlling authority of the loss or damage.
- 7. The Customer shall not, and shall ensure that its representatives do not, intentionally interfere with any of Networks' Facilities in or on its sites. The Customer shall use reasonable efforts not to cause loss or damage to Networks' Facilities. If the Customer interferes with any of Networks' Facilities, it shall indemnify Networks for reasonable costs and expenses incurred from any resulting loss or damage.
- 8. In an emergency, Networks may, as far as reasonably necessary in the circumstances, have access to and interfere with the Customers' Facilities. Networks shall use reasonable efforts not to cause loss or damage to the Customer's Facilities. If Networks interferes with any of the Customer's Facilities, it shall indemnify the Customer for reasonable costs and expenses incurred from any resulting loss or damage.
- 9. Where the Customer requests assistance from Network beyond routine OM&A activities, the Customer shall pay Networks its Actual Costs related to the Customer's staff, contractors or agents accessing Network's Facilities or sites, including, but not limited to, the cost of having a Networks representative accompany the Customer's staff, contractors, or agents accessing Network's Facilities or sites in accordance with the invoices rendered by Networks.

- 10. The Customer shall indemnify and save harmless Networks from and against all liabilities, damages, suits, claims, demands, costs, actions, proceedings, causes of action, losses, expenses and injury (including death) of any kind or nature whatsoever (the "causes of action") resulting from, caused by or in any manner connected with installed Customer equipment on Networks' Facilities or sites or Customer's staff, its contractors, or agents accessing Network's Facilities or sites including, but not limited to:
- (a) causes of actions arising out of health and safety violations or environmental spills;
- (b) costs incurred by Networks having to pay other customers due to interruptions caused by the Customer;
- (c) damage to Networks equipment;
- (d) incremental costs and expenses incurred by Networks related to the Customer's equipment installations, removals, relocations, upgrades, or any other Customer work.

except to the extent that the "causes of action" are caused by the negligence or willful misconduct of Networks.

11. Where Networks staff, contractors, or agents require access to the Customer's Facilities or site, clauses 1 to 10 will apply reciprocally.

## **Appendix 8**

Project Status Report Form (IMO Form 1399)



## **Project Status Report**

Please submit this form as an e-mail attachment to <u>connection.assessments@theIMO.com</u>, and then by mail, courier, or fax to the following address:

The IMO 655 Bay Street, Suite 410 P.O. Box 1 Toronto, ON M5G 2K4 Fax number: (905) 855-6471

Subject: Project Status Report

All information submitted in this process will be used by the IMO solely in support of its obligations under the *Electricity Act, 1998*, the *Ontario Energy Board Act, 1998*, the *Market Rules* and associated policies, standards and procedures and its licence. All information submitted will be assigned the appropriate confidentiality level upon receipt.

### PART 1 – GENERAL INFORMATION

Org	anization Name:					
CA	A ID No.:	_				
Ma	in Contact					
Nan	ne:	Position:				
Tele	ephone No.:	Fax No.:				
E-m	ail Address:					
PART 2 – PROJECT STATUS						
Please indicate the current and expected level of project activity by placing a \infty in the table below.						
1 Project is currently active, and is expected to be completed						
2 Project is on hold, but is expected to be completed						
3 Project is not currently active, and is not expected to be completed						

If the level of activity is either 1 or 2 above, please complete Table 1 on the following page. Otherwise, please proceed to Part 3.

### TABLE 1 – PROJECT STATUS

	ACTIVITY OR MILESTONE	Status Code	Actual or Expected Completion Date	Comments		
1	OEB Leave to Construct order					
2	All required regulatory approvals					
3	Transmitter release estimates					
4	Project financing					
5	Construction / cost allocation agreement with transmitter					
6	Construction of facility					
7	Connection Agreement with Transmitter					
8	Commissioning of facility					
9	IMO Participant Authorization					
10	IMO facility registration					
11	IMO Telecommunication links					
12	IMO meter registration					
13	Facility placed in service					
Stati	Status Code: C – Complete, P – In progress, N – not started, NA – not applicable					

### PART 3 – CERTIFICATION

The undersigned hereby declares that the information contained in and submitted in support of this document is, to the best of the connection applicant's knowledge, complete and accurate. By signature the connection applicant agrees that information may be provided to the affected transmitter(s).						
Name (Please Print)	Title					
Signature	Date					
PART 4 – FOR IMO USE ONLY						
Received by:  CAA ID No.:	Date Received:					

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## **Appendix 9**

Connection Interface Requirements

The following Connection Interface Documents are required for review in the Execution phase:

#### Group A:

- 1. IMO application-for information only.
- 2. System 1 line showing ratings of all electrical equipment, such as circuit switchers, bushing potential devises, CVTs, power transformers, grounding transformers, grounding resistors, breakers, generator, prime mover, exciter, etc.
- 3. GPR study and associated station ground design.
- 4. Entrance structure (electrical & structural)
- 5. General arrangement of the station
- 6. Location of HON equipment

#### **Group B:**

- 1. DC station service 1 line showing ratings of all electrical equipment such as batteries, chargers, etc.
- 2. Information on switchgear fault ratings
- 3. HV surge arrestor specification
- 4. RTU configuration/communications protocol
- 5. Teleprotection ac & dc EWD including information on proposed vendor equipment
- 6. Line protection ac & dc EWD
- 7. Transformer protection, generator & generator bus frequency and voltage protection ac & dc EWD
- 8. Circuit switcher or HV breaker ac & dc EWD
- 9. LV breaker (generator, transformer & bus tie breakers) ac & dc EWD
- 10. Breaker failure (HVI, generator, transformer & bus tie breakers) ac & dc EWD
- 11. HV equipment operating & protection philosophy

#### **Group C:**

- 1. Power transformer & generator nameplate
- 2. Relay settings including relay logic diagrams, coordination studies and fault calculations.
- 3. Commissioning procedure
- Identify all submitted documents with revision numbers and/or dates in a transmittal.
- All submitted Connection Interface Documents are to be sent via courier from the customer to the HON contact, usually in Major Projects/Program Execution.
- All submitted drawings are to be submitted in full size, folded & collated into packages for HON internal distribution. For example, if there are 6 sets, then we should expect 6 packages in one courier package.
- Number of sets:
  - All 1 lines/10 sets
  - General arrangement/6 sets
  - All other drawings/documents/4 sets

## **Appendix 10**

Witness of Verification Evidence Report



#### **Hydro One Networks Inc.** 483 Bay Street, 15<sup>th</sup> Floor, North Tower Toronto, Ontario, Canada M5G 2P5

WITNESS OF VERIFICATION EVIDENCE REPORT			
NAME OF CUSTOMER			
NAME OF FACILITY			
IMO IDENTIFIER			
TRANSMITTER IDENTIFIER (plan number, operating designation)			
TRANSMISSION CIRCUIT CONNECTIONS			
SIGNATURES:			
Signature of Hydro One Networks Agent	Signature of Customer Representative		
Print Name:	Print Name:		
Title:	Title:		
Date:	Date:		
☐ DISTRIBUTION LIST: ☐ Transmitter , ☐ Customer, ☐ Agent, ☐ Director/NOD ☐ IMO, ☐ Transmitter Record (original)			

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Jis commissioning in compliance with the submitted Commissioning Procedure?	<b>PART 1: Witness Verification-Protection &amp; Control Disciplines</b> LEGEND: Y = Yes, N = No, N/A = Not Applicable	Legend	Initial	Date	Note #
Are approved relay settings applied?  Witness the following protection tests:  Line Protection  HV Breaker Failure Protection  LV Breaker Failure Protection  Under and Over Prequency  Under and Over Prequency  Under and Over Prequency  Under and Over Prequency  Blocking Scheme Circuits  Generation Rejection & Load Rejection Circuits  Reverse Power  Witness the following SCADA telemetry quantities indicate correctly at TOC/TOMC for customer owned TS:  HV MW per transformer  HV MAY per transformer  HV Phase to Phase Voltages per HV winding (R, W, B)  LV MW per LV Bus  LV MAY per LV Bus  LV Phase to Phase Voltages (R, W, B)  HV Under-Load Tap Changer Positions  HV Disconnect Switches/HV Circuit Switches/Breakers Open/Close Status  LV Capacitor Breakers Open/Close Status  HV Blows and Directions  MYAF Flow and Directions  Phase to Phase Voltages  HV switchers/HV breakers/Bus Tie Breakers Open/Close Status  LV Lie Disconnect Switches Open/Close Status  AVRs, PSSs status  Generation Rejection Selection Status  LV Breakers/Switchers, Open/Close Status  LV Synchronizing Breakers Open/Close Status  LV Synchronizing Breakers Open/Close Status  LV Breakers/Switchers, Open/Close Status				M/d/yyyy	
Witness the following protection tests:  Line Protection  HV Breaker Failure Protection  LV Breaker Failure Protection  LV Breaker Failure Protection  Transformer Differential  Transformer Brekup Protection  Under and Over Proquency  Under and Over Proquency  Under and Over Voltage  Transfor Trip/Remote Trip  Blocking Scheme Circuits  Generation Rejection & Load Rejection Circuits  Reverse Power  Witness the following SCADA telemetry quantities indicate correctly at TOC/TOMC for customer owned TS:  HV MW per transformer  HV MVAr per transformer  HV MVAr per transformer  HV MVAr per tV Bus  LV MVAr per LV Bus  LV Transformer Switches/HV Circuit Switchers/Breakers Open/Close Status  LV Transformer & Swi Tie Breakers Open/Close Status  LV Transformer & Swi Tie Breakers Open/Close Status  LV Capacitor Breakers Open/Close Status  NVAr Flow and Directions  MVAr Flow and Directions  MVAr Flow and Directions  Phase to Phase Voltages  HV switchers/HV breakers/Bus Tie Breakers Open/Close Status  Synchronizing Breakers Open/Close Status  LV Expression Selection Status  Witness the following SCADA telemetry quantities indicate correctly at TOC/TOMC for customer owned GS:  MVFlows and Directions  MVAr Flow and Directions  Phase to Phase Voltages  HV switchers/HV breakers/Bus Tie Breakers Open/Close Status  Synchronizing Breakers Open/Close Status  LV Breakers/Switchers, Open/Close Status	• Is commissioning in compliance with the submitted Commissioning Procedure?				
Line Protection HY Breaker Failure Protection LV Breaker Failure Protection Transformer Differential Transformer Differential Transformer Backup Protection Under and Over Prequency Under and Over Voltage Transfer TripRemote Trip Blocking Scheme Circuits Generation Rejection & Load Rejection Circuits Reverse Power Witness the following SCADA telemetry quantities indicate correctly at TOC/TOMC for customer owned TS:  HV MW per transformer HV MVAr per transformer HV MVAr per transformer HV Phase to Phase Voltages (R, W, B) LV MW per LV Bus LV Phase to Phase Voltages (R, W, B) HV Under-Load Tap Changer Positions HV Disconnect Switchers/HV Circuit Switchers/Breakers Open/Close Status LV Capacitor Breakers Open/Close Status Common Protection Trip Alarm each HV Circuit Witness the following SCADA telemetry quantities indicate correctly at TOC/TOMC for customer owned GS:  MW Flows and Directions HW Disconnect Switchers/HV Circuit Switchers/Breakers Open/Close Status LV Capacitor Breakers Open/Close Status LV Capacitor Breakers Open/Close Status LV Capacitor Breakers Open/Close Status LV Disconnect Switchers/HV Circuit Switchers/Breakers Open/Close Status LV Disconnect Switchers/HV Disconnect Switchers/Breakers Open/Close Status LV Disconnect Switchers/Bro Tie Breakers Open/Close Status HV Line Disconnect Switchers/Bro Tie Breakers Open/Close Status HV Line Disconnect Switchers, Open/Close Status LV Synchronizing Breakers Open/Close Status	• Are approved relay settings applied?				
HV Breaker Failure Protection LV Breaker Failure Protection Transformer Differential Transformer Backup Protection Under and Over Frequency Under and Over Frequency Under and Over Voltage Transfer Trip/Remote Trip Blocking Scheme Circuits Generation Rejection & Load Rejection Circuits Reverse Power  Witness the following SCADA telemetry quantities indicate correctly at TOC/TOMC for customer owned TS:  HV MW per transformer HV WAAr per transformer HV Phase to Phase Voltages per HV winding (R, W, B) LV MW per LV Bus LV Phase to Phase Voltages (R, W, B) HV Under-Load Tap Changer Positions HV Disconnect Switches/HV Circuit Switchers/Breakers Open/Close Status LV Capacitor Breakers Open/Close Status Common Protection Trip Alarm each HV Circuit  Witness the following SCADA telemetry quantities indicate correctly at TOC/TOMC for customer owned GS:  MW Flows and Directions MVAF Flow and Directions HV Disconnect Switches/Hus Tie Breakers Open/Close Status HV Line Disconnect Switches/Bus Tie Breakers Open/Close Status HV Line Disconnect Switches Open/Close Status Common Protection Trip Alarm each HV Circuit  Witness the following SCADA telemetry quantities indicate correctly at TOC/TOMC for customer owned GS:  MV Flows and Directions HV Line Disconnect Switches Open/Close Status LV Synchronizing Breakers Open/Close Status	• Witness the following protection tests:				
I.V Breaker Failure Protection Transformer Differential Transformer Differential Under and Over Frequency Under and Over Voltage Transfer Trip/Remote Trip Blocking Scheme Circuits Generation Rejection & Load Rejection Circuits Reverse Power Witness the following SCADA telemetry quantities indicate correctly at TOC/TOMC for customer owned TS: HV MW per transformer HV Whar per transformer HV Phase to Phase Voltages per HV winding (R, W, B) LV MW per LV Bus LV MVAr per LV Bus LV Phase to Phase Voltages (R, W, B) HV Under-Load Tap Changer Positions HV Disconnect Switches/HV Circuit Switchers/Breakers Open/Close Status LV Capacitor Breakers Open/Close Status LV Capacitor Breakers Open/Close Status Witness the following SCADA telemetry quantities indicate correctly at TOC/TOMC for customer owned TS:  Witness the following SCADA telemetry quantities indicate correctly at TOC/TOMC for customer owned GS:  Witness the following SCADA telemetry quantities indicate correctly at TOC/TOMC for customer owned GS:  MW Flows and Directions HV Switchers/HV breakers/Bus Tie Breakers Open/Close Status HV Line Disconnect Switches/Bus Tie Breakers Open/Close Status HV Line Disconnect Switches Open/Close Status AVRs, PSSs status Generation Rejection Selection Status LV Synchronizing Breakers Open/Close Status	• Line Protection				
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Generation Rejection & Load Rejection Circuits Reverse Power  Witness the following SCADA telemetry quantities indicate correctly at TOC/TOMC for customer owned TS:  HV MW per transformer HV MVAr per transformer HV Phase to Phase Voltages per HV winding (R, W, B) LV MW per LV Bus LV MW per LV Bus LV Moder Load Tap Changer Positions HV Under-Load Tap Changer Positions HV Disconnect Switches/HV Circuit Switchers/Breakers Open/Close Status LV Transformer & Bus Tie Breakers Open/Close Status LV Capacitor Breakers Open/Close Status Common Protection Trip Alarm each HV Circuit  Witness the following SCADA telemetry quantities indicate correctly at TOC/TOMC for customer owned GS:  MW Flows and Directions Phase to Phase Voltages HV switchers/HV breakers/Bus Tie Breakers Open/Close Status HV Line Disconnect Switches Open/Close Status Synchronizing Breakers Open/Close Status AVRs, PSSs status Generation Rejection Selection Status LV Breakers/Switchers, Open/Close Status LV Synchronizing Breakers Open/Close Status LV Synchronizing Breakers Open/Close Status	• Transfer Trip/Remote Trip				
Reverse Power  Witness the following SCADA telemetry quantities indicate correctly at TOC/TOMC for customer owned TS:  HV MW per transformer HV Phase to Phase Voltages per HV winding (R, W, B) LV MW per LV Bus LV MVAr per LV Bus LV Phase to Phase Voltages (R, W, B) HV Under-Load Tap Changer Positions HV Disconnect Switches/HV Circuit Switchers/Breakers Open/Close Status LV Transformer & Bus Tie Breakers Open/Close Status LV Capacitor Breakers Open/Close Status Common Protection Trip Alarm each HV Circuit Witness the following SCADA telemetry quantities indicate correctly at TOC/TOMC for customer owned GS:  MW Flows and Directions MV Ar Flow and Directions Phase to Phase Voltages HV switchers/HV breakers/Bus Tie Breakers Open/Close Status HV Line Disconnect Switches Open/Close Status Synchronizing Breakers Open/Close Status AVRs, PSSs status Generation Rejection Selection Status LV Breakers/Switchers, Open/Close Status LV Breakers/Switchers, Open/Close Status LV Breakers/Switchers, Open/Close Status LV Synchronizing Breakers Open/Close Status	Blocking Scheme Circuits				
Witness the following SCADA telemetry quantities indicate correctly at TOC/TOMC for customer owned TS:  HV MW per transformer HV MVAr per transformer HV Phase to Phase Voltages per HV winding (R, W, B) LV MW per LV Bus LV MVAr per LV Bus LV Phase to Phase Voltages (R, W, B) HV Under-Load Tap Changer Positions HV Disconnect Switches/HV Circuit Switchers/Breakers Open/Close Status LV Transformer & Bus Tie Breakers Open/Close Status LV Capacitor Breakers Open/Close Status Common Protection Trip Alarm each HV Circuit Witness the following SCADA telemetry quantities indicate correctly at TOC/TOMC for customer owned GS:  MW Flows and Directions MVAr Flow and Directions MVAr Flow and Directions HV switchers/HV breakers/Bus Tie Breakers Open/Close Status HV Line Disconnect Switches Open/Close Status Synchronizing Breakers Open/Close Status AVRs, PSSs status Generation Rejection Selection Status LV Breakers/Switchers, Open/Close Status LV Breakers/Switchers, Open/Close Status LV Breakers/Switchers, Open/Close Status LV Synchronizing Breakers Open/Close Status	<ul> <li>Generation Rejection &amp; Load Rejection Circuits</li> </ul>				
HV MW per transformer HV MVAr per transformer HV Phase to Phase Voltages per HV winding (R, W, B) LV MW per LV Bus LV MVAr per LV Bus LV Phase to Phase Voltages (R, W, B) HV Under-Load Tap Changer Positions HV Disconnect Switches/HV Circuit Switchers/Breakers Open/Close Status LV Transformer & Bus Tie Breakers Open/Close Status LV Capacitor Breakers Open/Close Status Common Protection Trip Alarm each HV Circuit Witness the following SCADA telemetry quantities indicate correctly at TOC/TOMC for customer owned GS:  MW Flows and Directions MVAr Flow and Directions MVAr Flow and Directions HV switchers/HV breakers/Bus Tie Breakers Open/Close Status HV Line Disconnect Switches Open/Close Status Synchronizing Breakers Open/Close Status Synchronizing Breakers Open/Close Status Generation Rejection Selection Status LV Breakers/Switchers, Open/Close Status LV Breakers/Switchers, Open/Close Status LV Breakers/Switchers, Open/Close Status LV Breakers/Switchers, Open/Close Status LV Synchronizing Breakers Open/Close Status	• Reverse Power				
HV MVAr per transformer HV Phase to Phase Voltages per HV winding (R, W, B) LV MW per LV Bus LV MVAr per LV Bus LV Phase to Phase Voltages (R, W, B) HV Under-Load Tap Changer Positions HV Disconnect Switches/HV Circuit Switchers/Breakers Open/Close Status LV Transformer & Bus Tie Breakers Open/Close Status LV Capacitor Breakers Open/Close Status Common Protection Trip Alarm each HV Circuit  Witness the following SCADA telemetry quantities indicate correctly at TOC/TOMC for customer owned GS:  MW Flows and Directions MVAr Flow and Directions HV switchers/HV breakers/Bus Tie Breakers Open/Close Status HV Line Disconnect Switches Open/Close Status Synchronizing Breakers Open/Close Status Generation Rejection Selection Status LV Breakers/Switchers, Open/Close Status LV Breakers/Switchers, Open/Close Status LV Breakers/Switchers, Open/Close Status LV Synchronizing Breakers Open/Close Status LV Synchronizing Breakers Open/Close Status LV Synchronizing Breakers Open/Close Status	Witness the following SCADA telemetry quantities indicate correctly at TOC/TOMC	for custor	mer owned	TS:	
HV Phase to Phase Voltages per HV winding (R, W, B)  LV MW per LV Bus  LV MVAr per LV Bus  LV Phase to Phase Voltages (R, W, B)  HV Under-Load Tap Changer Positions  HV Disconnect Switches/HV Circuit Switchers/Breakers Open/Close Status  LV Transformer & Bus Tie Breakers Open/Close Status  LV Capacitor Breakers Open/Close Status  Common Protection Trip Alarm each HV Circuit  Witness the following SCADA telemetry quantities indicate correctly at TOC/TOMC for customer owned GS:  MW Flows and Directions  MVAr Flow and Directions  Phase to Phase Voltages  HV switchers/HV breakers/Bus Tie Breakers Open/Close Status  HV Line Disconnect Switches Open/Close Status  Synchronizing Breakers Open/Close Status  AVRs, PSSs status  Generation Rejection Selection Status  LV Breakers/Switchers, Open/Close Status  LV Breakers/Switchers, Open/Close Status  LV Synchronizing Breakers Open/Close Status  LV Synchronizing Breakers Open/Close Status  LV Synchronizing Breakers Open/Close Status	HV MW per transformer				
LV MW per LV Bus LV MVAr per LV Bus LV Phase to Phase Voltages (R, W, B) HV Under-Load Tap Changer Positions HV Disconnect Switches/HV Circuit Switchers/Breakers Open/Close Status LV Transformer & Bus Tie Breakers Open/Close Status LV Capacitor Breakers Open/Close Status Common Protection Trip Alarm each HV Circuit  Witness the following SCADA telemetry quantities indicate correctly at TOC/TOMC for customer owned GS:  MW Flows and Directions MVAr Flow and Directions MVAr Flow and Directions HV switchers/HV breakers/Bus Tie Breakers Open/Close Status HV Line Disconnect Switches Open/Close Status Synchronizing Breakers Open/Close Status AVRs, PSSs status Generation Rejection Selection Status LV Breakers/Switchers, Open/Close Status LV Breakers/Switchers, Open/Close Status LV Synchronizing Breakers Open/Close Status LV Synchronizing Breakers Open/Close Status LV Synchronizing Breakers Open/Close Status	• HV MVAr per transformer				
LV MVAr per LV Bus  LV Phase to Phase Voltages (R, W, B)  HV Under-Load Tap Changer Positions  HV Disconnect Switches/HV Circuit Switchers/Breakers Open/Close Status  LV Transformer & Bus Tie Breakers Open/Close Status  LV Capacitor Breakers Open/Close Status  Common Protection Trip Alarm each HV Circuit  Witness the following SCADA telemetry quantities indicate correctly at TOC/TOMC for customer owned GS:  MW Flows and Directions  MVAr Flow and Directions  MVAr Flow and Directions  HV switchers/HV breakers/Bus Tie Breakers Open/Close Status  HV Line Disconnect Switches Open/Close Status  Synchronizing Breakers Open/Close Status  AVRs, PSSs status  Generation Rejection Selection Status  LV Breakers/Switchers, Open/Close Status  LV Breakers/Switchers, Open/Close Status  LV Synchronizing Breakers Open/Close Status	• HV Phase to Phase Voltages per HV winding (R, W, B)				
LV Phase to Phase Voltages (R, W, B)  HV Under-Load Tap Changer Positions  HV Disconnect Switches/HV Circuit Switchers/Breakers Open/Close Status  LV Transformer & Bus Tie Breakers Open/Close Status  LV Capacitor Breakers Open/Close Status  Common Protection Trip Alarm each HV Circuit  Witness the following SCADA telemetry quantities indicate correctly at TOC/TOMC for customer owned GS:  MW Flows and Directions  MVAr Flow and Directions  MVAr Flow and Directions  HV switchers/HV breakers/Bus Tie Breakers Open/Close Status  HV Line Disconnect Switches Open/Close Status  Synchronizing Breakers Open/Close Status  AVRs, PSSs status  Generation Rejection Selection Status  LV Breakers/Switchers, Open/Close Status  LV Synchronizing Breakers Open/Close Status  LV Spreakers/Switchers, Open/Close Status	• LV MW per LV Bus				
HV Under-Load Tap Changer Positions HV Disconnect Switches/HV Circuit Switchers/Breakers Open/Close Status LV Transformer & Bus Tie Breakers Open/Close Status LV Capacitor Breakers Open/Close Status Common Protection Trip Alarm each HV Circuit  Witness the following SCADA telemetry quantities indicate correctly at TOC/TOMC for customer owned GS:  MW Flows and Directions MVAr Flow and Directions Phase to Phase Voltages HV switchers/HV breakers/Bus Tie Breakers Open/Close Status HV Line Disconnect Switches Open/Close Status Synchronizing Breakers Open/Close Status AVRs, PSSs status Generation Rejection Selection Status LV Breakers/Switchers, Open/Close Status LV Synchronizing Breakers Open/Close Status LV Synchronizing Breakers Open/Close Status LV Synchronizing Breakers Open/Close Status	• LV MVAr per LV Bus				
HV Disconnect Switches/HV Circuit Switchers/Breakers Open/Close Status  LV Transformer & Bus Tie Breakers Open/Close Status  LV Capacitor Breakers Open/Close Status  Common Protection Trip Alarm each HV Circuit  Witness the following SCADA telemetry quantities indicate correctly at TOC/TOMC for customer owned GS:  MW Flows and Directions  MVAr Flow and Directions  HV switchers/HV breakers/Bus Tie Breakers Open/Close Status  HV Line Disconnect Switches Open/Close Status  Synchronizing Breakers Open/Close Status  AVRs, PSSs status  Generation Rejection Selection Status  LV Breakers/Switchers, Open/Close Status  LV Synchronizing Breakers Open/Close Status  LV Synchronizing Breakers Open/Close Status	• LV Phase to Phase Voltages (R, W, B)				
<ul> <li>LV Transformer &amp; Bus Tie Breakers Open/Close Status</li> <li>LV Capacitor Breakers Open/Close Status</li> <li>Common Protection Trip Alarm each HV Circuit</li> <li>Witness the following SCADA telemetry quantities indicate correctly at TOC/TOMC for customer owned GS:</li> <li>MW Flows and Directions</li> <li>MVAr Flow and Directions</li> <li>Phase to Phase Voltages</li> <li>HV switchers/HV breakers/Bus Tie Breakers Open/Close Status</li> <li>HV Line Disconnect Switches Open/Close Status</li> <li>Synchronizing Breakers Open/Close Status</li> <li>AVRs, PSSs status</li> <li>Generation Rejection Selection Status</li> <li>LV Breakers/Switchers, Open/Close Status</li> <li>LV Synchronizing Breakers Open/Close Status</li> <li>LV Synchronizing Breakers Open/Close Status</li> </ul>	HV Under-Load Tap Changer Positions				
<ul> <li>LV Capacitor Breakers Open/Close Status</li> <li>Common Protection Trip Alarm each HV Circuit</li> <li>Witness the following SCADA telemetry quantities indicate correctly at TOC/TOMC for customer owned GS:</li> <li>MW Flows and Directions</li> <li>MVAr Flow and Directions</li> <li>Phase to Phase Voltages</li> <li>HV switchers/HV breakers/Bus Tie Breakers Open/Close Status</li> <li>HV Line Disconnect Switches Open/Close Status</li> <li>Synchronizing Breakers Open/Close Status</li> <li>AVRs, PSSs status</li> <li>Generation Rejection Selection Status</li> <li>LV Breakers/Switchers, Open/Close Status</li> <li>LV Synchronizing Breakers Open/Close Status</li> <li>LV Synchronizing Breakers Open/Close Status</li> </ul>	• HV Disconnect Switches/HV Circuit Switchers/Breakers Open/Close Status				
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Witness the following SCADA telemetry quantities indicate correctly at TOC/TOMC for customer owned GS:  MW Flows and Directions  MVAr Flow and Directions  Phase to Phase Voltages  HV switchers/HV breakers/Bus Tie Breakers Open/Close Status  HV Line Disconnect Switches Open/Close Status  Synchronizing Breakers Open/Close Status  AVRs, PSSs status  Generation Rejection Selection Status  LV Breakers/Switchers, Open/Close Status  LV Synchronizing Breakers Open/Close Status  LV Synchronizing Breakers Open/Close Status	• LV Capacitor Breakers Open/Close Status				
<ul> <li>MW Flows and Directions</li> <li>MVAr Flow and Directions</li> <li>Phase to Phase Voltages</li> <li>HV switchers/HV breakers/Bus Tie Breakers Open/Close Status</li> <li>HV Line Disconnect Switches Open/Close Status</li> <li>Synchronizing Breakers Open/Close Status</li> <li>AVRs, PSSs status</li> <li>Generation Rejection Selection Status</li> <li>LV Breakers/Switchers, Open/Close Status</li> <li>LV Synchronizing Breakers Open/Close Status</li> <li>LV Synchronizing Breakers Open/Close Status</li> </ul>	Common Protection Trip Alarm each HV Circuit				
<ul> <li>MVAr Flow and Directions</li> <li>Phase to Phase Voltages</li> <li>HV switchers/HV breakers/Bus Tie Breakers Open/Close Status</li> <li>HV Line Disconnect Switches Open/Close Status</li> <li>Synchronizing Breakers Open/Close Status</li> <li>AVRs, PSSs status</li> <li>Generation Rejection Selection Status</li> <li>LV Breakers/Switchers, Open/Close Status</li> <li>LV Synchronizing Breakers Open/Close Status</li> </ul>	Witness the following SCADA telemetry quantities indicate correctly at TOC/TOMC	for custo	mer owned	d GS:	
<ul> <li>Phase to Phase Voltages</li> <li>HV switchers/HV breakers/Bus Tie Breakers Open/Close Status</li> <li>HV Line Disconnect Switches Open/Close Status</li> <li>Synchronizing Breakers Open/Close Status</li> <li>AVRs, PSSs status</li> <li>Generation Rejection Selection Status</li> <li>LV Breakers/Switchers, Open/Close Status</li> <li>LV Synchronizing Breakers Open/Close Status</li> <li>LV Synchronizing Breakers Open/Close Status</li> </ul>	MW Flows and Directions				
<ul> <li>HV switchers/HV breakers/Bus Tie Breakers Open/Close Status</li> <li>HV Line Disconnect Switches Open/Close Status</li> <li>Synchronizing Breakers Open/Close Status</li> <li>AVRs, PSSs status</li> <li>Generation Rejection Selection Status</li> <li>LV Breakers/Switchers, Open/Close Status</li> <li>LV Synchronizing Breakers Open/Close Status</li> <li>LV Synchronizing Breakers Open/Close Status</li> </ul>	• MVAr Flow and Directions				
<ul> <li>HV Line Disconnect Switches Open/Close Status</li> <li>Synchronizing Breakers Open/Close Status</li> <li>AVRs, PSSs status</li> <li>Generation Rejection Selection Status</li> <li>LV Breakers/Switchers, Open/Close Status</li> <li>LV Synchronizing Breakers Open/Close Status</li> </ul>	• Phase to Phase Voltages				
<ul> <li>Synchronizing Breakers Open/Close Status</li> <li>AVRs, PSSs status</li> <li>Generation Rejection Selection Status</li> <li>LV Breakers/Switchers, Open/Close Status</li> <li>LV Synchronizing Breakers Open/Close Status</li> </ul>	• HV switchers/HV breakers/Bus Tie Breakers Open/Close Status				
<ul> <li>AVRs, PSSs status</li> <li>Generation Rejection Selection Status</li> <li>LV Breakers/Switchers, Open/Close Status</li> <li>LV Synchronizing Breakers Open/Close Status</li> </ul>	HV Line Disconnect Switches Open/Close Status				
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<ul> <li>Generation Rejection Selection Status</li> <li>LV Breakers/Switchers, Open/Close Status</li> <li>LV Synchronizing Breakers Open/Close Status</li> </ul>	• AVRs, PSSs status				
LV Synchronizing Breakers Open/Close Status					
	• LV Breakers/Switchers, Open/Close Status				
	• LV Synchronizing Breakers Open/Close Status				
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#### **PART 2: Witness Verification-Multi Disciplines**

LEGEND: Y = Yes, N = No, N/A = Not Applicable

Legend	Initial	Date	Note #	
M/d/yyyy				

Date Received

•	Witness correct operation of the HV disconnect switches/circuit switchers/breakers.		
,	Is closing time within manufacturer's specification?		
,	Is opening time within manufacturer's specification?		
,	Are the specified HV surge arrestors installed?		
•	Has the main power transformer Doble test result been approved by the customer?		
,	Are the main power transformers connected correctly as per the submitted Single Line Diagram?		
,	Is the DC system installed & available (ie battery, charger, dc panel, dc monitoring)?		
•	Is there dc separation between A & B protection groups as per DC Single Line Diagram?		
•	Are the HV disconnect switches/circuit switchers suitable as an isolation point per HydroOne Work Protection?		
•	Does the HV equipment (ie, disconnect switches, circuit switchers, breakers, CVTs CTs) have the appropriate voltage class and current ratings as per the submitted		
	Single Line Diagram?		

#### PART 3: Witness On Potential/On Load Checks at Rated System Voltage

Are phasor (X-Watt meter) readings completed and analysed by the customer for							
protection listed in PART 1?							
Are phasor (X-Watt meter) readings completed and analysed by the customer for							
SCADA quantities listed in PART 1?							

#### **PART 4: Electrical Safety**

Print Name:

		M/dd/yyyy		
•	Prior to energizing any new or modified customer or generator facilities, Electrical Safety Authority (ESA) must provide a Temporary Connection Authorization (Ontario Electrical Safety Code Article 2-014). Attach document.			
<ul> <li>Prior to final in-service of new or modified customer or generator facilities, ESA must provide Connection Authorization (Code Article 2-012). Attach document.</li> </ul>				
•	• For those entities that are exempt under the Electrical Safety Authority, provide a letter signed and stamped by a Professional Engineer registered in the province of Ontario stating that their equipment and installation meets CSA and other applicable standards, prior to Ready for Service Date. Attach document.			
Si	gnature of Hydro One Networks Agent Signature of Customer Representative			

Print Name:

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## Notes:

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<u> </u>		
	nture of Hydro One Networks Agent	Signature of Customer Representative
Print	Name:	Print Name:

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Date: \_\_\_\_\_

Date: \_\_\_\_\_