



# CONDITIONS OF SERVICE

**REVISION #19**

**Effective Date: January 1, 2020**

*Comments to these revisions can be emailed to:* [ConditionsofService@torontohydro.com](mailto:ConditionsofService@torontohydro.com)

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Toronto Hydro-Electric System Limited

PREFACE

CONDITIONS OF SERVICE

*The Distribution System Code (DSC) requires that every distributor produce its own "Conditions of Service" document. The purpose of this document is to provide a means for communicating the types and level of service available to the Customers and Consumers within Toronto Hydro's service area. The Distribution System Code requires that the Conditions of Service be readily available for review by the general public. In addition, the most recent version of the document must be provided to the Ontario Energy Board (OEB), which in turn will retain it on file for the purpose of facilitating dispute resolutions in the event that a dispute cannot be resolved between the Customer and its distributor.*

The acceptance of supply of electricity or related services from Toronto Hydro constitutes the acceptance of a binding contract with Toronto Hydro which includes these Conditions of Service and all terms thereunder. The person so accepting the supply of electricity or related services shall be liable for payment for same, and such contract shall be binding upon the person's heirs, administrators, executors, successors or assigns.

This document follows the form and general content of the Condition of Service template appended to the DSC. The template was prepared to assist distributors in developing their own "Conditions of Service" document based on current practice and the DSC. The text of the template is shown *in italics* throughout these Conditions of Service, right after each of the subheadings. The template outlines the minimum requirements. However, as suggested by the DSC, Toronto Hydro has expanded on the contents to encompass local characteristics and other specific requirements.

**Section 2 (Distribution Activities (General))** contains references to services and requirements that are common to all Customer classes. This section covers items such as Rates, Billing, Hours of Work, Emergency Response, Power Quality, Available Voltages and Metering.

**Section 3 (Customer Class Specific)** contains references to services and requirements specific to the respective Customer class. This section covers items such as Service Entrance Requirements, Delineation of Ownership, Special Contracts, etc.

Other sections include the *Glossary of Terms, Tables and References*.

Subsequent changes will be incorporated with each submission to the OEB.

A Revision Summary of the latest revisions to the Conditions of Service is posted on Toronto Hydro's website. Comments to these revisions can be emailed to [ConditionsofService@torontohydro.com](mailto:ConditionsofService@torontohydro.com). Toronto Hydro will file to the Ontario Energy Board a summary of public comments received from customers about the changes.

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# Section 1 – INTRODUCTION

## 1 INTRODUCTION

### 1.1 Identification of Distributor and Service Area

***In this section the distributor should identify its service area as defined in the Distributor's License.***

Toronto Hydro-Electric System Limited, referred to herein as “Toronto Hydro,” is a corporation incorporated under the laws of the Province of Ontario and a distributor of electricity.

Toronto Hydro is licensed by the Ontario Energy Board (“OEB”) to supply electricity to Customers as described in the Electricity Distribution License issued to Toronto Hydro on October 17, 2003 by the OEB and expiring October 16, 2023 (“Distribution License”). Additionally, there are requirements imposed on Toronto Hydro by the various codes referred to in the Distribution License and by the *Electricity Act, 1998* and the *Ontario Energy Board Act, 1998*.

Toronto Hydro may only operate distribution facilities within its Licensed Territory as defined in its Distribution License. This service area is subject to change with the OEB's approval.

Nothing contained in these Conditions of Service or in any contract for the supply of electricity by Toronto Hydro shall prejudice or affect any rights, privileges, or powers vested in Toronto Hydro by law under any Act of the Legislature of Ontario or the Parliament of Canada, or any regulations thereunder.

#### 1.1.1 Distribution Overview

Toronto Hydro distributes electrical power through 13.8 kV and 27.6 kV primary distribution systems. On the 27.6 kV system all feeders are arranged to run in an open-loop fashion with open points between adjacent feeders. These feeders supply distribution transformers either directly or through 13.8 kV or 4 kV sub-distribution systems. There are presently four types of distribution design systems at the 13.8 kV primary voltage level:

- 13.8 kV underground radial
- 13.8 kV overhead open loop
- 13.8 kV underground open-loop
- 13.8 kV underground network

The underground network system is distinct from the other systems. This low-voltage secondary network system may be available to some Customers in the downtown core of the City of Toronto as a source of supply at 120/208 V or

# Section 1 – INTRODUCTION

347/600 V, depending on the local capacity of the system and the energy requirements of the Customer.

The supply of electricity by Toronto Hydro to any Customer will be at one of the following primary voltage levels: 27.6 kV or 13.8 kV depending on the proximity of the Customer's premises to the nearest distribution facility. For connection of a Customer at 4 kV level, Toronto Hydro will carry out a special study to justify the investment. The cost of this study may be charged to the Customer.

Each type of supply is distinct and is suitable for different Customer classes and geographic areas. Toronto Hydro will determine, at its sole discretion, the Customer's type of supply based on factors that include, but are not limited to, reliability, capacity, operational and system design considerations.

## 1.2 Related Codes and Governing Laws

***This section should reference any legislation that is applicable to the distributor – Customer relationship.***

The supply of electricity or related services by Toronto Hydro to any Customer or Consumer shall be subject to various laws, regulations, and codes, including the provisions of the latest editions of the following acts, codes and licences:

- |  |                                  |
|--|----------------------------------|
| 1. <i>Electricity Act, 1998</i>          | } part of the Energy Competition |
| 2. <i>Ontario Energy Board Act, 1998</i> | } Act, 1998                      |
| 3. Distribution Licence                  |                                  |
| 4. Affiliate Relationships Code          |                                  |
| 5. Transmission System Code              |                                  |
| 6. Distribution System Code              |                                  |
| 7. Retail Settlement Code                |                                  |
| 8. Standard Supply Service Code          |                                  |

In the event of a conflict between this document and the Distribution License or regulatory codes issued by the OEB, or the Energy Competition Act, 1998 (the "Act"), the provisions of the Act, the Distribution License and associated regulatory codes shall prevail in the order of priority indicated above.

When planning and designing for electricity service, Customers and their agents must refer to all applicable provincial and Canadian electrical codes, and all other applicable federal, provincial, and municipal laws, regulations, codes and by-laws to also ensure compliance with their requirements. Without limiting the foregoing, the work shall be conducted in accordance with the latest edition of the *Ontario Occupational Health and Safety Act* (OHSA); O. Reg. 213/91: Construction Projects under the OHSA; and the Electrical Utility Safety Rules published by the Infrastructure Health and Safety Association (IHSA).



## Section 1 – INTRODUCTION

### 1.3 Interpretations

***This section should describe the rules for interpretation of the Conditions of Service document.***

In these Conditions of Service, unless the context otherwise requires:

- Headings, paragraph numbers and underlining are for convenience only and do not affect the interpretation of these Conditions of Service;
- Words referring to the singular include the plural and vice versa;
- Words referring to a gender include any gender.

### 1.4 Amendments and Changes

***This section should outline the process for making changes to this document. Include any public notice provisions.***

The provisions of these Conditions of Service in effect at the time Toronto Hydro signs the contract shall form part of any contract made between Toronto Hydro and any connected Customer, Consumer or Retailer. These Conditions of Service supercedes all previous conditions of service, oral or written, of Toronto Hydro including any of its predecessor municipal electric utilities as of its effective date.

In the event of changes to these Conditions of Service, Toronto Hydro will issue a notice with the Consumer's bill. Toronto Hydro may also issue a public notice in a local newspaper.

The Customer is responsible for contacting Toronto Hydro to obtain the current version of these Conditions of Service. Toronto Hydro may charge a reasonable fee for providing the Customer with a copy of this document. The current version of this document is also posted on the Toronto Hydro website and can be downloaded from [www.torontohydro.com](http://www.torontohydro.com).

### 1.5 Contact Information

***This section should provide information on how a Customer can contact the distributor. Include such items as:***

- ***Address of the distributor,***
- ***Telephone numbers,***
- ***Normal business hours, and***
- ***Emergency contact numbers.***

Toronto Hydro can be contacted 24 hours a day at 416-542-8000 or such other numbers as Toronto Hydro may advise through its website, invoices or otherwise. Except where otherwise noted, normal working hours are Monday to Friday

## Section 1 – INTRODUCTION

between 8:30 a.m. and 4:30 p.m. Customer Care representatives may be contacted at 416-542-8000 between 8:00 a.m. and 8:00 p.m. Monday to Friday. The mailing address is Toronto Hydro-Electric System Limited, 14 Carlton Street, Toronto Ontario M5B 1K5.

### 1.6 Customer Rights

***This section should outline the rights and obligations a Customer or embedded generator has with respect to the distributor that are not covered elsewhere in this document.***

Toronto Hydro shall only be liable to a Customer and a Customer shall only be liable to Toronto Hydro for any damages that arise directly out of the willful misconduct or negligence:

- of Toronto Hydro in providing distribution services to the Customer;
- of the Customer in being connected to Toronto Hydro's distribution system; or
- of Toronto Hydro or Customer in meeting their respective obligations under these Conditions of Service, their licences and any other applicable law.

Notwithstanding the above, neither Toronto Hydro nor the Customer 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, 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.

The Customer shall indemnify and hold harmless Toronto Hydro, its directors, officers, employees and agents from any claims made by any third parties in connection with the construction and installation of an embedded generation facility or other electrical apparatus by or on behalf of the Customer.

### 1.7 Distributor Rights

***This section should outline the rights a distributor has with respect to a Customer or embedded generator that are not covered elsewhere in this document.***

#### 1.7.1 Access to Customer Property

Toronto Hydro shall have access to Customer's property in accordance with Section 40 of the *Electricity Act, 1998*.

For further clarity, Toronto Hydro has the right to safe, secure, unobstructed, and unimpeded access to Toronto Hydro distribution equipment on, under, over or inside Customer-Owned property, twenty-four (24) hours a day seven (7) days a

## Section 1 – INTRODUCTION

week. Toronto Hydro will provide reasonable notice of entry, which under certain situations may result in no notice being provided, including:

1. during an emergency situation; or
2. when access without notification has been previously agreed upon by and arranged between Toronto Hydro and the Customer.

When access is obstructed or impeded, Toronto Hydro may at its sole discretion remove the obstruction or the impediment (e.g., removal of unauthorized locks) in order to gain access to its distribution equipment, and Toronto Hydro shall not be liable to the Customer for any damages arising as a result of the removal of the obstruction or the impediment other than physical damage to facilities arising directly from entry on the Customer's property.

### 1.7.2 Safety of Equipment

The Customer shall comply with all aspects of the Ontario Electrical Safety Code with respect to insuring that equipment is properly identified and connected for metering and operation purposes and will take whatever steps necessary to correct any deficiencies, in particular cross wiring situations, in a timely fashion. If the Customer does not take such action within a reasonable time, Toronto Hydro may disconnect the supply of electricity to the Customer.

The Customer shall not use or interfere with the facilities of Toronto Hydro except in accordance with a written agreement with Toronto Hydro. Toronto Hydro has the right to seal any point where a connection may be made on the line side of the metering equipment.

The Customer shall not build, plant or maintain or cause to be built, planted or maintained any structure or object (including but not limited to trees, shrubs, landscaping, fencing, parked vehicles, and patios) that, in the sole opinion of Toronto Hydro or other municipal or regulatory authority, would or could obstruct the running of distribution lines; endanger or impair access to Toronto Hydro's equipment; interfere with the proper and safe operation of Toronto Hydro's facilities, including the timely maintenance or response to system or equipment issues; or adversely affect compliance with any applicable legislative, regulatory or municipal requirement. Where an obstruction is discovered, Toronto Hydro will notify the Customer and provide a reasonable time for the Customer to correct any obstructions. If the Customer does not remove such obstruction within the reasonable time designated by Toronto Hydro, Toronto Hydro may disconnect the supply of electricity to the Customer and/or remove, relocate or, in the case of shrubs or other vegetation, trim such obstructions at the Customer's expense, and Toronto Hydro shall not be liable to the Customer for any damages arising as a result thereof, other than physical damage to facilities arising directly from entry on the Customer's property. Toronto Hydro's policies and procedures

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## Section 1 – INTRODUCTION

with respect to the disconnection process are further described in these Conditions of Service.

### **1.7.3 Tree and Vegetation Management**

To ensure public safety and the continued reliable operation of its distribution system Toronto Hydro will maintain clearance around its distribution lines on a cyclical or as-needed basis in close cooperation with the City's forestry department. The tree trimming cycle may vary depending on extent of storm damage, health of trees, and vegetation type.

Toronto Hydro will coordinate and maintain tree clearance around all its distribution lines that are located on the public road allowance. Toronto Hydro will also maintain tree clearance around its overhead lines over 750 Volts that may be located on private property at no cost to the Customer. Toronto Hydro will endeavour to discuss the planned re-clearing with property owners prior to work being performed in order to mitigate the impacts to the environment and the property. However, in the event of emergencies, Toronto Hydro may be unable to notify the property owner prior to performing the work.

Customers are responsible for all initial tree trimming for all new overhead lines that will be located on private property. Customers are also responsible for continuing tree trimming, tree and brush removal around service lines that are less than 750 Volts that are located on private property as well as around overhead lines over 750 Volts when these lines are owned by the Customer. Clearances must conform to the Electrical Safety Code.

To permit the safe clearance of trees and vegetation from Customer-Owned overhead lines over 750 Volts located on private property, Customers are required to contact Toronto Hydro to request and pay for the disconnection and reconnection of the electricity supply prior to performing work.

### **1.7.4 Operating Control**

The Customer shall provide a convenient and safe place, satisfactory to Toronto Hydro, for installing, maintaining and operating its equipment in, on, or about the Customer's premises or in, on, or about the public road allowance for non-metered connections. Toronto Hydro assumes no risk and will not be liable for damages resulting from the presence of its equipment on the Customer's premises or in, on, or about the public road allowance for non-metered connections, or approaches thereto, or any acts, omissions or events beyond its control, or the negligence or willful misconduct of any Persons over whom Toronto Hydro has no control.

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Unless an employee or an agent of Toronto Hydro, or other Person lawfully entitled to do so, no Person shall remove, replace, alter, repair, inspect or tamper with Toronto Hydro's equipment.

Customers will be required to pay the cost of repairs or replacement of Toronto Hydro's equipment that has been damaged or lost by the direct or indirect act or omission of the Customer or its agents.

The physical location on Customer's premises or the public road allowance for non-metered connections at which a distributor's responsibility for operational control of distribution equipment ends is defined by the Distribution System Code as the "operational demarcation point".

### **1.7.5 Customer-Owned Equipment, Infrastructure, and Property**

The Customer is responsible for providing, inspecting, maintaining, repairing and replacing, in a safe condition satisfactory to Toronto Hydro, all equipment and infrastructure that is owned by the Customer on private property or in the public road allowance for non-metered connections. Equipment and infrastructure includes but is not limited to transformers, cable, switches, poles, fences, gates, duct banks, conduits, cable chambers, cable pull rooms, transformer rooms, transformer vaults, transformer pads, tap boxes, handwells, service masts, and junction boxes.

The Customer is also responsible for maintaining its property in a condition that is safe and that does not inhibit the operation or threaten the integrity or reliability of equipment or infrastructure owned by the Customer or Toronto Hydro. The Customer's responsibility to maintain its property includes, but is not limited to, clearing vegetation, keeping storm drains clear and drainage systems fully functional, removing debris, maintaining operational and electrical clearances, and maintaining proper grading and surfaces.

The Customer shall inspect and maintain its equipment, infrastructure, and property at regular intervals. When access to the equipment, infrastructure, or property is under the control of Toronto Hydro (e.g. a transformer vault, a fenced off transformer), the Customer shall contact Toronto Hydro as per the instructions posted on Toronto Hydro's website to make appropriate arrangements (e.g. access, temporary disconnection) prior to undertaking any inspections, maintenance, repairs, or replacements.

For Customer-Owned vaults that contain Toronto Hydro equipment, Toronto Hydro will provide a Customer with one vault access every 12 months at no charge. This no charge service would be scheduled during Toronto Hydro's normal working hours, and appointment times are not necessarily guaranteed.

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Vault access at times other than during Toronto Hydro's normal working hours will be charged at cost. If Toronto Hydro staff attend to provide no charge vault access and the Customer is not present, Toronto Hydro will not provide an additional no charge vault access during the 12 month period and may charge the Customer for attending the site.

If the Customer does not inspect, maintain, repair, or replace its equipment, infrastructure, and property as required, Toronto Hydro may disconnect the supply of electricity to the Customer.

Notwithstanding the above, unless otherwise agreed to by the parties, subject to the Customer providing an easement to Toronto Hydro, Toronto Hydro will provide, maintain, repair and replace those civil infrastructure (such as poles, duct banks, conduits, cable chambers, cable pull rooms, transformer vaults, transformer pads, and switching vaults) that are required to house the primary distribution systems built along private streets that supply Customers of Multi-unit Residential developments (part of Class 3B). Effective November 15, 2004, Toronto Hydro will treat such infrastructure in the same way as those located in the public road allowance.

Where Toronto Hydro identifies, through an inspection or other activity, deficiencies relating to the equipment, infrastructure, or property owned by the Customer, such as deficiencies to walls, ceilings, floors, doors, vents, drains, electrical devices or other elements, Toronto Hydro may:

- notify the Customer of the deficiencies;
- provide a reasonable time for the Customer to correct the deficiencies; and
- if circumstances merit, request the Customer to correct the deficiency in a manner that brings the equipment, infrastructure, or property up to current standards even if the equipment, infrastructure, or property was designed, installed, or constructed to an older standard. (Examples of circumstances that may merit the application of a current standard include, but are not limited to, the existence of health or safety hazards, legal or regulatory requirements, and conditions that may impact the integrity, reliability, or operability of the distribution system or any equipment that supplies the Customer.)

If notified of deficiencies, or requested to correct deficiencies in a particular manner, the Customer shall correct the deficiencies and comply with any requests. If the Customer does not correct the deficiencies within the reasonable time, or if the corrections are not considered adequate by Toronto Hydro or an inspection authority, Toronto Hydro may disconnect the supply of electricity to the Customer or may correct the deficiencies at the Customer's expense, and Toronto Hydro shall not be liable to the Customer for any damages arising as a result of or in the course of disconnecting supply or correcting the deficiencies other than physical

## Section 1 – INTRODUCTION

damage to facilities arising directly from entry on the Customer's property. Toronto Hydro's policies and procedures with respect to the disconnection process are further described in these Conditions of Service.

Notwithstanding the above, the Customer shall be liable for any damages or losses sustained by Toronto Hydro, including damages to Toronto Hydro equipment and infrastructure that is installed either within the public road allowance or private property, resulting from:

- the operation or failure of Customer-Owned equipment,
- the Customer not adequately maintaining, repairing, or replacing their infrastructure,
- the Customer not adequately maintaining or repairing their property.

### 1.8 Disputes

***Any dispute between Customers or Retailers and the Distributor shall be settled according to the dispute resolution process specified in the Distributor Licence. In this section, the Distributor should outline the Customer Complaint and Dispute Resolution process that has been established as a condition of licence.***

If a Customer, Consumer or other market participant has a complaint about Toronto Hydro regarding services provided by Toronto Hydro under its Electricity Distribution License, the Consumer may contact Toronto Hydro's Customer Care Department by telephone at 416-542-8000 Monday to Friday from 8:00 a.m. – 8:00 p.m., or by email through the Contact section of Toronto Hydro's website ([www.torontohydro.com](http://www.torontohydro.com)), or through a fax at 416-542-3429, or in writing at:

Toronto Hydro  
Attn: Customer Care  
500 Commissioners Street  
Toronto, ON  
M4M 3N7

Upon receipt of a complaint, a Toronto Hydro Customer Care representative will contact the Customer, Consumer or other market participant to acknowledge receipt of the complaint and, if possible, to resolve the complaint. If a Customer, Consumer or other market participant is not satisfied with the resolution, they may follow the Dispute Resolution process described on Toronto Hydro's website ([www.torontohydro.com](http://www.torontohydro.com)).

## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

### 2 DISTRIBUTION ACTIVITIES (GENERAL)

*This section should include information that is applicable to all Customer classes of the distributor. Items that are applicable to only a specific Customer class are covered in Section 3.*

#### 2.1 Connections - Process and Timing

Under the terms of the Distribution System Code, Toronto Hydro has the obligation to either connect or to make an offer to connect any Customers that lie in its service area. The form of the offer and its terms and conditions may vary in accordance with Toronto Hydro's requirements for connecting a Customer to Toronto Hydro's distribution system.

The Customer or its representative shall consult with Toronto Hydro concerning the availability of supply, the supply voltage, service location, metering, and any other details. These requirements are separate from and in addition to those of the Electrical Safety Authority (ESA). Toronto Hydro will confirm, in writing, the characteristics of the electricity supply.

The Customer or its authorized representative shall apply for new or upgraded electricity services and temporary power services in writing. The Customer is required to provide Toronto Hydro with sufficient lead-time in order to ensure:

- the timely provision of electricity supply to new and upgraded premises or
- the availability of adequate capacity for additional loads to be connected in existing premises.

Toronto Hydro shall make every reasonable effort to respond promptly to a Customer's request for connection. Toronto Hydro shall respond to a Customer's written request for a Customer connection within 15 calendar days of receipt of the written request. Toronto Hydro will make an offer to connect within 60 calendar days of receipt of the written request, unless other necessary information is required from the Customer before the offer can be made.

Toronto Hydro may collect a Design Pre-payment in order to initiate and perform a design review in the preparation of an offer to connect. Upon acceptance of the offer to connect, the Design Pre-payment will be credited towards the Customer's financial obligations for the project. If the Customer does not accept Toronto Hydro's offer to connect, or if the applicant withdraws its application, or if Toronto Hydro is unable to provide an offer to connect, then Toronto Hydro may refund the Design Pre-payment less any costs incurred by Toronto Hydro.

Toronto Hydro shall make every reasonable effort to respond promptly to another distributor's request for connection. Toronto Hydro shall provide an initial consultation with another distributor regarding the connection process within thirty



## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

(30) days of receiving a written request for connection. A final offer to connect the distributor to Toronto Hydro's distribution system shall be made within ninety (90) days of receiving the written request for connection, unless other necessary information outside the distributor's control is required before the offer can be made.

If special equipment is required or equipment delivery problems occur, then longer lead times may be necessary. Toronto Hydro will notify the Customer of any extended lead times.

In addition to any other requirements in these Conditions of Service, the supply of electricity is conditional upon Toronto Hydro being permitted and able to provide such a supply, obtaining the necessary apparatus, material, and easements, and constructing works to provide the service. Should Toronto Hydro not be permitted or able to do so, it is under no responsibility to the Customer whatsoever and the Customer releases Toronto Hydro from any liability in respect thereto.

Requirements regarding Connection Agreements are set forth in Sections 2.1.7.4, 3.7, and in Section 6, Reference #3 – "Toronto Hydro Distributed Generation Requirements" for load Customer, a generator, wholesale market participant, and embedded distributor.

### 2.1.1 Building that Lies Along

***In this section, the Distributor should describe the standard connection allowance or charge used by the Distributor in its service territory, and describe any variable connection fees that would be charged beyond the standard allowance.***

***The Distributor also may stipulate in this section other terms and conditions by which a Customer requesting a Connection must abide, as long as it is within the terms of the Distribution System Code.***

For the purpose of these Conditions of Service "lies along" means a Customer property or parcel of land that is directly adjacent to or abuts onto the public road allowance where Toronto Hydro has distribution facilities of the appropriate voltage and capacity.

Under the terms of the Distribution System Code, Toronto Hydro has the obligation to connect (under Section 28 of the *Electricity Act, 1998*) a building or facility that "lies along" its distribution line, provided:

- a) the building can be connected to Toronto Hydro's distribution system without an expansion or enhancement and,
- b) the service installation meets the conditions listed in the Conditions of Service of the distributor that owns and operates the distribution line.

The location of the Customer's service entrance equipment is subject to the approval of Toronto Hydro and the Electrical Safety Authority.

## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

### 2.1.1.1 Connection Charges

Toronto Hydro shall recover costs associated with the installation of connection assets by Customer Class via Basic Connection Costs through the economic evaluation for Expansions and Variable Connection Costs, collected directly from the Customer, as applicable.

The Variable Connection Costs shall be calculated as the costs associated with the installation of Connection assets **above and beyond** the Standard Allowance for Basic Connection as described in Tables 1.1, 1.2, 1.3, and 1.4. Toronto Hydro will recover these Variable Connection Costs, which shall be based on actual cost, directly from the Customer.

### 2.1.2 Expansions / Offer to Connect

***Under the terms of the DSC, a Distributor has the Obligation to make an Offer to Connect any Building that is in the distributor's service territory that cannot be connected without an expansion, or "lies along" its distribution system, but may be denied connection for the reasons described in subsection 2.1.3 of the distributor's Conditions of Service.***

***The Offer to Connect must be fair and reasonable and be based on the distributor's design standard. The Offer to Connect also must be made within a reasonable time from the request for connection.***

***In this section, the Distributor should outline, in detail, the process followed to determine any required capital contributions. This section also should describe any fixed connection fees as well as variable connection fees, by Customer class.***

If a Customer requests to connect a new Customer load, either through a new connection or by increasing the load at an existing connection, to Toronto Hydro's distribution system, and the new load necessitates an expansion of Toronto Hydro's distribution system, then Toronto Hydro will provide Customers requesting connections that necessitate an expansion with an offer to connect for expansions ("Offer to Connect"). Toronto Hydro will perform an economic evaluation of the expansion project in accordance with the Capital Contribution policy set out in Section 2.1.2.2. The economic evaluation will determine if the forecasted future revenue ("Estimated Incremental Revenues") from the new load ("Estimated Incremental Demand") and from the Customer(s) will pay for the costs associated with the expansion. The costs associated with the expansion include but are not limited to:

- 1) the distribution system expansion capital cost "Expansion Costs";
- 2) on-going operating, maintenance and administration costs including those actually incurred and those apportioned in the manner set forth below "OM&A Costs"; and

## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

- 3) the basic cost of connection outlined in Tables 1.1, 1.2, and 1.3 “Basic Connection Costs”.

The Expansion Costs that Toronto Hydro will include in the economic evaluation are capital costs that are associated with the installation of expansion facilities and equipment on Toronto Hydro’s main distribution system. The expansion facilities and equipment will typically meet the following criteria:

- Are required to accommodate the new Customer load;
- Are not necessary to serve the needs of existing Customers and their existing loads; and
- Are designed and installed in accordance with Toronto Hydro’s planning, design, and construction standards.

For the purpose of determining OM&A Costs, Toronto Hydro will use system average operating, maintenance and administrative costs as a proxy for incremental OM&A Costs associated with the expansion facilities and apportion them as fixed costs (for Rate Class 1 and 2) or as a function of \$/kW of demand (for Rate Class 3, 4, and 5).

The Expansion Costs are in addition to any Variable Connection Costs. Refer to Table 1.1, 1.2, and 1.3 in Section 5 for each Customer Class.

For the purpose of establishing the Estimated Incremental Demand to be used in the economic evaluation, the Customer shall provide a valid estimate of the proposed new load (incremental demand) for evaluation and acceptance by Toronto Hydro. If the Customer and Toronto Hydro are unable to agree on a valid incremental demand for new Class 3, 4, and 5 Customers or in the absence of adequate billing history for existing Customers, Toronto Hydro will set the Estimated Incremental Demand to 90% of the incremental installed transformer capacity.

Using the Estimated Incremental Demand, Toronto Hydro shall then calculate the Estimated Incremental Revenues that would be received from the Customer(s) based on the new load. Toronto Hydro will use the “fixed charge” and the “variable charge” that have been approved by the Ontario Energy Board by Rate Class to determine the Estimated Incremental Revenues. For existing Customers Toronto Hydro shall apportion the “fixed charge” based on the ratio between the new (incremental) load and the combined load.

In performing the economic evaluation, should the Net Present Value (NPV) of the costs and revenues associated with the Expansion be less than zero, the Customer shall pay a capital contribution in the amount of the shortfall (i.e. the amount below zero) to Toronto Hydro. Toronto Hydro has elected to collect this shortfall from the

## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

Customer in accordance with its Capital Contribution policy as outlined in Section 2.1.2.2.

For the purposes of connecting a generator, the amount charged by Toronto Hydro to the generator to construct an expansion to connect a generation facility to the Toronto Hydro distribution system shall be equal to the generator's share of the present value of the projected capital costs and on-going maintenance costs for the equipment. Projected revenue and avoided costs from the generation facility shall be assumed to be zero, unless otherwise determined by rates approved by the Ontario Energy Board. In the case of a renewable energy generation facility, Toronto Hydro shall not charge the generator for any costs of the expansion that are at or below the renewable energy expansion costs cap for renewable energy generation facilities as set by the Ontario Energy Board.

The methodology and inputs that Toronto Hydro will use for all new load and new connection economic evaluations are presented in Appendix B of the Distribution System Code.

### 2.1.2.1 Offer to Connect & Alternative Bid Work

Toronto Hydro will provide one firm Offer to Connect to the Customer, at no expense to the Customer, for plans submitted to Toronto Hydro that necessitate an expansion to Toronto Hydro's main distribution system. If the Customer submits revised plans, Toronto Hydro may provide a new firm Offer to Connect for the revised plans at the Customer's expense.

In the Offer to Connect, Toronto Hydro will advise the Customer of any eligible work for which the Customer has the choice to obtain alternative bids from a qualified contractor. The Customer may obtain an alternative bid to construct the eligible work portions of the expansion and connection facilities:

- that do not make physical contact with Toronto Hydro's distribution system; and
- that only require work to be completed within Toronto Hydro's safe limits of approach to energized facilities or equipment,

unless otherwise directed by Toronto Hydro.

If the Customer chooses to utilize an alternative bid, the Customer shall only use qualified contractors. To qualify to undertake work that is eligible for alternative bid, contractors shall submit a "Contractor Pre-Qualification Application" (refer to Section 6) and meet the requirements no later than 30 business days prior to their selection by the Customer to undertake work that is eligible for alternative bid. To avoid delay in the start of the work that is

## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

eligible for alternative bid, the Customer shall engage a contractor that is qualified.

Toronto Hydro does not make any representation or warranty regarding any contractor selected by the Customer to do any work regardless of whether the contractor has completed the requirements set by Toronto Hydro or not and shall have no liability to the Customer in respect of such work.

Toronto Hydro will also include in the Offer to Connect or by separate document an estimate of any additional costs (“Additional Alternative Bid Costs”) that will be incurred by Toronto Hydro in the event that the Customer decides to pursue an alternative bid for the work that is eligible for alternative bid. Additional Alternative Bid Costs may include, but are not limited to, the following:

- costs for additional design, engineering, or installation of facilities required to complete the project;
- costs associated with any temporary de-energization of any portion of the existing distribution system that is required in relation to an expansion that is constructed under the alternative bid option;
- costs associated to review and approve the plans for the design, engineering, layout, and work execution for the work that is eligible for alternative bid to ensure conformance to Toronto Hydro’s distribution system planning standards and specifications prior to commencing that work;
- costs for administering the contract between the Customer and the contractor hired by the Customer if Toronto Hydro is asked to administer the contract by the Customer and Toronto Hydro agrees to administer the contract; and
- costs for inspection or approval by Toronto Hydro of the work performed by the contractor hired by the Customer.

Within sixty (60) days of receiving the Offer to Connect, the Customer shall return a signed copy of the Offer to Connect indicating the Customer has accepted the offer, and whether the Customer is electing to pursue an alternative bid. After sixty (60) days, if the Customer has not accepted the Offer to Connect in writing, Toronto Hydro may revoke the Offer to Connect without providing any notification to the Customer.

If the Customer decides to pursue an alternative bid, the Customer and his qualified contractor shall only use materials that meet the same specifications as Toronto Hydro approved materials (i.e. same manufacturers and same part numbers). Once the Customer has hired a qualified contractor, the Customer may request, and if requested, Toronto Hydro shall provide the listing of approved materials that may be required for the alternative bid work.

## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

Upon accepting an Offer to Connect, regardless of whether the Customer will be pursuing an alternative bid or not, the Customer shall provide Toronto Hydro the payables (e.g. costs) and security amounts (e.g. deposits) as required and stipulated in the Offer to Connect.

### 2.1.2.2 Capital Contribution Policy

The capital contribution policy elected by Toronto Hydro shall be consistent with the policy outlined below for each Customer Class:

**Class 1 – Residential Single Service:** No Transformation required on private property

- Overhead or Underground: *Capital contribution **not** collected from Customer*

**Class 2 - General Service, (Below 50 kW):** No Transformation required on private property

- Overhead or Underground: *Capital contribution **not** collected from Customer*

**Class 3 - General Service (50 kW – 999 kW):** Capital contribution collected from Customer

**Class 4 - General Service (1000 kW – 4999 kW):** Capital contribution collected from Customer

**Class 5 – Large User (5000 kW and above):** Capital contribution collected from Customer

For the purpose of determining the amount of Capital Contribution payable by a Customer the following clarification and exception shall apply:

- Condominium apartments and apartment buildings that have a demand less than 1,000 kW are part of Class 3A General Services
- Condominium townhouse units intended to remain in private property are part of Class 3B General Service
- Townhouse units built (or intended to be) fronting public road allowances are part of Class 3C “Residential Subdivision”
- Townhouse units built as “freehold” (i.e. on property owned by the individual townhouse owner) are part of Class 3C “Residential Subdivision”
- Low-rise residential developments involving more than 5 lots regardless of demand are classified as Class 3C “Residential Subdivision”.

## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

However, notwithstanding the treatment of capital contribution, Toronto Hydro shall in all cases calculate the “Estimated Incremental Revenues” of new Customers using the “fixed charge” and the “variable charge” that have been approved by the Ontario Energy Board for the Rate Class applicable to each individual new meter installed in connection with the expansion project.

To determine the amount of Capital Contribution required from a Class 3, 4, or 5 Customer for an expansion project, Toronto Hydro will perform an economic evaluation by inputting the project specific information together with a set of standardized assumptions and specific annual parameters into a proprietary “Business Economic Model” developed for Toronto Hydro in accordance with the methodology and inputs outlined in Appendix B of the Distribution System Code (“Economic Evaluation”).

Where Toronto Hydro is required to provide a capital contribution to a transmitter for a new or modified transmitter-owned connection facility, and the new or modified transmitter-owned connection facility meets the needs of an embedded distributor and/or a load Customer with a non-coincident peak demand that is equal to or greater than 5 MW, Toronto Hydro shall require a capital contribution from all beneficiaries that contributed to the need for the new or modified transmitter-owned connection facility. A transmitter shall calculate the amount of capital contribution for each of those beneficiaries using the methodology set out in the Transmission System Code.

Where an expansion involves an upstream transmission asset that has been deemed by the Board to be a Toronto Hydro asset, a capital contribution associated with this portion of an expansion is not required from a load Customer with a non-coincident peak demand of less than 5 MW.

### **2.1.2.2.1 Offer to Connect – Content & Process**

Based on the output of its Economic Evaluation, Toronto Hydro will set out in the Offer to Connect the following, as applicable:

- (a) Whether the offer is a firm offer or an estimate of costs that would be revised in the final payment to reflect actual costs incurred;
- (b) the amount of the capital contribution;
- (c) the calculation used to determine the amount of the capital contribution including all of the assumptions and inputs used to produce the economic evaluation;
- (d) a statement as to whether the offer includes work for which the Customer may obtain an alternative bid, and, if so, the process by which the Customer may obtain the alternative bid;
- (e) a description of, and costs for, the work that is eligible for alternative

## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

bid and the work that is not eligible for alternative bid associated with the expansion broken down into the following categories:

- (i) labour (including design, engineering and construction);
- (ii) materials;
- (iii) equipment; and
- (iv) overhead costs (including administration);
- (f) the amount for any Additional Alternative Bid Costs;
- (g) the amount for the basic cost of connection; and
- (h) the expansion deposit amount.

If there is a conflict between an Offer to Connect and these Conditions of Service, the Offer to Connect shall govern.

### **2.1.2.2.2 Transfer Price for Work that is Eligible for Alternative Bid**

The transfer price for the expansion work that is eligible for alternative bid shall be the lower of the cost to the Customer (“Customer’s Cost”) to construct the expansion facilities or the amount set out in the initial Offer to Connect to do the expansion work that is eligible for alternative bid. The Customer’s Cost shall mean:

- (a) The costs the Customer paid to have the eligible alternative bid expansion work performed, as supported by evidence satisfactory to Toronto Hydro; and
- (b) Any costs incurred by Toronto Hydro and charged to the Customer as a result of the Customer selecting to perform expansion work using an alternative bid.

For greater clarity, the cost referred to in (a) does not include any costs associated with completing connection work as identified in the Offer to Connect.

If the Customer does not provide the cost to construct the expansion facilities as referred to in (a), to Toronto Hydro within 30 days of the expansion facilities being energized, then the amount of the transfer price shall be the amount set out in the initial Offer to Connect to do expansion the work that is eligible for alternative bid.

Toronto Hydro will assume ownership of the facilities as of the date that the facilities were energized unless otherwise specified in the Offer to Connect.



## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

### 2.1.2.2.3 Alternative Bid Final Economic Evaluation & Capital Contribution Settlement

If the Offer to Connect is a firm offer and the Customer has exercised the alternative bid option, Toronto Hydro will carry out a final Economic Evaluation once the expansion facilities are energized. The final Economic Evaluation will be based on the amounts used in the firm offer for costs and forecasted revenues, plus any transfer price to be paid to the Customer. If the required capital contribution amount from the final Economic Evaluation (“Final Capital Contribution”) differs from the required capital contribution amount from the initial Economic Evaluation (“Initial Capital Contribution”), the Customer will be responsible for the Final Capital Contribution and not the Initial Capital Contribution. Toronto Hydro and the Customer shall arrange to settle any amounts owing as necessary, including by way of set off.

Toronto Hydro will provide the Customer with the calculation used to determine the final capital contribution amount including all of the assumptions and inputs used to produce the final Economic Evaluation at no cost to the Customer.

### 2.1.2.3 Expansion Deposit

As noted above, an expansion to Toronto Hydro’s distribution system results in Expansion Costs and OM&A Costs. Given that the capital contribution that the Customer shall pay to Toronto Hydro may not fully offset these costs for Toronto Hydro, Toronto Hydro may require the Customer to provide an expansion deposit in addition to the capital contribution. The expansion deposit is intended to hold Toronto Hydro harmless with respect to the expansion.

For Class 3, 4, and 5 Customers an Offer to Connect may require the Customers to provide an expansion deposit to cover the difference between the costs associated with the expansion as outlined in Section 2.1.2 and the amount of the capital contribution paid by the Customer, in accordance with Toronto Hydro’s Economic Evaluation of the expansion.

Toronto Hydro will require the Customer to provide the expansion deposit, as contained in the Offer to Connect, prior to the commencement of any expansion work or the installation of any connection assets.

Where a Customer intends to exercise the alternative bid option, Toronto Hydro may require the Customer to post an expansion deposit in an amount equal to the costs for the expansion work that is ineligible for alternative bid (collectively the “Initial Expansion Deposit”), prior to the commencement of

## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

any expansion work or the installation of any connection assets. Once the expansion facilities are energized, and Toronto Hydro has conducted a final Economic Evaluation and determined a final capital contribution amount, Toronto Hydro may require the Customer to post an additional deposit to be added to the Initial Expansion Deposit such that the total expansion deposit, made up of the initial expansion deposit and the additional deposit (collectively the “Total Expansion Deposit”), is equal to the difference between the costs associated with the expansion as outlined in Section 2.1.2, including the transfer price, and the amount of the final capital contribution.

Toronto Hydro may retain or realize on any expansion deposit from the Customer for the purposes of covering any amounts that the Customer owes to Toronto Hydro pursuant to the Offer to Connect. These amounts may include an outstanding capital contribution, and the costs associated with completing, repairing, or bringing up to standard the expansion facilities (e.g. bringing expansion facilities up to proper design and technical specifications; ensuring that facilities operate properly when energized).

In addition, for Customers that exercise the alternative bid option, Toronto Hydro shall retain 10% of the Total Expansion Deposit, for a warranty period of up to two years and may apply such deposit to any work required to repair the expansion facilities within the two-year warranty period. At the end of the warranty period, Toronto Hydro shall return to the Customer the unused portion of the Total Expansion Deposit that was retained for the warranty period.

The two-year warranty period begins at the end of the Realization Period. The Realization Period for a project ends:

- For residential developments, upon the first to occur of the materialization of the last forecasted connection in the expansion project, or five (5) years after energization of the expansion facilities,
- For commercial and industrial developments, upon the first to occur of the materialization of the last forecasted demand, or five (5) years after energization of the expansion facilities, or
- For residential developments combined with commercial or industrial developments, upon the first to occur of the materialization of both the last forecasted connection and the last forecasted demand, or five (5) years after energization of the expansion facilities.

Any expansion deposit must be either in the form of (i) cash or (ii) an irrevocable commercial letter of credit issued by a Schedule I bank as defined in the *Bank Act*, or (iii) surety bond, but the form of deposit must expressly provide for its use to cover the events for which it is held as a deposit.

## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

Except for the warranty portion of the Total Expansion Deposit which shall be retained for the duration of the warranty period, once the facilities are energized, Toronto Hydro shall reduce any expansion deposit amount at the end of each 365-day period as specified in the Offer to Connect.

The amount of the reduction at the end of each 365-day period is calculated by multiplying any expansion deposit by a percentage, less any portion that Toronto Hydro has retained or realized. The percentage is derived by dividing the actual connections (for residential developments) or actual demand (for commercial and industrial developments) completed or materialized in that 365-day period, incremental to any connections completed or demand that materialized in any previous 365-day period, by the total number of connections (for residential developments) or actual demand (for commercial and industrial developments) contemplated in the Offer to Connect. (For example, if twenty percent of the forecasted connections or demand materialized in a year, and Toronto Hydro has not retained or realized any portion of any expansion deposit in accordance with the Offer to Connect, then Toronto Hydro will return to the Customer twenty percent of the expansion deposit.)

However, if after five (5) years from the energization date of the expansion facilities the total number of connections (for residential developments) or the actual demand (for commercial and industrial developments) contemplated by the Offer to Connect have not materialized, Toronto Hydro shall retain any cash held as an expansion deposit, or be entitled to realize on any letter of credit or bond held as an expansion deposit and retain any cash resulting therefrom, with no obligation to return any portion of such monies to the Customer at any time.

If the Customer has provided any expansion deposit in the form of cash, any portion of any expansion deposit held as cash returned to the Customer shall include interest on the returned amount from the date of receipt of the full amount of the expansion deposit at the Prime Business Rate set by the Bank of Canada less 2 percent.

### **2.1.2.4 Supply Agreement**

Class 3, 4 and 5 Customers may be required to enter into a Supply Agreement with Toronto Hydro to clarify the responsibilities of each party pertaining to the construction and maintenance of the expansion and or connection assets.

### **2.1.2.5 Rebates of Capital Contribution**

As noted above, when a new Customer connection or the addition of new load necessitates an expansion to Toronto Hydro's distribution system, Toronto Hydro conducts an economic evaluation. The economic evaluation considers

## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

costs associated with the expansion and forecasts revenues that the expansion will enable. If, within five (5) years of the energization of the expansion facilities, a subsequent Customer:

- connects new load to Toronto Hydro’s distribution system;
- derives a benefit from the expansion facilities;
- the new load had not been forecasted and not included in the economic evaluation; and
- the subsequent Customer is a Class 3, 4, or 5 Customer,

then the subsequent Customer (“Unforecasted Customer”) shall contribute a fair share of the cost that was incurred to construct the expansion. In such a case, Toronto Hydro shall collect the fair share from the Unforecasted Customer and shall provide that share as a rebate to the initial contributor (i.e. the Customer that initially paid the required capital contribution) to the expansion.

The amount of the fair share of the Unforecasted Customer, and therefore the amount of the rebate to the capital contribution of the initial contributor(s), will be determined by Toronto Hydro by apportioning the overall benefits associated with the expansion between the Unforecasted Customer and the initial (or previous) contributor(s). If applicable, Toronto Hydro may consider any or all of the following factors when apportioning the overall benefits:

- (a) the relative name-plate rated capacity of the connections;
- (b) the relative non-coincident peak demand;
- (c) the line length that the Unforecasted Customer requires in comparison to the line length that the initial contributor(s) requires in the context of the expansion;
- (d) the proportion of the five (5) year period of time after the energization date of the expansion that the Unforecasted Customer will be connected to the Toronto Hydro distribution system; and
- (e) any other factor that Toronto Hydro, in its sole discretion, considers to be relevant to the determination.

### 2.1.2.6 Feeder Capacity Optimization

Toronto Hydro will provide service to the Customer during the Realization Period based upon the Estimated Incremental Demand indicated in the Offer to Connect that has been signed by the Customer. However, unused capacity will not be reserved past the Realization Period.

After the Realization Period Toronto Hydro reserves the right to examine the Customer’s peak demand with a view to optimizing its feeder capacity. If the

## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

actual peak demand is lower than the Estimated Incremental Demand, then Toronto Hydro will adjust downwards its internal peak demand forecast and may re-assign any unused capacity if it determines this is appropriate to meet other demand needs.

After the Realization Period the Customer shall obtain the consent of Toronto Hydro prior to effecting any substantial increase its peak demand, regardless of the Estimated Incremental Demand set forth in the Offer to Connect, or through past demand history.

### 2.1.2.7 Bypass Compensation

Toronto Hydro shall require bypass compensation from a Customer, with a non-coincident peak demand that meets or exceeds 5 MW, if:

- (a) the Customer disconnects its load facility from Toronto Hydro's distribution system and connects that facility to a generation facility (excluding embedded renewable generation) or to another load facility that is not owned by Toronto Hydro such that Toronto Hydro will no longer receive rate revenues in relation to that disconnected facility; or
- (b) the Customer, while retaining its connection to Toronto Hydro's distribution system, also connects its load facility to a generation facility (excluding embedded renewable generation) or to another load facility that is not owned by Toronto Hydro such that the Customer reduces its load served directly by Toronto Hydro's distribution system, and Toronto Hydro's rate revenues in relation to that facility will be reduced.

Toronto Hydro shall calculate bypass compensation using the methodology set out in the Distribution System Code.

### 2.1.3 Connection Denial

***The DSC sets out the conditions for a Distributor to deny connections. The DSC lists reasons for which a Building that "lies along" a distribution line may be refused connection to that line. This section should describe reasons why a distributor may not be obligated to connect the Customer and provide additional details, where relevant, about specific conditions that may result in a refused connection in accordance with the DSC. For example, the criteria for establishing an unsafe connection or a connection, which adversely affects the system, should be further documented within the Conditions of Service.***

The Distribution System Code provides for the ability of a Distributor to deny connections. Toronto Hydro is not obligated to connect a Customer within its service area if the connection would result in any of the following:

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- Contravention of existing laws of Canada or the Province of Ontario, including the Ontario Electrical Safety Code
- Violations of conditions in Toronto Hydro's Licence
- Use of a Toronto Hydro distribution system line for a purpose that it does not serve and that Toronto Hydro does not intend to serve
- Adverse affect on the reliability or safety of Toronto Hydro's distribution system
- Public safety reasons or imposition of an unsafe work situation beyond normal risks inherent in the operation of Toronto Hydro's distribution system
- A material decrease in the efficiency of the Toronto Hydro's distribution system
- A materially adverse effect on the quality of distribution services received by an existing connection
- If the person requesting the connection owes Toronto Hydro money for distribution services
- Potential increases in monetary amounts that already are in arrears with Toronto Hydro
- If an electrical connection to Toronto Hydro's distribution system does not meet Toronto Hydro's design requirements
- Any other conditions documented in Toronto Hydro's Conditions of Service.

If Toronto Hydro refuses to connect a Customer in its service area that lies along one of its distribution lines, Toronto Hydro shall inform the person requesting the connection of the reasons for the denial, and where Toronto Hydro is able to provide a remedy, make an Offer to Connect in accordance with Section 2.1.2 of these Conditions of Service. If Toronto Hydro is not capable of resolving the issue, it is the responsibility of the Customer to do so before a connection can be made.

### 2.1.4 Inspections Before Connections

***In this section, the Distributor should state the requirement for inspection by the Electrical Safety Authority prior to the commencement of electricity supply.***

All Customer electrical installations shall be inspected and approved by the Electrical Safety Authority (ESA) and must also meet Toronto Hydro's requirements. Toronto Hydro requires notification from the ESA of this approval prior to the energization of a Customer's supply of electricity. Where a "Connection Authorization" from the ESA has been issued to Toronto Hydro, it is valid for the connection of a service for a period of up to six (6) months from the date of issue. If the connection of service has not been completed after six (6) months, a new "Connection Authorization" is required. Services that have been disconnected for a period of six (6) months or longer must also be re-inspected and approved by the ESA, prior to reconnection.

Temporary services, typically used for construction purposes and for a period of

## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

twelve months or less, must be inspected and approved by the ESA. The temporary service may be re-inspected by the ESA should the period of use exceed six (6) months.

Customer-Owned substations must be inspected by both the ESA and Toronto Hydro.

Transformer rooms shall be inspected and approved by Toronto Hydro prior to the installation of Toronto Hydro's equipment.

Duct banks shall be inspected and approved by Toronto Hydro prior to the pouring of concrete and again before backfilling. A mandrel shall be used to clear all extraneous material from completed ducts and a site contractor shall perform this work in the presence of a Toronto Hydro inspector. A mandrel, approved by Toronto Hydro for a nominal diameter of duct, will be passed through each duct. In the event of ducts blocked by ice, the owner's representative will be responsible for clearing the ducts prior to the cable installation. Connection to existing concrete duct banks or cable chamber shall be done only by a contractor approved by Toronto Hydro. All work done on existing Toronto Hydro's plant must be authorized by Toronto Hydro and carried out in accordance with all applicable safety acts and regulations.

Provision for metering shall be inspected and approved by Toronto Hydro prior to energization.

### 2.1.5 Relocation of Plant

***This section should specify the distributor's policy with respect to requests for relocation of plant and the conditions under which the requestor is or may be required to pay for the relocation of plant should be specified. Sharing arrangements also should be noted.***

When requested to relocate distribution plant, Toronto Hydro will exercise its rights and discharge its obligations in accordance with existing acts, by-laws and regulations including the *Public Service Works on Highways Act*, agreements, easements and law. In the absence of existing agreements, Toronto Hydro is not obligated to relocate the plant. However, Toronto Hydro shall resolve the issue in a fair and reasonable manner. Resolution in a fair and reasonable manner shall include consideration of the impact of the proposed relocation on the other Customers of Toronto Hydro. The response to the requesting party shall explain the feasibility or unfeasibility of the relocation and a fair and reasonable charge for relocation based on cost recovery principles.

The Customer shall contact Toronto Hydro prior to undertaking work that may result in an encroachment on Toronto Hydro plant.

## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

If a Customer proposes to:

- a) alter existing buildings, structures or apparatus; or
- b) construct new buildings, structures or apparatus

that may result in an encroachment on the electrical and working clearances required by Toronto Hydro for the existing Toronto Hydro distribution plant, the Customer shall:

- 1) Notify Toronto Hydro and request that Toronto Hydro determine in a fair and reasonable manner whether the relocation of the existing distribution plant is acceptable;
- 2) If, in Toronto Hydro's discretion a Coordination Agreement is required, enter into an agreement with Toronto Hydro to execute the relocation; and
- 3) Pay for the relocation costs incurred by Toronto Hydro to have the required Toronto Hydro distribution plant relocated, based on the Coordination Agreement, if applicable, or cost recovery principles.

If a Customer encroaches upon the electrical and working clearances set by Toronto Hydro, Toronto Hydro shall determine in a fair and reasonable manner whether the Customer shall be required to remove the encroachment at its own expense, or shall pay, based on cost recovery for work required, the costs incurred by Toronto Hydro to have the required distribution plant relocated.

Toronto Hydro may collect a Design Pre-payment from the Customer in order to initiate design activities in the preparation of a job-quotation for distribution plant relocation works. Upon acceptance of the job-quotation, the Design Pre-payment will be credited towards the Customer's financial obligations for the relocation work. If the Customer does not accept Toronto Hydro's job-quotation, or if the Customer withdraws its application, or if Toronto Hydro is unable to provide a job-quotation, then Toronto Hydro may refund the Design Pre-payment less any costs incurred by Toronto Hydro.

In the course of maintaining and enhancing Toronto Hydro's distribution plant, Toronto Hydro may need to relocate distribution plant that is owned by Toronto Hydro. Costs associated with such relocation(s) shall be borne by Toronto Hydro, except that, in accordance with Section 3.2(g) hereof, if the Customer requests that such maintenance or construction activities be done outside Toronto Hydro's normal working hours, the Customer may be required to pay for any incremental costs incurred by Toronto Hydro as a result thereof.



## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

### 2.1.6 Easements

*In this section, any requirements for easements should be described.*

To maintain the reliability, integrity and efficiency of the distribution system, Toronto Hydro has the right to have supply facilities on private property and to have easements registered against title to the property. Easements are required where facilities serve property other than property where the facilities are located and/or where Toronto Hydro deems it necessary.

The Customer will prepare at its own cost any required reference plan to the satisfaction of Toronto Hydro. Easement documents are prepared by the Toronto Hydro Legal Services Department. Four copies of the deposited reference plan must be supplied to Toronto Hydro prior to the preparation of the easement documents. Details will be provided upon application for service.

### 2.1.7 Contracts

*This section should outline the types of contracts that are available for each type of Customer, including standard, implied and special contracts. Connection agreements and operating agreements should be listed and referenced as appendices to the Conditions of Service, if applicable.*

#### 2.1.7.1 Contract for New or Modified Electricity Service

Toronto Hydro shall only connect a Customer for a new or modified supply of electricity upon receipt by Toronto Hydro of the following:

- a completed and signed contract for service in a form acceptable to Toronto Hydro;
- payment to Toronto Hydro of any applicable connection fee;
- an inspection and approval by the Electrical Safety Authority of the electrical equipment for the new service; and
- a Connection Agreement as requested or required pursuant to Section 2.1.7.4.

#### 2.1.7.2 Implied Contract

In all cases, notwithstanding the absence of a written contract, Toronto Hydro has an implied contract with any Customer that is connected to Toronto Hydro's distribution system and receives distribution services from Toronto Hydro. The terms of the implied contract are embedded in Toronto Hydro's Conditions of Service, the Rate Handbook, Toronto Hydro's rate schedules, Toronto Hydro's licence, the Distribution System Code, the Standard Supply Service Code and the Retail Settlement Code, all as amended from time to time.

## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

The acceptance of supply of electricity or related services from Toronto Hydro constitutes a binding contract with Toronto Hydro, which includes these Conditions of Service and all terms thereunder. The person so accepting the supply of electricity or related services shall be liable for payment for same, and such contract shall be binding upon such person's heirs, administrators, executors, successors or assigns.

### 2.1.7.3 Special Contracts

Special contracts that are customized in accordance with the service requested by the Customer normally include, but are not necessarily limited to, the following examples:

- construction sites
- mobile facilities
- non-permanent structures
- special occasions, etc.
- embedded generation facilities

### 2.1.7.4 Connection Agreements

Toronto Hydro may require a Customer to enter into a Connection Agreement in a form acceptable to Toronto Hydro. Until such time as the Customer executes such a Connection Agreement with Toronto Hydro, the Customer shall be deemed to have accepted and agreed to be bound by all of the terms in the Connection Agreement attached to this as Schedule A in Section 6.

A Generator, and a Wholesale Market Participant shall enter into a Connection Agreement as per Section 6, Reference #3 – “Toronto Hydro Distributed Generation Requirements”.

An embedded distributor shall enter into a Connection Agreement in a form acceptable to Toronto Hydro. Until such time as the embedded distributor executes such a Connection Agreement with Toronto Hydro, the embedded distributor shall be deemed to have accepted and agreed to be bound by all of the terms in these Conditions of Service that apply to such embedded distributor.

Toronto Hydro shall make a good faith effort to enter into a Connection Agreement with a distributor connected to Toronto Hydro's distribution system in accordance with the requirements in the Distribution System Code issued by the Ontario Energy Board.

## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

If there is a conflict between a Connection Agreement with a Customer, generator, wholesale market participant or embedded distributor and this Conditions of Service, the Connection Agreement shall govern.

### 2.1.7.5 Payment by Building Owner

The owner of a Building is responsible for paying for the supply of electricity by Toronto Hydro to the owner's Building except for any supply of electricity to the Building by Toronto Hydro in accordance with a request for electricity by an occupant(s) of the Building.

A Building owner wishing to terminate the supply of electricity to its Building must notify Toronto Hydro in writing. Until Toronto Hydro receives such written notice from the Building owner or its authorized representative, the Building owner and/or the occupant(s), as applicable, shall be responsible for payment to Toronto Hydro for the supply of electricity to such Building. Toronto Hydro may refuse to terminate the supply of electricity to an owner's Building when there are occupant(s) in the Building (i.e. during certain periods of the winter).

Effective April 1, 2011, after closure of an account opened pursuant to a request, directly or indirectly, from an occupant of the property other than the owner or its authorized representative, Toronto Hydro shall not seek to recover any charges for service provided to a rental unit in a residential complex or residential property from the owner of the residential complex or residential property, unless the owner has agreed to assume responsibility for those charges. An owner, either personally or through an authorized representative, may enter into an agreement with Toronto Hydro whereby the owner agrees to assume responsibility for paying for continued service to the rental unit after closure of an occupant account. Where the owner has not agreed to assume responsibility for charges for continued service, Toronto Hydro may disconnect the service without notice. Toronto Hydro will not be responsible for any liabilities or damages, which may occur as a result of the service being disconnected.

Where a non-residential property has been vacated by an occupant of the property, and Toronto Hydro has not been notified that a new occupant should be billed for the electricity supplied to the property and the owner has not submitted a written request to disconnect the electricity supply, Toronto Hydro will bill the owner for the electricity supply to the property until such time as Toronto Hydro is notified by the owner or a new occupant that the occupant should be billed for the electricity supply.

## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

### 2.1.7.6 Opening and Closing of Accounts

A Consumer who wishes to open or close an account for the supply of electricity by Toronto Hydro shall contact Toronto Hydro's Call Centre by phone, by written request (including requests submitted by facsimile), through Toronto Hydro's web site, or other means acceptable to Toronto Hydro.

The Consumer shall be responsible for payment to Toronto Hydro for the supply of electricity to the property up to the date Toronto Hydro is notified of the termination of the account.

## 2.2 Disconnection

***In this section, the Distributor should specify under what circumstances it has the right or obligation to disconnect a Customer. This section also should outline the business processes used by the distributor, including notification and timing provisions.***

Toronto Hydro reserves the right to disconnect service for reasons not limited to:

- Contravention of the laws of Canada or the Province of Ontario, including the Ontario's Electrical Safety Code.
- A material adverse effect on the reliability and safety of Toronto Hydro's distribution system.
- Imposition of an unsafe worker situation beyond normal risks inherent in the operation of Toronto Hydro's distribution system.
- A material decrease in the efficiency of Toronto Hydro's distribution system.
- A materially adverse effect on the quality of distribution services received by an existing connection.
- Inability of Toronto Hydro to perform planned inspections and maintenance.
- Failure of the Consumer or Customer to comply with a directive of Toronto Hydro that Toronto Hydro makes for purposes of meeting its licence obligations.
- Overdue amounts payable to Toronto Hydro including the non-payment of a security deposit.
- Electrical disturbance propagation caused by Customer equipment that is not corrected in a timely fashion.
- Any other conditions identified in these Conditions of Service.

Toronto Hydro may disconnect the supply of electricity without notice in accordance with the following conditions, and as stated in Sections 2.1.7.5 and 2.2.2 in these Conditions of Service:

- pursuant to a court order;
- for emergency or safety reasons;
- for system reliability reasons;

## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

- a Customer intentionally avoids bill payments by applying or re-applying for a new account under a different account-holder name, or otherwise acts fraudulently;
- a Customer who has been disconnected has self-reconnected; or
- pursuant to an order of the Electrical Safety Authority.

A Customer intending to demolish any buildings that house Toronto Hydro's distribution equipment shall notify Toronto Hydro at least four (4) months in advance of demolition. The Customer shall pay Toronto Hydro for the costs of removing all electrical equipment owned by Toronto Hydro that is located on private property. Provided the Customer has made all necessary arrangements, including payment of any outstanding arrears, Toronto Hydro shall remove all its equipment by the date agreed to with the Customer.

### 2.2.1 Disconnection & Reconnection – Process and Charges

Immediately following the due date, steps will be taken to collect the full amount of the electricity bill. If the bill is still unpaid sixteen calendar days after the due date and ten calendar days after a disconnect notice has been received by the Customer, the service may be disconnected and not restored, or a Timed Load Interrupter Device may be installed, until payment arrangements satisfactory to Toronto Hydro have been made, including any costs of reconnection. Such discontinuance or restriction of service does not relieve the Customer of the liability for arrears or other applicable charges for the balance of the term of contract, nor shall Toronto Hydro be liable for any damage to the Customer's premises resulting from such discontinuance or restriction of service, other than physical damage to facilities arising directly from entry on the Customer's property. Disconnect notices will be in writing and if given by mail shall be deemed to be received on the third business day after the date on which the notice was printed.

Notwithstanding the foregoing, Toronto Hydro shall not shut off the supply of electricity to a property for non-payment during such periods as may be prescribed by regulations under the *Electricity Act*, 1998, or to an occupied residential property for non-payment during the Disconnection Ban Period in accordance with the Distribution System Code. Upon discovery that a hazardous condition or disturbance propagation (feedback) exists, Toronto Hydro will notify the Customer to rectify the condition at once. If the Customer fails to make satisfactory arrangements to remedy the condition within a reasonable period after a disconnect notice has been given to the Customer, the service may be disconnected and not restored until satisfactory arrangements to remedy the condition have been made. Toronto Hydro shall not be liable for any damage to the Customer's premises resulting from such discontinuance of service, except for physical damage to facilities arising directly from Toronto Hydro's entry on the Customer's property.

## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

Notwithstanding the above, in the case of a residential Customer that has provided Toronto Hydro with documentation from a physician confirming that disconnection poses a risk of significant adverse effects on the physical health of the Customer or on the physical health of the Customer's spouse, or dependent family member or other person that regularly resides with the Customer, shall not be disconnected for non-payment until 60 days from the date on which the disconnection notice is delivered.

At the request of a residential Customer, Toronto Hydro shall send a copy of any disconnection notice issued to the Customer for non-payment to a third party designated by the Customer for that purpose provided that the request is made no later than the last day of the applicable minimum notice period. As well, residential Customers may at any time prior to disconnection, designate a third party to also receive any future notice of disconnection.

Upon receipt of a connection termination request by the Customer, Toronto Hydro will disconnect and/or remove Toronto Hydro's connection assets at the Customer's cost as outlined in Table 2 in Section 5 of these Conditions of Service.

When a Customer requests a disconnection and a reconnection of its supply of electricity then the Customer shall pay a fair and reasonable charge based on cost recovery principles or pay the applicable fees in accordance with the charges presented in the Standard Service Charges listing, as available on Toronto Hydro's website.

Prior to working near Toronto Hydro's overhead conductors, Customers shall contact Toronto Hydro to determine if a disconnection of electricity is required. Toronto Hydro will provide a disconnection and reconnection for a fee as outlined above.

Where Toronto Hydro installs a Timed Load Interrupter Device or disconnects a Customer for non-payment, Toronto Hydro will provide to the Customer (i) the Fire Safety Notice of the Office of the Fire Marshal; (ii) any other public safety notices or information bulletins issued by public safety authorities and provided to Toronto Hydro, which provide information to consumers respecting dangers associated with the disconnection of electricity service, and when applicable, (iii) written notice to the Customer explaining the effect of a Timed Load Interrupter Device on service, along with a telephone number for the Customer to obtain further information.

Where a Timed Load Interrupter Device is installed or a service is disconnected by Toronto Hydro for non-payment, Toronto Hydro will remove the Timed Load Interrupter Device or reconnect the service within 2 business days of the outstanding account balance being paid in full or the Customer entering into an arrears payment agreement. A Customer may request the continued use of the Timed Load Interrupter Device during the course of the arrears payment agreement.

## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

### 2.2.2 Unauthorized Energy Use

Notwithstanding the provisions of Section 2.1.7.2 (Implied Contract) and Section 2.1.7.5 (Payment by Building Owner), Toronto Hydro reserves the right to disconnect the supply of electricity to a building or property where the building or property has, or appears to have, been used for unlawful purposes, including energy diversion or theft of power. The supply of electricity to the building or property may not be reconnected for the existing Customer until Toronto Hydro receives full payment from the existing customer of all reasonable costs and losses incurred by Toronto Hydro arising from the unauthorized energy use, including costs of inspections, repair costs, commodity costs, disconnection costs, and reconnection costs. If other than the existing customer requests reconnection, Toronto Hydro may recover any reconnection charges approved by the Ontario Energy Board.

### 2.3 Conveyance of Electricity

#### 2.3.1 Limitations on the Guaranty of Supply

***In this section, the Distributor should specify its limitations on the guaranty of supply. The Distributor also should reference the provisions for “Powers of Entry” described in section 40 of the Electricity Act, 1998.***

Toronto Hydro will endeavour to use reasonable diligence in providing a regular and uninterrupted supply of electricity but does not guarantee a constant supply or the maintenance of unvaried frequency or voltage and will not be liable in damages to the Consumer or Customer by reason of any failure in respect thereof.

Consumers or Customers requiring a higher degree of security than that of normal electricity supply are responsible to provide their own back-up or standby facilities. Consumers or Customers may require special protective equipment at their premises to minimize the effect of momentary power interruptions.

Customers requiring a three-phase supply should install protective apparatus to avoid damage to their equipment, which may be caused by the interruption of one phase, or non-simultaneous switching of phases of Toronto Hydro’s electricity supply.

During an emergency, Toronto Hydro may interrupt supply to a Consumer in response to a shortage of supply of electricity, or to effect repairs on its distribution system, or while repairs are being made to Consumer or Customer-Owned equipment. Toronto Hydro shall have rights to access property in accordance with Section 40 of the *Electricity Act, 1998* and any successor acts thereto.

To assist with distribution system outages or emergency response, Toronto Hydro may require a Consumer or Customer to provide Toronto Hydro with emergency access to Consumer or Customer-Owned distribution equipment that normally is

## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

operated by Toronto Hydro or Toronto Hydro-Owned equipment on Consumer's property.

### 2.3.2 Power Quality

*This section should outline the guidelines and policies to which the Distributor will endeavor to adhere to in conveying electricity supply, such as service voltage guidelines and outage notification processes. This section also should indicate the process the distributor uses for handling voltage disturbances and power quality testing and remedial action.*

*This section also should include conditions under which supply of electricity to Customers may be interrupted. Additionally, conditions under which the supply may become unreliable or intermittent should be described.*

#### 2.3.2.1 Power Quality Testing

Where a Consumer or Customer provides evidence or data indicating that a power quality or an electromagnetic interference (EMI) problem may be originating from Toronto Hydro's distribution system, Toronto Hydro will investigate the issue within a reasonable timeframe in an attempt to identify the underlying cause. Depending on the circumstances, this may include a review of relevant power interruption data, trend analysis, and power quality monitoring. The power quality monitoring will be initially conducted at the main revenue meter and may be expanded to the Customer's facility if warranted.

Toronto Hydro will recommend and/or take appropriate mitigation measures upon determination that the cause resulting in the power quality concern:

1. originates from the Toronto Hydro distribution system;
2. is deemed a system delivery issue; and
3. industry standards are not met.

If Toronto Hydro is unable to correct the problem without adversely affecting other Toronto Hydro Consumers, Customers, or the distribution system, then it is not obligated to make the corrections. Toronto Hydro will apply appropriate industry standards and good utility practice as a guideline. If the problem lies on the Customer side of the demarcation point, Toronto Hydro may seek reimbursement from the Customer for the costs incurred in the investigation.

#### 2.3.2.2 Prevention of Distortion on the Distribution System

Customers having a non-linear load shall implement the necessary corrective measures such as installing proper filters and/or improving their grounding



## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

connections. The Customer's configuration of their electrical equipment must comply with the latest edition of IEEE Standard 519.

The Consumer or Customer should be aware that some distribution system events such as, but not limited to capacitor switching may cause problems with highly sensitive equipment, and the Consumer or Customer shall be responsible for mitigating these effects.

### **2.3.2.2.1 Voltage Distortion**

The Customer shall install equipment that is designed such that the voltage harmonic distortion contribution complies with Table 1 – Voltage distortion limits, of the latest edition of IEEE Standard 519. Specifically, the limit on individual harmonic distortion should be maintained at or below 3%, while the limit on total harmonic distortion should be maintained at or below 5%.

### **2.3.2.2.2 Current Distortion**

The Customer shall install equipment that is designed such that the current harmonic distortion limits are not exceeded, and shall remain in compliance with Table 2 – Current distortion limits for systems rated 120 V through 69 kV, of the latest edition of IEEE Standard 519.

### **2.3.2.3 Obligation to Help in the Investigation**

If Toronto Hydro has reason to believe the Customer's equipment is the source causing unacceptable harmonics or voltage level on Toronto Hydro's distribution system, the Customer shall help Toronto Hydro by providing required equipment information, relevant data and necessary access for monitoring the equipment.

The Customer shall assist in the investigation and resolution of power quality problems by:

- (a) maintaining and providing Toronto Hydro with a detailed log of exact times and dates of poor power quality;
- (b) ensuring corrective measures such as filters and/or grounding are installed for non-linear loads connected to the distribution system;
- (c) assisting Toronto Hydro in determining whether the Customer's equipment may be a source of undesirable system disturbances; and
- (d) ceasing operation of the equipment deemed to be the cause of system disturbances until satisfactory remedial action has been taken.

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If requested, Toronto Hydro can provide a list of recommended vendors that are qualified to perform an independent investigation, and to supply and install corrective equipment at the Customer's facility. All independent investigations or any requirements for corrective equipment shall be at the Customer's sole responsibility and expense.

### **2.3.2.4 Timely Correction of Deficiencies**

If an undesirable system disturbance is being caused by the Customer's equipment, the Customer will be required to cease operation of the equipment until remedial action has been taken by the Customer, at the Customer's expense. If the Customer does not take such action within a reasonable time, Toronto Hydro shall disconnect the supply of electricity to the property, in order to mitigate any adverse effects on other Customers or Consumers.

### **2.3.2.5 Notification for Interruptions**

Although it is Toronto Hydro's policy to minimize inconvenience to Consumers, it is necessary to occasionally interrupt a Consumer's supply of electricity to allow work on Toronto Hydro's electrical system. Toronto Hydro will endeavor to provide such Consumers with reasonable notice of planned power interruptions. However, interruption times may change due to inclement weather or other unforeseen circumstances. Toronto Hydro shall not be liable in any manner to such Consumers for failure to provide such notice of planned power interruptions or for any change to the schedule for planned power interruptions.

During an emergency, Toronto Hydro may interrupt supply of electricity to a property without notice in response to a shortage of supply of electricity or to effect repairs on Toronto Hydro's distribution system or while repairs are being made to Customer-Owned equipment, or to conduct work of an emergency nature involving the possibility of injury to persons or damage to property or equipment.

### **2.3.2.6 Notification to Consumers on Life Support**

Consumers who require an uninterrupted source of power for life support equipment must provide their own equipment for these purposes. Consumers with life support system are encouraged to inform Toronto Hydro of their medical needs and their available backup power. These Consumers are responsible for ensuring that the information they provide Toronto Hydro is accurate and up-to-date.

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## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

With planned interruptions, the same procedure as prescribed in Section 2.3.2.5 will be observed. For those unplanned power interruptions that extend beyond two hours and the time expected to restore power is longer than what was indicated by Consumers (registered on life support) as their available backup power, Toronto Hydro will endeavor to contact these Consumers but will not be liable in any manner to the Consumers for failure to do so.

### **2.3.2.7 Emergency Interruptions for Safety**

Toronto Hydro will endeavour to notify Consumers prior to interrupting the supply of electricity. However, if an unsafe or hazardous condition is found to exist, or if the use of electricity by apparatus, appliances, or other equipment is found to be unsafe or potentially damaging to Toronto Hydro or the public, the supply of electricity may be interrupted without notice.

### **2.3.2.8 Emergency Service (Trouble Calls)**

Toronto Hydro will exercise reasonable diligence and care to deliver a continuous supply of electricity to the Consumer. However, Toronto Hydro cannot guarantee a supply that is free from interruption.

When power is interrupted, the Consumer should first ensure that failure is not due to blowing of fuses within the installation. If there is a partial power failure, the Consumer should obtain the services of an electrical contractor to carry out necessary repairs. If, on examination, it appears that Toronto Hydro's main source of supply has failed, the Consumer should report these conditions at once to Toronto Hydro's Call Centre by calling 416-542-8000.

Toronto Hydro operates a Call Centre 24 hours a day to provide emergency service to Consumers. Toronto Hydro will initiate restoration efforts as rapidly as practicable.

### **2.3.2.9 Outage Reporting**

Depending on the outage, duration and the number of Consumers affected, Corporate Communications of Toronto Hydro may issue a news release to advise the general public of the outage. In turn, news radio stations may call for information on a 24-hour basis when they hear of an outage.

## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

### 2.3.3 Electrical Disturbances

***This section should outline the guidelines to which the Distributor and the Customer will be expected to adhere to regarding electrical disturbances.***

Toronto Hydro shall not be held liable for the failure to maintain supply voltages within standard levels due to Force Majeure as defined in Section 2.3.5 of these Conditions of Service.

Voltage fluctuations and other disturbances can cause flickering of lights and other serious difficulties for Consumers connected to Toronto Hydro's distribution system. Customers must ensure that their equipment does not cause disturbances such as harmonics and spikes that might interfere with the operation of adjacent Consumer equipment. Equipment that may cause disturbances includes large motors, welders and variable speed drives, etc. In planning the installation of such equipment, the Customer must consult with Toronto Hydro.

Some types of electronic equipment, such as video display terminals, can be affected by the close proximity of high electrical currents that may be present in transformer rooms. Toronto Hydro will assist in attempting to resolve any such difficulties at the Customer's expense.

Consumers who may require an uninterrupted source of power supply or a supply completely free from fluctuation and disturbance must provide their own power conditioning equipment for these purposes.

### 2.3.4 Standard Voltage Offerings

***This section should specify the voltages that the distributor may provide to each type of Customer, based on their supply requirements. This section should include both the primary and secondary voltages that are available. Additionally, any physical or geographic constraints on a particular voltage, or conditions under which voltages may not be provided should be detailed in this section.***

#### 2.3.4.1 Primary Voltage

The primary voltage to be used will be determined by Toronto Hydro for both Toronto Hydro-Owned and Customer-Owned transformation. Depending on the voltage of the plant that "lies along", the preferred primary voltage will be at 27.6/16 kV grounded wye, three phase, four-wire system. However, in the downtown core of the City of Toronto the primary voltage will be 13.8/8 kV grounded wye, three phase, four wire; or 13.8 kV three phase, three wire, depending on the area.

## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

### 2.3.4.2 Supply Voltage

Toronto Hydro's preferred secondary voltage is:

- 120/240 V, single phase, and
- 120/208 V or 347/600 V, three phase.

Depending on the system availability in the area, 120/208 V two phase, three wire may be supplied in place of 120/240 V.

The supply voltage governs the limit of supply capacity for any Customer.

When supply is from secondary street circuits the demand load shall be as follows:

- (i) residential: if at 120/240 V, single phase or 120/208 V, two phase, three wire, then up to 200 A service size;  
  
residential: if at 120/240 V, single phase or 120/208 V, two phase, three wire, then a 400 A service size feeding from the overhead distribution system must be connected directly to transformation via underground supply arrangement;  
  
commercial: if at 120/240 V, single phase or 120/208 V, two phase, three wire, then up to 75 kVA demand load;
- (ii) if at 347/600 V, three phase, four wire, then up to 80 kVA demand load;
- (iii) if at both 120/240 V, single phase and 347/600 V, three phase, four wire, then up to 100 kVA sum total demand load; or
- (iv) if at 120/208 V, three phase, four wire, then up to 100 kVA demand load.

For supply exceeding the above capacity, the Customer is required to provide a transformer, pad mounted or in a building vault, on private property, to receive supply of electricity up to the following capacities:

## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

When a pad-mounted transformer is used the demand load shall be as follows:

- (i) if fed from 4.16/2.4 kV primary at 120/208 V or 347/600 V, three phase, four wire, then supply is available for loads up to 300 kVA demand load;
- (ii) if fed from 13.8/8 kV primary at 120/208 V or 347/600 V, three phase, four wire, then supply is available for loads up to 750 kVA demand load; or
- (iii) if fed from 27.6/16 kV primary at 120/208 V or 347/600 V, three phase, four wire, then supply is available for loads up to 750 kVA and 1500 kVA demand load respectively.

When a transformer vault is used:

- (i) if fed from 4.16/2.4 kV primary at 120/208 V or 347/600 V, three phase, four wire, then supply is available for loads up to 300 kVA demand load;
- (ii) if fed from 13.8/8 kV primary at 120/208 V or 347/600 V, three phase, four wire, then supply is available for loads up to 1,500 kVA and 2,500 kVA demand load respectively depending on system availability in the area, (i.e. three phase);
- (iii) if fed from 27.6/16 kV primary at 120/208 V or 347/600 V, three phase, four wire, then supply is available for loads up to 1,500 kVA and 2,500 kVA demand load respectively (i.e. three phase); or
- (iv) if fed from 347/600 V network system, then supply is available for loads up to 10,000 kVA demand load depending on system availability in the area (i.e. three phase).

When the Customer requires voltages other than at the available supply voltage, or demands by a single occupant exceed the limits indicated above, the Customer shall consult with Toronto Hydro. Toronto Hydro may advise the Customer of any special conditions and requirements to obtain such non-standard services. However, Toronto Hydro is under no obligations to provide any non-standard services.

When a Customer is required to provide transformation facilities on private property in accordance with this section, and the Customer is unable to do so or is severely constrained from doing so, the Customer may request Toronto Hydro to provide the transformation facilities from Toronto Hydro's existing

## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

underground distribution system. If requested by the Customer, and if Toronto Hydro determines in its sole discretion that it is able to do so, then Toronto Hydro may provide these transformation facilities. By requesting this option, the Customer agrees to pay Toronto Hydro a fee for providing the transformation facilities as part of the Customer's connection costs, in addition to any associated expansion costs.

### 2.3.4.3 Multiple Connections to Main Distribution System

Customers will be generally connected to one point of the main Toronto Hydro distribution system. Toronto Hydro may offer a second point of connection to another point of the main Toronto Hydro distribution system when:

- a) the Customer is fed by the 13.8 kV underground radial system as defined in Section 1.1.1; or
- b) the Customer's point load exceeds the maximum set in Section 2.3.4.2 for service from a transformer vault.

For Customers supplied from the 13.8 kV underground radial system, if the demand exceeds the limit set for transformer vaults as set out in Section 2.3.4.2 the Customer may be eligible for the service depicted in Sketch 1(H-1) in Section 6, Reference #4 "Toronto Hydro Requirements for the Design and Construction of Customer-Owned High Voltage Substations".

Where multiple connections exist, and unless otherwise agreed by Toronto Hydro, load should be distributed evenly across all active connections. Load must not be transferred from one active connection to another without the permission of Toronto Hydro.

Toronto Hydro will determine the location of any connection points to its main distribution system. Although Toronto Hydro will give consideration to arguments relating to a need for diversity of supply, it retains the right to determine in its sole discretion, not to allow a second point of connection to another part of the main distribution system.

### 2.3.5 Voltage Guidelines

***This section should specify what voltages the distributor's Customers can reasonably expect, with reference to CSA Standard CAN3-235 current edition.***

Toronto Hydro maintains service voltage at the Customer's service entrance within the voltage variation limits shown in the table below:

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Nominal Voltage	Voltage Variation Limits			
	Extreme		Operating Conditions	
			Normal Operating Conditions	
Single Phase				
120/240	106/212	110/220	125/250	127/254
Two Phase 3 Wire				
120/208	110/190	112/194	125/216	127/220
Three Phase 4 Wire				
120/208Y	110/190	112/194	125/216	127/220
240/416Y (*)	220/380	224/388	250/432	254/440
347/600Y	306/530	318/550	360/625	367/635

(\*) 240/416Y is no longer a standard voltage offered by Toronto Hydro.

The Voltage Variation Limits, with the exception of the limits for Two Phase 3 Wire 120/208, are based on C.S.A. Standard CAN3-C235-83. Where voltages lie outside the indicated limits for Normal Operating Conditions but within the indicated limits for Extreme Operating Conditions as noted above, improvement or corrective action will be taken by Toronto Hydro on a planned or programmed basis, but not necessarily on an emergency basis. Where voltages lie outside the indicated limits for Extreme Operating Conditions, improvement or corrective action may be taken on an emergency basis depending on a number of factors, which include, but are not limited to, the location and nature of load or circuit, the extent to which voltage limits are exceeded, and the duration of time for which the limits have been exceeded.

Toronto Hydro shall practice reasonable diligence in maintaining voltage levels, but is not responsible for variations in voltage related to external factors. External factors include, but are not limited to, those factors that necessitate operating contingencies, and exceptionally high loads and low voltage supply from the transmitter or host distributor. Toronto Hydro shall not be liable for any delay or failure in the performance of any of its obligations under these Conditions of Service due to any events or causes beyond the reasonable control of Toronto Hydro, including, without limitation, severe weather, flood, fire, lightning, other forces of nature, acts of animals, epidemic, quarantine restriction, war, sabotage, act of a public enemy, earthquake, insurrection, riot, civil disturbance, strike, restraint by court order or public authority, or action or non-action by or inability to obtain authorization or approval from any governmental authority, or any combination of these causes (“Force Majeure”).

### 2.3.6 Emergency Backup Generation Facilities

***Distributors should include the following statements in this section:***

- ***Customers with portable or permanently connected emergency generation capability shall comply with all applicable criteria of the Ontario Electrical Safety***



## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

***Code and in particular, shall ensure that Customer emergency generation does not back feed into the Distributor's system.***

- ***Customers with permanently connected emergency generation equipment shall notify their Distributor regarding the presence of such equipment.***

***Any other requirements the Distributor imposes on Customers with emergency backup generation facilities should be described in this section.***

Emergency backup generation is installed by Customers for backup of load when utility power supply is not available. A Customer with portable or permanently connected emergency backup generation shall comply with all applicable criteria of the Ontario Electrical Safety Code (OESC) and in particular, shall ensure that its Emergency Backup Generation Facility does not back feed into the Distributor's system or back feed through the revenue meter.

A Customer with an Emergency Backup Generation Facility in Open-Transition mode shall further ensure that its facility does not parallel with, nor adversely affect Toronto Hydro's distribution system.

Customers who consider installing a Closed-Transition switch shall notify Toronto Hydro and shall submit documentation that satisfies Toronto Hydro's technical requirements. Customers shall obtain written authorization from Toronto Hydro prior to commissioning the switch in Closed-Transition mode. Closed-Transition switches must not operate the generator in parallel with Toronto Hydro's distribution system for longer than 100 ms under any circumstances. Further requirements are specified in Section 6, Reference #3 – "Toronto Hydro Distributed Generation Requirements", Section 3.2 Emergency Backup Generation Technical Requirements.

For parallel generation refer to Section 6, Reference #3 – "Toronto Hydro Distributed Generation Requirements".

Customers with a permanently connected Emergency Backup Generation Facility operating in parallel shall notify Toronto Hydro regarding the presence of such equipment and shall enter into a connection agreement as required in Section 6, Reference #3 – "Toronto Hydro Distributed Generation Requirements".

For portable emergency backup generation, residential Customers can install a Toronto Hydro approved meter base plug-in transfer device onto a 200 A, 4-jaw meter socket that is installed outdoors. All installations must meet Toronto Hydro approval requirements and will only be considered for residential Customers with 120/240 V, single-phase and up to a 200 A service. Customers must initially contact Toronto Hydro to begin the installation process for the meter base plug-in transfer device. Following a Toronto Hydro field visit at the Customer's residence to determine the feasibility of the installation, the Customer will be advised whether to proceed to make arrangements to have the meter base plug-in transfer device installed

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by an electrical contractor that is licensed by the Electrical Safety Authority. In addition, during the time of installation or removal of the meter base plug-in transfer device, a service disconnection/reconnection and breaking/resealing of the revenue meter will be required and shall be performed by Toronto Hydro. The Customer shall enter into a connection agreement and pay for associated Toronto Hydro costs.

The installation of a meter base plug-in transfer device is not permitted where a Customer location has a distributed generation installation (i.e. Micro Feed-in Tariff, Feed-in Tariff, Net Metering, Load Displacement, and Renewable Energy Standard Offer Program).

### 2.3.7 Metering

***This section should specify the options available to a Customer for metering equipment. The Distributor also should outline the technical requirements for meter installations including location and associated main switch.***

Toronto Hydro will supply, install, own, and maintain all meters, instrument transformers, ancillary devices, and secondary wiring that are required for revenue metering.

For further metering conditions and requirements refer to the three reference documents as specified in Section 6, Reference #6 “Toronto Hydro Metering Requirements 750 Volts or Less”, Reference #7 “Toronto Hydro Metering Requirements for 13.8 kV & 27.6 kV Customer-Owned Substations”, and Reference #9 “Toronto Hydro Metering Services and Charges”.

A generation facility on the Toronto Hydro distribution system shall follow the metering requirements and conditions as specified in Section 6, Reference #3 – “Toronto Hydro Distributed Generation Requirements”.

#### 2.3.7.1 General

***Describe the Distributor’s access to meter installation requirements here.***

Toronto Hydro will typically install metering equipment at the Customer supply voltage. The Customer must provide a convenient and safe location, satisfactory to Toronto Hydro, for the installation of meters, wires and ancillary equipment. Meters for new or upgraded residential services will be mounted outdoors on an approved meter socket as specified in Section 6, Reference #6 – “Toronto Hydro Metering Requirements 750 Volts or Less” Table I.

No person, except those authorized by Toronto Hydro, may remove, connect, or otherwise interfere with meters, wires, or ancillary equipment owned by Toronto Hydro.

## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

The Customer will be responsible for the care and safekeeping of Toronto Hydro meters, wires and ancillary equipment on the Customer's premises. If any Toronto Hydro equipment installed on Customer premises is damaged, destroyed, or lost other than by ordinary wear and tear, tempest or lightning, the Customer will be liable to pay to Toronto Hydro the value of such equipment, or at the option of Toronto Hydro, the cost of repairing the equipment.

The location allocated by the property owner for Toronto Hydro metering shall provide direct access for Toronto Hydro staff and shall be subject to satisfactory environmental conditions, some of which are:

- Maintain a safe and adequate working space in front of equipment, not less than 1.2 metres (48") and a minimum ceiling height of 2.1 metres (84");
- Maintain an unobstructed working space in front of equipment, free from, or protected against, the adverse effects of moving machinery, vibration, dust, moisture or fumes; and
- Meter sockets installed outdoors shall be located outside a 1.0 metres radius from the discharge of a combustible gas relief device or vent. Where the 1.0 metres clearance cannot be achieved, the Customer shall contact the gas company to install a certified overpressure cut-off type regulator, which only requires 0.3 metres clearance from the meter socket.

Where Toronto Hydro deems self-contained meters to be in a hazardous location, the Customer shall provide a meter cabinet or protective housing.

Any compartments, cabinets, boxes, sockets, or other workspace provided for the installation of Toronto Hydro's metering equipment shall be for the exclusive use of Toronto Hydro. No equipment, other than that provided and installed by Toronto Hydro, may be installed in any part of the Toronto Hydro metering workspace.

### **2.3.7.1.1 Metering Requirements for Multi-Unit Residential Rental Buildings and Condominiums**

Developers of new multi-unit residential rental buildings and new and existing condominiums (collectively, "MURBs"), or boards of directors of condominiums, or authorized persons in charge of any other applicable class of unit under Ontario Regulation 389/10, may choose to have Toronto Hydro install unit smart metering, or to have Toronto Hydro install a bulk interval meter for the purpose of enabling unit sub-metering by a licensed unit sub-meter provider.

## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

### Installation of Unit Smart Metering by Toronto Hydro

Upon the request of a MURB developer or a condominium board of directors, Toronto Hydro will install unit smart metering that meets the functional specification of Ontario Regulation 425/06 – *Criteria and Requirements for Meters and Metering Equipment, Systems and Technology* (smart metering). In that case, each separate residential and commercial unit, as well as common areas, will become direct individual customers of Toronto Hydro, with the common area accounts held by the developer, condominium corporation or the landlord as the case may be.

The MURB developer or condominium board of directors may choose an Alternative Bid for the installation of unit smart metering. In that case, the MURB developer, landlord or condominium board of directors is required to:

- (i) select and hire a qualified contractor;
- (ii) ensure all work that is eligible for alternative bid is done in accordance with Toronto Hydro's technical standards and specifications: and
- (iii) assume full responsibility for the installation and warranty all aspects for a period of 2 years from date of commissioning.

Where the MURB developer or condominium board of directors transfers the metering facilities installed under the alternative bid option to Toronto Hydro, and provided Toronto Hydro has inspected and approved the facilities installed, Toronto Hydro shall pay the condominium corporation, landlord or developer a transfer price. The transfer price shall be the lower of the cost to the MURB developer or condominium board of directors to install the metering facilities or Toronto Hydro's fully allocated cost to install the metering facilities.

### Common Area Metering

Where units in a MURB are to be unit smart metered, the responsible party (MURB developer, condominium board of directors, or landlord) shall enter into a contract with Toronto Hydro for the supply of electrical energy for all common or shared services. Common or shared services typically include lighting of all common areas shared by the tenants, or unit owners, and common services such as heating, air conditioning, water heating, elevators, and common laundry facilities. In such cases, consumption for all common areas will be separately metered.

## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

### Installation of Bulk Interval Metering by Toronto Hydro

Where bulk interval metering is supplied by Toronto Hydro to an exempt distributor for the purpose of enabling unit sub-metering, the responsible party (i.e., the developer, condominium corporation, or landlord, but not the unit sub-meter provider) shall enter into a contract with Toronto Hydro for the supply of electrical energy to the building.

#### **2.3.7.1.2 Main Switch and Meter Mounting Devices**

The Customer's main switch immediately preceding the meter shall be installed so that the top of the switch is no higher than 1.83 m and that the bottom of the switch is no lower than 1.0 m from the finished floor and shall permit the sealing and padlocking of:

- (a) the handle in the "open" position; and
- (b) the cover or door in the closed position.

Meter mounting devices for use on Commercial/Industrial accounts shall be installed on the load side of the Customer's main switch and be located indoor.

The Customer is required to supply and install a Canadian Standards Association (CSA) approved meter socket for the use of Toronto Hydro's self-contained socket meters for the main switch ratings and supply voltages listed in Table 5 in Section 5 of these Conditions of Service.

The Customer is required to supply and install a meter cabinet to contain Toronto Hydro's metering equipment for the main switch ratings and supply voltages listed in Table 6 in Section 5 of these Conditions of Service.

Meter centers installed for individual metering applications must meet the requirements specified in Table 8 in Section 5 of these Conditions of Service.

The Customer shall permanently and legibly identify each metered service with respect to its specific address, including unit or apartment number. The identification shall be applied to all service switches, circuit breakers, meter cabinets, and meter mounting devices.

#### **2.3.7.1.3 Service Mains Limitations**

The metering provision and arrangement for service mains in excess of either 600 A or 600 V shall be submitted to Toronto Hydro for approval before building construction begins. Additional standards and

## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

requirements for services metered above 600 V can be made available upon request.

### **2.3.7.1.4 Special Enclosures**

Specially constructed meter entrance enclosures will be permitted for outdoor use upon Toronto Hydro's approval of a written application for use.

### **2.3.7.1.5 Meter Cables**

The Customer shall provide meter loops having a length of 610 mm in addition to the length between line and load entry points.

Line and load entry points shall be approved by Toronto Hydro prior to installation. Where more than two conductors per phase are used, the connectors shall be provided by the Customer (see Table 6 in Section 5 of these Conditions of Service for required cabinets). Mineral insulated, solid or hard drawn wire conductors are not acceptable for meter loops.

Any variation from the above must first be checked and approved by Toronto Hydro prior to installation.

### **2.3.7.1.6 Barriers**

Barriers are required in each section of switchgear or service entrance equipment between metered and unmetered conductors and/or between sections reserved for Toronto Hydro use and sections for Customer use.

### **2.3.7.1.7 Doors**

Side-hinged doors shall be installed over all live electrical equipment where Toronto Hydro personnel may be required to work (i.e. line splitters, unmetered sections of switchgear, breakers, switches, metering compartments, meter cabinets and enclosures). These hinged doors shall have provision for sealing and padlocking. Where bolts are used, they shall be of the captive knurled type. All outer-hinged doors shall open no less than 135°. All inner-hinged doors shall open to a full 90°.

### **2.3.7.1.8 Auxiliary Connections**

All connections to circuits such as fire alarms, exit lights and Customer instrumentation shall be made to the load side of Toronto Hydro's metering. No Customer equipment shall be connected to any part of the Toronto Hydro metering circuit.

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### 2.3.7.1.9 Working Space

Clear working space shall be maintained in front of all equipment and from all side panels in accordance with the Ontario Electrical Safety Code.

### 2.3.7.2 Current Transformer Boxes

***Where current transformers are required, the Distributor should outline the technical requirements to be followed for such installations.***

Where instrument transformers are incorporated in low voltage switchgear, the size of the chamber and number of instrument transformers shall be as shown in Table 7 in Section 5 of these Conditions of Service. A separate meter cabinet must be supplied and installed by the Customer, located to the satisfaction of Toronto Hydro and as close as possible to the instrument transformer compartment.

The cabinet and the compartment will be connected by an empty 1½ inch conduit, the length of which shall not exceed 30 m, and which shall include a maximum of three 90° bends. The conduit will be provided for the exclusive use of Toronto Hydro. No fittings with removable covers are permitted.

The meter cabinet shall be grounded by a minimum #6 copper grounding conductor, not installed in the above conduit. The Customer shall install a strong nylon or polyrope pull line in the conduit, with an excess of 1500 mm loop left at each end.

The final layout and arrangements of components must be approved by Toronto Hydro prior to fabrication of equipment.

Where two or more circuits are totalized, or where remote totalizing is involved, or where instrument transformers are incorporated in high voltage switchgear (greater than 750 V), Toronto Hydro will issue specific metering requirements.

### 2.3.7.3 Interval Metering

***Where interval metering is required or requested, the Distributor should outline the technical requirements to be followed for such installations. Included with the technical specifications should be the conditions under which interval metering will be supplied.***

Interval meters will be installed for all new or upgraded services where the peak demand is forecast to be 50 kW or greater, or for any Customer wishing to participate in the spot market pass-through pricing. Prior to the installation of an

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interval meter, the Customer must provide and install a 32 mm (1 ¼ in) conduit from the meter cabinet to an outdoor location for the installation of an antenna to be mounted 1.8 m (6 ft) above ground. The conduit installation shall not be more than 30.5 m (100 ft) in length.

If Toronto Hydro determines in its sole discretion that a cellular installation is not feasible, Toronto Hydro may require the Customer to install a 13 mm (1/2 in) conduit from the meter cabinet to the telephone room. Toronto Hydro will arrange for the installation of a telephone line, terminated in the meter cabinet for the exclusive use of Toronto Hydro to retrieve interval meter data. The Customer will be responsible for the installation of the telephone infrastructure (conduit, cable, and jack). The phone line will be Toronto Hydro-Owned, direct dial, voice quality, active 24 hours per day, and energized prior to meter installation.

### 2.3.7.4 Meter Reading

***This section should outline the requirements for access to meters for the purposes of obtaining readings and the process to be used if a reading is not obtained.***

The Customer or Consumer must provide or arrange free, safe and unobstructed access during regular business hours to any authorized representative of Toronto Hydro for the purpose of meter reading, meter changing, or meter inspection. Where premises are closed during Toronto Hydro's normal business hours, the Customer or Consumer must, on reasonable notice, arrange such access at a mutually convenient time.

### 2.3.7.5 Final Meter Reading

***This section should outline any requirements associated with obtaining a final meter reading on termination of a contract for service.***

When a service is no longer required, the Customer or Consumer shall provide sufficient notice of the date the service is to be discontinued so that Toronto Hydro can obtain a final meter reading as close as possible to the final reading date. The Customer or Consumer shall provide access to Toronto Hydro or its agents for this purpose. If a final meter reading is not obtained, the Consumer shall pay a sum based on an estimated demand and/or energy for electricity used since the last meter reading, as determined by Toronto Hydro.



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## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

### 2.3.7.6 Faulty Registration of Meters

***In this section, the Distributor should outline the process for dealing with metering errors.***

Metering electricity usage for the purpose of billing is governed by the federal *Electricity and Gas Inspection Act* and associated regulations, under the jurisdiction of Measurement Canada, Industry Canada. Toronto Hydro's revenue meters are required to comply with the accuracy specifications established by the regulations under the above Act.

In the event of incorrect electricity usage registration, Toronto Hydro will determine the correction factors based on the specific cause of the metering error and the Consumer's electricity usage history. The Consumer shall pay for all the electricity supplied a reasonable sum based on the reading of any meter formerly or subsequently installed on the premises by Toronto Hydro, due regard being given to any change in the characteristics of the installation and/or the demand. If Measurement Canada, Industry Canada determines that the Consumer was overcharged, Toronto Hydro will reimburse the Consumer for the amount incorrectly billed.

If the incorrect measurement is due to reasons other than the accuracy of the meter, such as incorrect meter connection, incorrect connection of auxiliary metering equipment, or incorrect meter multiplier used in the bill calculation, the billing correction will apply for the duration of the error. Toronto Hydro will correct the bills for that period in accordance with the regulations under the *Electricity and Gas Inspection Act*.

### 2.3.7.7 Meter Dispute Testing

***This section should outline the process by which a Customer can dispute a meter measurement or read and seek redress.***

Metering inaccuracy is an extremely rare occurrence. Most billing inquiries can be resolved between the Customer or Consumer and Toronto Hydro without resorting to the meter dispute test.

Either Toronto Hydro or the Customer or Consumer may request the service of Measurement Canada to resolve a dispute. If the Customer or Consumer initiates the dispute, Toronto Hydro will charge the Customer or Consumer a meter dispute fee if the meter is found to be accurate and Measurement Canada rules in favor of the utility.

## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

### 2.4 Tariffs and Charges

#### 2.4.1 Service Connection

***The Distributor should outline the rates that have been established for providing the Customer with a connection to the electrical distribution system and all services provided by the Distributor as per the rules and regulations laid out by all applicable codes.***

Charges for distribution services are made as set out in the Schedule of Rates available from Toronto Hydro. Notice of Rate revisions shall be published in major local newspapers. Information about changes will also be mailed to all Consumers with the first billing issued at revised rates.

##### 2.4.1.1 Customers Switching to Retailer

There are no physical service connection differences between Standard Service Supply (SSS) customers and third party retailers' customers. The supply of electricity to both types of customers is delivered through Toronto Hydro's distribution system with the same distribution requirements. Therefore, all service connection requirements applicable to the SSS customers are applicable to third party retailers' customers.

#### 2.4.2 Energy Supply

***This section should outline the process the Distributor has established for the following:***

- ***Provision of Standard Service Supply to the Customer, per the rules and regulations laid out in the Retail Settlement Code and the Standard Service Supply Code.***
- ***Provision of Supply to the Customer through a Retailer, per the rules and regulations laid out in the Retail Settlement Code.***
- ***Wheeling of energy and all associated tariffs.***

##### 2.4.2.1 Standard Service Supply (SSS)

All Toronto Hydro Consumers are Standard Service Supply (SSS) Consumers until Toronto Hydro is informed by the Consumer or the Consumer's authorized retailers of their switch to a competitive electricity supplier. The Service Transfer Request (STR) must be made by the Consumer or the Consumer's authorized retailer.

##### 2.4.2.2 Retailer Supply

Consumers transferring from Standard Service Supply (SSS) to a retailer shall comply with the Service Transfer Request (STR) requirements as outlined in

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Sections 10.5 through 10.5.6 of the Retail Settlement Code. All requests shall be submitted as electronic file and transmitted through EBT Express. Service Transfer Request (STR) shall contain information as set out in Section 10.3 of the Retail Settlement Code.

If the information is incomplete, Toronto Hydro shall notify the retailer or Consumer about the specific deficiencies and await a reply before proceeding to process the transfer.

### 2.4.2.3 Wheeling of Energy

All Customers or Consumers considering delivery of electricity through the Toronto Hydro distribution system are required to contact Toronto Hydro for technical requirements and applicable tariffs.

### 2.4.3 Deposits

***This section should outline any deposit and prudential requirements the Distributor has established for providing a Customer with Distribution Services, supply through Standard Service Supply or through a Retailer, per the rules and regulations laid out in the Distribution System Code.***

Whenever required by Toronto Hydro, including, but not limited to, as a condition of supplying or continuing to supply Distribution Services, Consumers and Customers shall provide and maintain security in an amount that Toronto Hydro deems necessary and reasonable. Toronto Hydro will not discriminate among Customers with similar risk profiles or risk related factors except where expressly permitted under the Distribution System Code.

Except for Consumers or Customers who meet the security deposit waiver conditions described below, all Consumers or Customers are required to provide an account security deposit to Toronto Hydro, which, at the Consumer's or Customer's election, must be in the form of (i) cash, cheque or Money Order, or, if approved by Toronto Hydro, Visa or MasterCard or (ii) for non-residential Consumers or Customers an automatically renewing irrevocable commercial letter of credit from a bank defined in the *Bank Act*, S.C. 1991, c.46. Toronto Hydro will not accept third party guarantees.

The amount of the account security deposit will be based on the billing factor times the estimated average bill during the most recent 12 months. The billing factor is 2.5 for monthly billed Consumers or Customers.

Where there is no established historical electricity consumption information for the service premises, the deposit will be based on a reasonable estimate using information from a like property used for similar purposes.

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Where the Consumer or Customer, other than a residential electricity Customer, has more than one disconnection notice in a relevant 12 month period, the highest bill in the period will be used for the calculation of the deposit.

If requested by the Consumer or Customer, Consumers or Customers will be permitted to pay the security deposit in equal installments over a maximum of 4 months, or over a period of 6 months for residential Customers (including where a new security deposit is required due to Toronto Hydro having to apply the existing security deposit against amounts owing).

**The security deposit may be waived based on the following criteria:**

- a) The Consumer or Customer has a good payment history based on the most recent customer history with some portion in the most recent 24 months, during which time the Consumer or Customer:
- had no more than one (1) notice of disconnection; AND
  - had no more than one (1) payment returned for insufficient funds (“NSF”); AND
  - had no disconnect/collection trip; AND
  - had no security deposit applied for amounts owing.

The minimum time period for good payment history is as follows:

- Residential - 1 year
- Non-residential <50 kW demand rate class - 5 years
- All other classes - 7 years

or

- b) The Consumer or Customer provides a letter from another electricity or gas distributor in Canada confirming good payment history. The letter must contain information consistent with the good payment criteria described in this document.

or

- c) The Consumer or Customer (other than those in a >5000 kW demand rate class) provides a satisfactory credit check at its expense. The acceptable Equifax Credit scores are as follows:

- Residential - Consumer Score of 700 or greater
- Business - Commercial Score of 20 or lower

or

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- d) Residential account deposits may be waived where the Consumer or Customer enrolls in the Toronto Hydro's pre-authorized payment plan or in an equal monthly payment plan, and supplies at least two pieces of identification information, provided that a deposit may otherwise be required as per section 2.4.9B of the Distribution System Code.  
or
- e) The Customer is a bulk-metered residential condominium as defined in the *Condominium Act*, 1998 and has provided Toronto Hydro with a signed declaration attesting to their legal status as a residential condominium corporation.  
or
- f) The residential Customer has been qualified as an "eligible low-income customer" and requests a waiver.

The credit history of a separate legal entity or a company that carries on business under a different business name cannot be used to provide a non-residential Customer with a security deposit waiver irrespective of common ownership or affiliation. Toronto Hydro reserves the right to deny a security deposit waiver request at its sole discretion.

The security deposit may be reduced for non-residential Consumers or Customers with 50 kW or greater demand, based on the following criteria:

Where the Consumer or Customer has a credit rating from a recognized credit rating agency, (*Dominion Bond Rating Service, Standard & Poor's or Moody's*) the maximum amount of deposit required will be reduced as follows:

<b>Credit Rating</b> (Using Standard & Poor's Rating Terminology)	<b>Allowable Reduction</b>
AAA- and above	100%
AA-, AA, AA+	95%
A-, From A, A+ to below AA	85%
BBB-, From BBB, BBB+ to below A	75%
Below BBB-	0%

Equivalent ratings from other bond rating agencies would apply for the same reductions.

In the above case, the commodity price used to calculate the deposit shall be the same as the price used by the IESO for the purpose of determining maximum net exposures and prudential support obligations for market participants other than distributors, low-volume Consumers and designated Consumers.

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Interest will accrue monthly on security deposits commencing when the total deposit has been received. The rate shall be at the average Chartered Bank Prime Rate as published on the Bank of Canada Web site, less 2%. The interest rate shall be updated by Toronto Hydro at a minimum on a quarterly basis. The interest will be calculated and applied to the existing deposit prior to each update and at a minimum on a yearly basis.

Toronto Hydro will undertake an annual review of all security deposit requirements for each Consumer or Customer based on the ***Good Payment History*** described in this document.

- Where it is determined that all or part of the deposit is no longer required, the account will be credited with the amount of the deposit plus accumulated interest.
- Where it is determined that a deposit is now required or needs to be adjusted upward, the amount of the deposit will be added to the next regular bill and is payable by the due date of that bill, except for residential Customers which they shall be permitted to pay the adjusted amount in equal installments paid over a period of at least 6 months. As with all outstanding balances payment arrangements that are satisfactory to Toronto Hydro may be made.
- For Consumers or Customers in the >5000 kW demand rate class, where the Consumer or Customer is in a position to have some or all of the deposit refunded, only 50% of the deposit will be returned. A higher refund requires a credit rating from a recognized credit rating agency based on the criteria previously stated.

***Note: Where no deposit is on file or there is a deposit that does not meet the maximum amount, and the Consumer or Customer meets the good payment history criteria but does not meet the time frame, a new or increased deposit amount will not be added.***

Upon closure of the Consumer's or Customer's account with Toronto Hydro, including a Consumer or Customer move from standard supply service ("SSS") to a competitive retailer where the retailer is performing the billing function (retailer consolidated billing), for all accounts types, the balance of the security deposit plus accumulated interest, after all amounts owing are paid, will be returned to the Consumer or Customer within six weeks of the closure of the account.

No earlier than 12 months after the payment of a security deposit or the making of a prior demand for a review, a Consumer or Customer may request in writing that the deposit amount be reviewed to determine whether the entire amount of the

## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

security deposit, or some portion of it, should be returned to the Consumer or Customer as it is no longer required.

### 2.4.4 Billing

***This section should outline the billing methods and billing cycles the Distributor has established to provide a Customer with Distribution Services, supply through Standard Service Supply or through a Retailer, per the rules and regulations laid out in the Retail Settlement Code.***

Toronto Hydro renders bills to its Customers on a monthly basis. Bills for the use of electrical energy may be based on either a metered or an unmetered connection.

Customers that are metered will be billed based on an actual meter reading. During periods when an actual meter reading is unavailable, Customers will be billed in accordance with the validating, estimating, and editing (VEE) process as described in Section 5.3 of the DSC.

Totalization of individually metered accounts is not allowed. However, a building that is Toronto Hydro unit smart metered may have an option of totalized billing for the common element meters in that building only.

The Customer may dispute charges shown on the Customer's bill or other matters by contacting and advising Toronto Hydro of the reason for the dispute. Toronto Hydro will promptly investigate all disputes and advise the Customer of the results.

### 2.4.5 Payments and Overdue Account Interest Charges

***This section should outline payment methods that the Distributor has established to provide the Customer with Distribution Services, supply through Standard Service Supply or through a Retailer as per the rules and regulations laid out in the Retail Settlements Code.***

Toronto Hydro accepts payments in the form of a cheque (either mailed or delivered to a Toronto Hydro drop box), and through most financial institutions (either directly or through Pre-Authorized Debits).

Payment plans are available to Customers as per Section 2.6.2 of the Standard Supply Service Code. Except where the Customer is in arrears on payment to Toronto Hydro for electricity charges and has not entered into an arrears payment agreement with Toronto Hydro, an equal monthly payment plan option, whereby an equalized payment amount is automatically withdrawn from a Customer's account with a financial institution on a monthly basis, is available for qualifying residential Customers. Except where the Customer is in arrears on payment to Toronto Hydro for electricity charges and has not entered into an arrears payment agreement with Toronto Hydro, an equal monthly billing plan option, whereby a monthly bill is issued to a Customer and the amount due in each bill is equalized over the course of a

## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

year, is available to Eligible Low-Income Customers.

Bills are payable in full by the due date, 20 days after the statement date. After the due date, interest is charged on any amount past due at a daily rate of 0.04896% compounded at time of billing from the due date until receipt of such amount and all accrued interest (effective interest rate of 19.56% per annum). Where a partial payment has been made by the Customer on or before the due date, the interest charge will apply only to the amount of the bill outstanding at the due date. The Customer will be required to pay additional charges for the processing of non-sufficient fund (N.S.F.) cheques.

Outstanding bills are subject to the collection process and may ultimately lead to the service being discontinued. Service will be restored once satisfactory payment and/or payment arrangements have been made (refer to Section 2.2.1).

### 2.4.6 Credit Refunds to Customer

When the Customer closes an account for any reason, it is the Customer's responsibility to immediately notify Toronto Hydro of the termination of the account and to provide updated contact information including mailing address.

If a credit amount is left on the Customer's account after Toronto Hydro issues a final bill, Toronto Hydro will mail a refund cheque to the Customer at the last known address on file.

## 2.5 Customer Information

***The Conditions of Service shall describe the provision of information with respect to chapter 11 of the Retail Settlement Code. This specifies the rights of Consumers and retailers to access current and historical usage information and related data and the obligations of distributors in providing access to such information. The Conditions of Service should include reference to include information subject to privacy regulations and load profile information.***

***Any processes for handling requests for information outside of the requirements of the Retail Settlement Code should be described in this section.***

Toronto Hydro's Privacy Policy Statement describes how and why Toronto Hydro collects, uses, discloses, handles, and protects the personal information of its Customers, Consumers or members of the public. It also addresses the reasons why personal information is collected, used, or disclosed, how the information is safeguarded, and outlines individuals' rights with respect to this information. Toronto Hydro's Privacy Policy Statement can be found on its website.

A third party who is not a retailer may request historical usage information with the written authorization of the Consumer to provide their historical usage information.



## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

Toronto Hydro will provide information appropriate for operational purposes that has been aggregated sufficiently, such that an individual's Consumer information cannot reasonably be identified, at no charge to another distributor, a transmitter, the IESO or the OEB. Toronto Hydro may charge a fee that has been approved by the OEB for all other requests for aggregated information.

At the request of a Consumer, Toronto Hydro will provide a list of retailers who have Service Agreements in effect within its distribution service area. The list will inform the Consumer that an alternative retailer does not have to be chosen in order to ensure that the Consumer receives electricity and the terms of service that are available under Standard Supply Service.

Upon receiving an inquiry from a Consumer connected to its distribution system, Toronto Hydro will either respond to the inquiry if it deals with its own distribution services or provide the Consumer with contact information for the entity responsible for the item of inquiry, in accordance with chapter 7 of the Retail Settlement Code.

An embedded distributor that receives electricity from Toronto Hydro shall provide load forecasts or any other information related to the embedded distributor's system load to Toronto Hydro, as determined and required by Toronto Hydro. A distributor shall not require any information from another distributor unless it is required for the safe and reliable operation of either distributor's distribution system or to meet a distributor's licence obligations.

### 2.6 Temporary Services

A temporary service is a planned service connection requiring the supply of electricity typically for a period of less than twelve (12) months, after which the temporary service will be disconnected and removed. A temporary service is normally a metered service and is generally provided for construction purposes or special events.

Temporary services can be supplied overhead or underground. The Customer shall contact and provide specified information to Toronto Hydro in the early planning stages, so that Toronto Hydro can determine at its sole discretion the type of temporary service installation and the point of supply. The Customer is responsible for supplying, installing, and removing the required Customer's temporary facilities on their property in accordance with Toronto Hydro requirements, and the Ontario Electrical Safety Code and Bulletins. There may be situations where the Customer is required to provide temporary transformation facilities on Customer's private property.

The Customer is responsible for Toronto Hydro's costs associated with the installation and removal of equipment required for the temporary service. The Customer shall pay in accordance with the Standard Service Charges specified on

## Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)

Toronto Hydro's website. Where Standard Service Charges do not apply, the Customer shall pay a fair and reasonable charge based on cost recovery principles. In all cases, Toronto Hydro shall determine, at its sole discretion, the amount that the Customer shall pay.

Subject to the requirements of Toronto Hydro, supply will be connected after receipt of a "Connection Authorization" from the Electrical Safety Authority (ESA), an account opened and payment for connection costs is received from the Customer.

A temporary service is generally provided for a period of no more than twelve (12) months, and the equipment for such temporary service may be re-inspected by the ESA at the end of a six (6) month period. The Customer shall inform Toronto Hydro if the temporary service extends beyond twelve (12) months.

Where a temporary service is to be provided, the Customer shall provide and maintain a designated area for posting Toronto Hydro information. The Customer is responsible for ensuring that the posted information is not tampered with or obstructed in any way. The entire site relating to where the temporary service is to be installed, which includes the route to and from all work areas, must be maintained at all times in accordance with all laws and regulations and in a safe condition which allows Toronto Hydro employees and representatives to carry out all work in a safe environment. The Customer shall be responsible for all damages and related costs sustained by any Toronto Hydro employee or representative in carrying out such work.

In addition to ESA requirements, where Toronto Hydro's point of supply terminates at a pole or post the Customer shall leave 760 mm of cable at the masthead for connection purposes, and for:

- a) a temporary secondary service connection up to 200 A at 120/240 V, 120/208 V or 347/600V, the supply connection shall terminate at a temporary pole that is installed by the Customer on Customer's private property. The supply connection can be fed either from the overhead or underground distribution system. The Customer is responsible for installing all the necessary apparatus (e.g. conduit, meter socket, service equipment in weatherproof enclosure) on the pole.
- b) overhead transformation feeding a temporary secondary service connection requiring electricity for a 400 A or 600 A service at 347/600 V, Toronto Hydro shall install temporary service conductors directly from the transformer secondary terminals and terminate at a temporary pole that is installed by the Customer on Customer's private property. The Customer is responsible for installing all the necessary components (e.g. clevis, masthead, conduit) on the pole. The Customer shall extend the temporary service conductors from the pole to a housing where the main service entrance equipment and meter socket are to be installed.

## **Section 2 – DISTRIBUTION ACTIVITIES (GENERAL)**

In the case of temporary underground primary services, Toronto Hydro will install and connect temporary primary service cables to a temporary point of supply indicated by Toronto Hydro. The Customer shall be responsible for the installation of any civil infrastructure on Customer's private property, and may be responsible for the installation and removal of the temporary electrical equipment as applicable.

## Section 3 – CUSTOMER CLASS SPECIFIC

### 3 CUSTOMER CLASS SPECIFIC

*The Customer Class Specific section shall contain references to services and requirements, which are specific to individual Customer classes. This section should cover such items as:*

- *Demarcation Point.*
- *Metering.*
- *Service Entrance Requirements.*
- *Delineation of Ownership and Operational Points of Demarcation.*
- *Special Contracts.*
- *Other conditions specific to Customer class.*

*The following are examples of Customer specific subsections. It is recognized that Customer Classifications are unique to each Distributor. The Distributor is not limited by these examples to the range and scope of their Customer Classifications. Each Distributor therefore should review their current Classifications and ensure that all of their existing Customer Classifications are adequately covered by the Distributor's Conditions of Service document.*

#### 3.1 Residential

*Include all items that apply specifically to Residential Customers not covered under the General section.*

Refer to Tables 1.1, 1.2 and 1.3 and Table 2 under Section 5 of these Conditions of Service for Point of Demarcation, Standard Allowance and Connection Fees for Residential Services.

#### 3.1.1 Overhead Services

##### 3.1.1.1 Minimum Requirements

In addition to, or in instances of deviation from the requirements of the Ontario Electrical Safety Code (latest edition), the following conditions shall apply:

- (i) A clevis type insulator is to be supplied and installed by the Customer.
- (ii) This point of attachment device must be located:
  - (a) Not less than 4.5 m nor greater than 5.5 m above grade (to facilitate proper ladder handling techniques). Building must have a minimum offset from property line of 1.2 m.
  - (b) Between 150 mm and 300 mm below the service head.
  - (c) Within 1 m of the face of the building.

## Section 3 – CUSTOMER CLASS SPECIFIC

- (iii) Clearance (under maximum sag conditions of the conductors) must be provided between utility service conductors and finished grade of at least 4.7 m over lands accessible to vehicles and 3.7 m over or alongside walkways or areas unlikely travelled by vehicles.

A minimum horizontal clearance (under maximum swing conditions of the conductors) of 1 m must be provided from utility service conductors so that they cannot be reached by a person: (1) standing on a readily accessible surface such as a balcony, stairway, or fire escape, or (2) reaching from a window or door. Alternatively, a minimum vertical clearance (under maximum sag conditions of the conductors) of 2.5 m must be provided from utility conductors passing over a readily accessible surface such as a balcony, stairway, or fire escape.

- (iv) A 4 jaw approved meter socket as specified in Section 6, Reference #6 – “Toronto Hydro Metering Requirements 750 Volts or Less” Table I shall be provided. Certain areas will require a 5-jaw socket as determined by Toronto Hydro. The Customer should contact Toronto Hydro to confirm details.
- (v) Clear unobstructed access must be maintained to and in front of the meter location.
- (vi) Service locations requiring access to adjacent properties (mutual drives, narrow side set-backs, etc.) will require the completion of an easement or written consent from the property owner(s) involved.

Proposed new or service changes in areas with mutual access (such as driveways, walkways) require:

- at least 50% ownership of the walkway or driveway by the property owner requesting the service when the width of the mutual property is less than 2 m. (Right of way access is not considered ownership);
- a minimum of 1 m width (for meter only installation) and a minimum 1.5 m width (for overhead connection access);
- absence of fences or other property separation;
- unobstructed access to service; and
- customer responsibility for disclosure of all property encumbrances.

Toronto Hydro assumes no liability for any property or meter location disputes between owner(s).

## Section 3 – CUSTOMER CLASS SPECIFIC

- (vii) The approved meter socket shall be mounted directly below the service mast such that the midpoint of the meter is 1.7 m ( $\pm$  100 mm) above finished grade within 1 m of the face of the building (in front of any existing or proposed fence) that is closest to the Toronto Hydro source of supply, unless otherwise approved by Toronto Hydro.

### 3.1.1.2 Services Over Swimming Pools

Although the Ontario Electrical Safety Code allows electrical conductors to be located at adequate height, Toronto Hydro will **not** allow electrical conductors to be located above swimming pools.

Where a new swimming pool is to be installed it will be necessary to relocate, at the property owner's expense, any electrical conductors located directly over the proposed pool location.

Where overhead service conductors are in place over an existing swimming pool, Toronto Hydro will provide up to 30 metres of overhead service conductors, at no charge, to allow rerouting of the service. The property owner will pay any other costs.

### 3.1.2 Underground Services for Individual Residences

Customers requesting an underground service in an overhead area will be required to pay 100% connection costs for the underground service less the Standard Allowance for an overhead service.

The owner shall pay for any necessary road crossings.

The trench route must be approved by Toronto Hydro and is to follow the route indicated on the underground drawing supplied by Toronto Hydro. Any deviation from this route must be approved by Toronto Hydro. The Customer will be responsible for Toronto Hydro's costs associated with re-design and inspection services due to changes or deviations initiated by the Customer or its agents.

The owner will assure the provision for the service entrance and meter meets Toronto Hydro approval.

Where there are other services to be installed (e.g. gas, telephone, and cable) these shall be coordinated to avoid conflict with Toronto Hydro's underground cables. Toronto Hydro's installation will not normally commence until all other servicing and grading have been completed.

## Section 3 – CUSTOMER CLASS SPECIFIC

It is the responsibility of the owner or his/her contractor to obtain clearances from all of the utility companies (including Toronto Hydro) before digging.

It is the responsibility of the owner to contact Toronto Hydro to inspect each trench prior to the installation of Toronto Hydro's service cables.

The owner shall provide unimpeded access for Toronto Hydro to install the service.

The owner shall ensure that any intended tree planting has appropriate clearance from underground electrical plant.

### 3.2 General Service

***Include all items that apply specifically to general service Customers not covered under the other sections, and broken down (by load demand).***

- a) The Customer shall supply the following to Toronto Hydro well in advance of installation commencement:
  - Required in-service date
  - Proposed Service Entrance equipment's Rated Capacity (Amperes) and Voltage rating and metering requirements
  - Propose Total Load details in kVA and/or kW (Winter and Summer)
  - Locations of other services, gas, telephone, water and cable TV.
  - Details respecting heating equipment, air-conditioners, motor starting current limitation and any appliances which demand a high consumption of electricity
  - Survey plan and site plan indicating the proposed location of the service entrance equipment with respect to public rights-of-way and lot lines.
  - For General Service (50 – 999 kW and 1000 kW and above) Class Customers, electrical, architectural and/or mechanical drawings as required by Toronto Hydro.
- b) The Customer shall construct and install all civil infrastructure (including but not limited to poles, UG conduits, cable chambers, cable pull rooms, transformer room/vault/pad) on private property, that is deemed required by Toronto Hydro as part of its connection assets. All such civil infrastructures are to be in accordance with Toronto Hydro's current standards, practices, specifications and these Conditions of Service and are subject to Toronto Hydro's inspection and acceptance.

Should the Customer construct and install the civil infrastructure related to connection assets, Toronto Hydro shall not include the associated civil component in its calculation of Basic and Variable Connection Fees.

## Section 3 – CUSTOMER CLASS SPECIFIC

- c) Alternatively, the Customer may have Toronto Hydro construct and install the civil infrastructure that forms part of Toronto Hydro's connection assets on private property and the Customer will therefore be responsible for all costs via Basic Connection and Variable connection Fees (as applicable).
- d) Toronto Hydro is responsible for the maintenance and repairs of its connection assets but not the transformer room(s) or any other civil structure that is part of the Customer's building.
- e) When effecting changes the Customer shall maintain sufficient clearances between electrical equipment and buildings and other permanent structures to meet the requirements of the Ontario Electrical Safety Code and the *Occupational Health & Safety Act* and Regulations.
- f) It is the responsibility of the owner or his/her contractor to obtain clearances from all of the utility companies (including Toronto Hydro) before digging.
- g) Provided the existing civil infrastructure has been maintained in satisfactory conditions by the Customer, Toronto Hydro will undertake the necessary programs to enhance its distribution plant at its expense, as part of its planned activities during normal business hours, Monday to Friday.

When a Customer requests that such planned or maintenance activities which may include an electricity disconnection be done outside Toronto Hydro's normal business hours, then the Customer may be required to pay the incremental costs incurred by Toronto Hydro as a result thereof.

In the event that services or facilities to a Customer need to be restored as a result of these construction or maintenance activities by Toronto Hydro, they will be restored to an equivalent condition.

In addition, Toronto Hydro will carry out the necessary construction and electrical work to maintain existing supplies by providing standard overhead or underground supply services to Customers affected by Toronto Hydro's construction activities. If a Customer requests special construction beyond the normal Toronto Hydro standard installation in accordance with the program, the Customer shall pay the additional cost associated therewith, including engineering and administration fees.

- h) Toronto Hydro shall install, maintain, and replace, at its own cost, all those civil infrastructures that are part of its main distribution system (i.e. not including connection assets) that may be located on private property and which serve Customers that are located outside of that private property. These Toronto Hydro civil infrastructures will require an easement.



## Section 3 – CUSTOMER CLASS SPECIFIC

- i) The Customer shall install, maintain, and replace, at its own cost, all those civil infrastructures located on private property that are required to house the connection assets (i.e. the electrical equipment owned by Toronto Hydro) that serve Customers that are located on that private property.

Where changes to Customer's civil infrastructure are part of a Toronto Hydro initiated enhancement project, Toronto Hydro may absorb the costs of modifications to the Customer's civil infrastructure, provided the existing civil infrastructure has been maintained in satisfactory condition by the Customer.

- j) The Customer shall maintain in proper working condition all Customer-Owned service disconnecting devices (such as main switch and secondary breakers) that Toronto Hydro may need to operate to ensure the safe operation and maintenance of the distribution system. Toronto Hydro shall not be liable for any loss or damage arising from Toronto Hydro's operation of Customer-Owned service disconnecting devices and specifically will not be liable if a switch/breaker or other Customer equipment were to become inoperative or get damaged during or after its operation. Toronto Hydro may request that a waiver form be signed by the Customer acknowledging Toronto Hydro's limited liability in such circumstances.

Refer to Tables 1.1, 1.2 and 1.3 and Table 2 of Section 5 of these Conditions of Service for Point of Demarcation, Standard Allowance and Connection Fees for General Service.

### 3.2.1 Electrical Requirements (as applicable)

For low voltage supply, the Customer's service entrance equipment shall be suitable to accept conductors installed by Toronto Hydro. The Customer's cables shall be brought to a point determined by Toronto Hydro for connection to Toronto Hydro's supply.

The owner is required to supply and maintain an electrical room of sufficient size to accommodate the service entrance and meter requirements of the tenants and provide clear working space in accordance with the Ontario Electrical Safety Code.

In order to allow for an increase in load, the owner shall provide spare wall space so that at least 30% of the Customers supplied through meter sockets can accommodate meter cabinets at a later date.

Access doors, panels, slabs and vents shall be kept free from obstructing objects. The Customer will provide unimpeded and safe access to Toronto Hydro at all times for the purpose of installing, removing, maintaining, operating or changing transformers and associated equipment.

## Section 3 – CUSTOMER CLASS SPECIFIC

The electrical room must be located to provide safe access from the outside or main hallway, and not from an adjoining room, so that it is readily accessible to Toronto Hydro's employees and agents at all hours to permit meter reading and to maintain electric supply. This room must be locked. The owner shall install a pad bolt with mortise strike (Ackland Hardware, Cat. No. 199-10 or equivalent). Toronto Hydro shall provide a secure arrangement so that Toronto Hydro's padlock can be installed as well as the Customer's lock.

The electrical room shall not be used for storage or contain equipment foreign to the electrical installation within the area designated as safe working space. All stairways leading to electrical rooms above or below grade shall have a handrail on at least one side as per the Ontario Building Code and shall be located indoors.

Outside doors providing access to electrical rooms must have at least 150 mm clearance between final grade and the bottom of the door. Electrical rooms 'on' or 'below' grade must have a drain including a "P" trap complete with a non-mechanical priming device and a backwater valve connected to the sanitary sewer. The electrical room floor must slope 6 mm/300 mm or 2% towards the drain.

The electrical room shall have a minimum ceiling height of 2.2 m clear, be provided with adequate lighting at the working level, in accordance with Illuminating Engineering Society (I.E.S.) standards, and a 120 V convenience outlet. The lights and convenience outlet noted above and any required vault circuit shall be supplied from a panel located and clearly identified in the electrical room.

### 3.2.2 Underground Service Requirements

The Customer shall construct or install all civil infrastructure (including but not limited to poles, UG conduits, cable chambers, cable pull rooms, transformer room/vault/pad) on private property, that is deemed required by Toronto Hydro as part of its Connection Assets. All civil infrastructures are to be in accordance with Toronto Hydro's current standards, practices, specifications and these Conditions of Service and are subject to Toronto Hydro's inspection/acceptance.

The Customer is responsible to maintain all its structural and mechanical facilities on private property in a safe condition satisfactory to Toronto Hydro.

The trench route must be approved by Toronto Hydro. Any deviation from this route must also be approved by Toronto Hydro. The Customer will be responsible for Toronto Hydro's costs associated with re-design and inspection services due to changes or deviations initiated by the Customer or its agents or any other body having jurisdiction.

It is the responsibility of the owner or his/her contractor to obtain clearances from all of the utility companies (including Toronto Hydro) before digging.

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It is the responsibility of the owner to contact Toronto Hydro to inspect each trench prior to the installation of Toronto Hydro's cables.

### 3.3 General Service (Above 50 kW)

***Include all items that apply specifically to General Service Customers (above 50 kW) not covered under the General section. Describe the criteria to determine how a Customer is classified as being above 50 kW.***

All non-residential Customers with an average peak demand between 50 kW and 999 kW over the past twelve months are to be classified as General Services above 50 kW.

#### 3.3.1 New Residential Subdivisions or Multi-Unit Developments

Customers of new Residential Subdivisions involving the construction of new city streets and roadways, or of Multi-unit Developments that are supplied from primary distribution systems built along private streets, are treated as Non-Residential Class Customers and will be subject to capital contribution for “expansion” work, in addition to any applicable Connection Fees in accordance with Sections 2.1 – 2.1.2.6.

All other Residential Subdivisions or Multi-unit complexes will follow the general terms and conditions for Connection Fees and capital contribution for the appropriate General Class Customers.

In all cases, all of the electrical service must be constructed to Toronto Hydro's standards and in compliance with the Ontario Electrical Safety Code, applicable laws, regulations and codes.

All design work including service locations and trench routes must be approved by Toronto Hydro.

#### 3.3.2 Electrical Requirements

Where the size of the Customer's electrical service warrants, as determined by Toronto Hydro, the Customer will be required to provide facilities on its property and an easement as required (i.e. on the premises to be served), acceptable to Toronto Hydro, to house the necessary transformer(s) and/or switching equipment. Toronto Hydro will provide planning details upon application for service.

Toronto Hydro will supply, install and maintain the electrical transformation equipment within the transformer vault or pad supplied by the Customer, at its expense, on the property. Toronto Hydro has the right to have this equipment connected to its distribution system.

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The owner is required to supply and maintain an electrical room of sufficient size to accommodate the service entrance and meter requirements of the tenants and provide clear working space in accordance with the Ontario Electrical Safety Code.

In order to allow for an increase in load, the owner shall provide spare wall space so that at least 30% of the Customers supplied through meter sockets can accommodate meter cabinets at a later date.

The electrical room must be separate from, but adjacent to, the transformer vault. It must be located to provide safe access from the outside or main hallway, and not from an adjoining room, so that it is readily accessible to Toronto Hydro's employees and agents at all hours to permit meter reading and to maintain electric supply. This room must be locked. The owner shall install a pad bolt with mortise strike (Ackland Hardware, Cat. No. 199-10 or equivalent). Toronto Hydro shall provide a secure arrangement so that Toronto Hydro's padlock can be installed as well as the Customer's lock.

The electrical room shall not be used for storage or contain equipment not related to the electrical installation within the area designated by Toronto Hydro as safe working space. All stairways leading to electrical rooms above or below grade shall have a handrail on at least one side as per the Ontario Building Code, and shall be located indoors.

Outside doors providing access to electrical rooms must have at least 150 mm clearance between final grade and the bottom of the door. Electrical rooms 'on' or 'below' grade must have a drain including a "P" trap complete with a non-mechanical priming device and a backwater valve connected to the sanitary sewer. The electrical room floor must slope 6 mm/300 mm or 2% towards the drain.

The electrical room shall have a minimum ceiling height of 2.2 m clear, be provided with adequate lighting at the working level, in accordance with Illuminating Engineering Society (I.E.S.) standards, and a 120 V convenience outlet. The lights and convenience outlet noted above and any required vault circuit shall be supplied from a panel located and clearly identified in the electrical room.

The owner shall identify each tenant's metered service by address and/or unit number in a permanent and legible manner. The identification shall apply to all main switches, breakers and to all meter cabinets or meter mounting devices that are not immediately adjacent to the switch or breaker. The electrical room shall be visibly identified from the outside.

### 3.3.3 Technical Information

Where project drawings are required for Toronto Hydro's approval, for items under Toronto Hydro's jurisdiction, the Customer or its authorized representative must

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## Section 3 – CUSTOMER CLASS SPECIFIC

ensure that proposal drawings are fully in compliance with Toronto Hydro's standards. Approval of project drawings by Toronto Hydro shall not relieve the Customer of its responsibility in respect of full compliance with Toronto Hydro's standards and all applicable laws, regulations and codes. In all cases, one copy of all relevant drawings must be submitted to Toronto Hydro. Where the Customer requires an approved copy to be returned, two copies of all plans must be submitted.

Prior to the preparation of a design for a service, the Customer will provide the following information to Toronto Hydro as well as the approximate date that the Customer requires the electrical service and the due date that Toronto Hydro's civil construction drawings are required in order to co-ordinate with site construction.

### **3.3.3.1 Site & Grading Plans**

Indicate the lot number, plan numbers and, when available, the street number. The site plan shall show the location of the Building on the property relative to the property lines, any driveways and parking areas and the distance to the nearest intersection. All elevations shall be shown for all structures and proposed installations.

### **3.3.3.2 Mechanical Servicing Plan**

Show the location on the property of all services proposed and/or existing such as water, gas, storm and sanitary sewers, telephone, et cetera.

### **3.3.3.3 Floor Plan**

Show the service location, other services location, driveway, parking and indicate the total gross floor area of the building.

### **3.3.3.4 Duct Bank Location**

Show the preferred routing of the underground duct bank on the property. This is subject to approval by Toronto Hydro.

### **3.3.3.5 Transformer Location**

Indicate the preferred location on the property for the high voltage transformation. This is subject to approval by Toronto Hydro. Transformation will be vault, pad, submersible type or polemounted depending on the project load requirements.

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## Section 3 – CUSTOMER CLASS SPECIFIC

### 3.3.3.6 Electrical Meter Room

Indicate preferred location in the building of the meter room and the main switchboard.

### 3.3.3.7 Single Line Diagram

Show the main service entrance switch capacity, the required supply voltage, and the number and capacity of all sub-services showing provision for metering facilities, as well as the connected load breakdown for lighting, heating, ventilation, air conditioning et cetera. Also, indicate the estimated initial kilowatt demand and ultimate maximum demands. Provide protection equipment information where coordination is required between Toronto Hydro and Customer owned equipment. Fusing will be determined later by Toronto Hydro to co-ordinate with the transformer size selected.

### 3.3.3.8 Switchgear

Submit three copies of any service entrance switchgear to be installed for Toronto Hydro's approval, including interlocking arrangement if required.

### 3.3.3.9 Substation Information

Where a Customer-Owned substation is to be provided, the owner will be required to provide the following in addition to the site information outlined above.

- All details of the transformer, including kVA capacity, short circuit rating (in accordance with 3.3.4.1), primary and secondary voltages, impedance and cooling details.
- A site plan of the transformer station showing the equipment layout, proposed primary connections, grounding and fence details, where applicable.
- A coordination study for protection review.

## 3.3.4 Technical Considerations

### 3.3.4.1 Short Circuit Ratings

16000/27600 V Supply: The Customer's protective equipment shall have a three phase, short circuit rating of 800 MVA symmetrical. The asymmetrical current is 27,000 A (1.6 factor used).

## Section 3 – CUSTOMER CLASS SPECIFIC

8000/13800 V Supply: The Customer's protective equipment shall have a three phase, short circuit rating of 500 MVA symmetrical. The asymmetrical current is 34,000 A (1.6 factor used.)

2400/4160 V Supply: The Customer's protective equipment shall have a three phase, short circuit rating of 250 MVA symmetrical or 56,000 A asymmetrical (1.6 factor used).

347/600 V Supply: The Customer's protective equipment shall have a minimum short circuit rating of 50,000 A.

347/600 V Supply from network system: Available short circuit current may be obtained upon request to Toronto Hydro.

120/208 V Supply: Available short circuit current may be obtained upon request to Toronto Hydro.

### 3.3.4.2 Primary Fusing

All equipment connected to the Toronto Hydro's distribution system shall satisfy the short circuit ratings specified in clause 3.3.4.1. The Customer and/or the Customer's consultant shall specify the fuse link rating and demonstrate coordination with Toronto Hydro's upstream protection including station breakers and/or distribution fuses. The Customer shall submit, at its expense, a coordination study to Toronto Hydro for verification to ensure coordination with upstream protection including station breakers and/or distribution fuses. The Customer shall maintain an adequate supply of spare fuses to ensure availability for replacement in the event of a fuse blowing.

### 3.3.4.3 Ground Fault Interrupting

Where ground fault protection is required to comply with the Ontario Electrical Safety Code, the method and equipment used shall be compatible with Toronto Hydro's practice of grounding transformer neutral terminals in vaults. Zero sequence sensing will normally apply. Where ground strap sensing is used, the ground sensing devices shall be set to operate at 600 A if transformer and switchboard buses are not bonded and 400 A if buses are bonded. Ground fault protection proposals for dual secondary supply arrangements shall be submitted to Toronto Hydro for approval, before construction of the switchboard.

### 3.3.4.4 Lightning Arresters

Customer installations that are directly supplied from Toronto Hydro's primary underground system are not protected with lightning arresters. If the Customer

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wishes to install lightning arresters they shall be located on the load side of the first protective devices. For Customer installations that are supplied from Toronto Hydro's primary overhead system, Toronto Hydro, at its expense, will install lightning arresters at the pole and the Customer, at its expense, may install lightning arresters in the switchgear on the load side of the incoming disconnect device. The mimic diagram shall indicate the presence of such devices in the switchgear.

### 3.3.4.5 Basic Impulse Level (B.I.L.)

The Customer's apparatus shall have a minimum Basic Impulse Level in accordance with the following:

2400/4160 supply voltage - 60 kV B.I.L.

8000/13800 supply voltage - 95 kV B.I.L.

16000/27600 supply voltage - Delta primary 150 kV B.I.L.

16000/27000 supply voltage - Grounded Wye primary 125 kV B.I.L.

### 3.3.4.6 Unbalanced Loads

On three-phase service, the unbalance due to single-phase loads shall not exceed 20% of the Customer's balanced phase loading expressed in kilowatts.

## 3.4 General Service (Above 1000 kW)

***Include all items that apply specifically to General Service Customers (above 1000 kW) not covered under the General section. Describe the criteria to determine how a Customer is classified as being above 1000 kW.***

All non-residential Customers with an average monthly demand of 1000 kW or higher, averaged over twelve consecutive months, as determined by Toronto Hydro, are to be classified as Customers over 1000 kW.

### 3.4.1 Electrical Requirements

Where a primary service is provided to a Customer-Owned substation, the Customer shall install and maintain such equipment in accordance with all applicable laws, codes, regulations, and Toronto Hydro's Customer Owned Substation requirements for high voltage installations. Toronto Hydro will provide planning details upon application for service.

Customer-Owned substations are a collection of transformers and switchgear located in a suitable room or enclosure owned and maintained by the Customer, and supplied at primary voltage: i.e. the Supply Voltage is greater than 750 volts.



## Section 3 – CUSTOMER CLASS SPECIFIC

High voltage distribution services are three-phase, three-wire or four-wire depending on the supply feeder. The Customer is required to bring out a neutral conductor for connection to the system neutral. If not required for Customer's use, this neutral shall be terminated to the Customer's station ground system. Toronto Hydro will provide Customer interface details and requirements for high voltage supplies.

Customer must provide transformers having voltage taps in their primary windings and configurations as shown in Table 4 in Section 5 of these Conditions of Service for all new, upgraded and refurbished installations. Transformers other than listed in Table 4 may be considered in like-for-like repair but shall not be connected without the specific written approval of Toronto Hydro.

Customer-Owned substations must be inspected by both the Electrical Safety Authority and Toronto Hydro. The owner will provide a pre-service inspection report to Toronto Hydro. A contractor acceptable to Toronto Hydro will prepare the certified report to Toronto Hydro.

The Customer shall inspect their own substations at minimum intervals of one year for outdoor substations and three years for indoor substations. Where an electricity disconnection may be required at Customer-Owned substations to perform inspections, maintenance, and installations, the Customer shall arrange a time for a disconnection by Toronto Hydro. For Toronto Hydro to perform the disconnection, Customers are required to pay a fair and reasonable charge based on cost recovery principles.

### 3.4.2 Technical Information and Considerations

The same information and considerations apply as for other General Service Customers. Refer to Subsection 3.3.3 and 3.3.4 for applicable requirements.

### 3.5 Embedded Generation Facilities

***This section should include all terms and conditions applicable to the connection of embedded generation facility to the distributor (e.g., application process, engineering standards and operating agreements).***

For the terms and conditions applicable to the connection of a generation facility on the Toronto Hydro distribution system refer to the requirements outlined in Section 6, Reference #3 – “Toronto Hydro Distributed Generation Requirements”.

### 3.6 Wholesale Market Participant

***Criteria for a Customer that is classified as being a Market Participant needs to be established. This section should describe any specific requirements for Customers that also are Market Participants.***

Refer to the requirements outlined in Section 6, Reference #3 – “Toronto Hydro

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## Section 3 – CUSTOMER CLASS SPECIFIC

Distributed Generation Requirements”.

### 3.7 Embedded Distributor

***This section should include all terms and conditions applicable to the connection of an embedded distributor.***

All embedded distributors within the service jurisdiction of Toronto Hydro are required to inform Toronto Hydro of their status in writing 30 days prior to the supply of electricity from Toronto Hydro. The terms and conditions applicable to the connection of an embedded distributor shall be included in the Connection Agreement with Toronto Hydro.

An embedded distributor shall enter into a Connection Agreement in a form acceptable to Toronto Hydro. Until such time as the embedded distributor executes such a Connection Agreement with Toronto Hydro, the embedded distributor shall be deemed to have accepted and agreed to be bound by all of the terms in these Conditions of Service that apply to such embedded distributor.

### 3.8 Unmetered Connections

***This section will include all terms and conditions applicable to unmetered connection.***

Toronto Hydro, at its sole discretion, may provide for new service connections without a meter being installed. These loads would generally be small in size, non-variable, and supply a single device. Examples of services that are considered for unmetered supply include traffic & railway crossing signals, pedestrian x-walk signals/beacons, bus shelters, telephone booths, CATV amplifiers, TTC switching devices and other miscellaneous small fixed loads. Other loads less than 2 kW may also be considered for unmetered connections. Toronto Hydro will not provide a service connection to Customers requesting an unmetered supply connection for an electrical outlet (e.g. receptacle, GFI, and GFCI) installation.

In all cases, the Customer shall contact Toronto Hydro for service supply requirements. The Customer shall provide manufacturer information and documentation with regard to electrical demand and expected hours of operation of the proposed unmetered load. Toronto Hydro may require, at its sole discretion, that the Customer provide at its own cost, a load study acceptable to Toronto Hydro in order to determine energy consumption.

The Customer shall notify Toronto Hydro prior to making any changes to existing equipment or adding new equipment that is to be supplied from the Toronto Hydro distribution system.

Where installations involve Toronto Hydro owned poles, the method and location of

## Section 3 – CUSTOMER CLASS SPECIFIC

attachment are subject to the approval of Toronto Hydro. Toronto Hydro may, in its sole discretion, require the Customer to enter into an agreement with Toronto Hydro governing such attachments.

The Customer shall refer to Tables 9.1 to 9.4 in Section 5 of these Conditions of Service which describes the processes (including billing, data updating and validation), rights and obligations between Toronto Hydro and an unmetered load Customer.

The Customer shall construct, at its own expense, the civil infrastructure (including but not limited to poles, underground conduits, tap boxes) on public road allowances or private property that is deemed required by Toronto Hydro to house or support Toronto Hydro's electrical equipment. This civil infrastructure shall be in accordance with Toronto Hydro's current standards, practices, specifications and these Conditions of Service and are subject to inspection and acceptance by Toronto Hydro. After energization the Customer assets between the supply connection to the demarcation point shall be owned and maintained by Toronto Hydro.

Toronto Hydro will provide, at the Customer's expense, for all breakouts of the Toronto Hydro civil infrastructure (i.e. cable chambers, vaults), which may be required to make the service connection. The Customer's service connection equipment shall be able to accept conductors installed by Toronto Hydro. The Customer shall bring its cables to a point determined by Toronto Hydro.

Toronto Hydro shall make all new connections and final disconnections to and from Toronto Hydro's distribution system. The Customer shall pay the applicable Connection Fees as outlined in Sections 3.8.1 to 3.8.3 and Table #3. Where "variable connection fees" apply, Toronto Hydro shall provide an estimate of the proposed work to the unmetered Customer. In turn, the unmetered Customer shall provide a response to proceed or not with the proposed work to Toronto Hydro within two weeks.

The Customer shall maintain its civil infrastructure in a safe condition satisfactory to Toronto Hydro. Toronto Hydro will undertake the necessary programs to maintain and enhance its distribution plant. However, if during the course of Toronto Hydro's work, relocation of Customer equipment is necessary, the Customer shall reimburse Toronto Hydro for all costs incurred for in relocating Customer's infrastructure. More specifically, Toronto Hydro will provide standard overhead or underground supply services to unmetered Customers affected by Toronto Hydro's construction activities at its own cost. However, where the unmetered Customer requests special construction beyond the normal Toronto Hydro standard installation, the unmetered Customer shall pay the additional cost, including engineering and administration fees.

Request for payment shall be subject to Toronto Hydro having provided the

## Section 3 – CUSTOMER CLASS SPECIFIC

unmetered Customer with adequate advance notice, prior to effecting the relocation. The unmetered Customer shall respond within two weeks of its intended plan to modify, upgrade, or remove its plant. Customer's unmetered loads include, but are not limited to Sections 3.8.1 to 3.8.3.

Toronto Hydro requires information related to the number of Customers and loads, including unmetered loads. This information provides inputs for the models used to allocate the costs of operating the distribution system to each of Toronto Hydro's rate classes and in part determines the rates to be applied to collect these costs from each Customer class. To the extent that this information results in significant changes in allocated costs to the unmetered load classes, Toronto Hydro will endeavour to communicate these potential changes to its unmetered load Customers either through direct communication (e.g., phone, email or in-person contact between Toronto Hydro personnel and Customer representatives), through informational mailings (e.g., bill inserts), or through information provided on Toronto Hydro's website.

### **3.8.1 Street Lighting**

All services supplied to street lighting equipment owned by or operated for a municipality or the Province of Ontario shall be classified as Street Lighting Service.

In addition to complying with these Conditions of Service, all Street Lighting plant, facilities, or equipment owned by the Customer must comply with all Electrical Safety Authority (ESA) requirements.

The method and location of underground supply to Street Lighting plant from the Toronto Hydro distribution system will be established for each application through consultation with Toronto Hydro.

Charges related to the Connections of Street Lighting will be recovered via a Basic Connection Fee for a Standard Allowance/Basic Connection and a Variable Connection Fee (if applicable) consistent with the Ownership Demarcation Point defined in Table 3 in Section 5 of these Conditions of Service for various Street Lighting Distribution systems.

### **3.8.2 Traffic & Railway Crossing Signals, Pedestrian X-Walk Signals/Beacons, Bus Shelters, Telephone Booths, CATV Amplifiers, TTC Switching Devices, and Miscellaneous Small Fixed Loads**

The above service types shall be classified as Unmetered Scattered Load Class Customers. Each unmetered location is reviewed individually and is connected to Toronto Hydro's low voltage distribution system. Electrical Safety Authority (ESA) "Authorization to Connect" is required prior to connecting the service.

## Section 3 – CUSTOMER CLASS SPECIFIC

The nominal service voltage will be 120 Volts, single phase. The method and location of supply will be established for each application through consultation with Toronto Hydro. Supply connections to the municipal or the Province of Ontario's street lighting systems will not be permitted.

The ownership demarcation point for Customer electrical equipment attached to poles owned by Toronto Hydro is as follows:

- For Overhead Supply - the top of the Customer's service standpipe/mast.
- For Underground Supply - the line side of the Customer's circuit breaker panel on the pole (effective as of January 9, 2012).

The ownership demarcation point for Customer-Owned electrical equipment, which is not attached to Toronto Hydro poles, is at the Customer's disconnect enclosure attached to its structure (effective as of January 9, 2012), or at the top of the Customer's service standpipe/mast.

Toronto Hydro may connect new Unmetered Scattered Load Customers using either an overhead or an underground supply. Overhead supply connections fall into two categories:

- 1) The source connection is made at an existing Toronto Hydro supply pole and the service mast is located on the same supply pole; or
- 2) The source connection is made at an existing Toronto Hydro distribution supply pole or line, without any extension of the secondary bus, and the service mast is located within 30 m of the existing pole or lines.

Toronto Hydro will recover the cost of the above two categories of overhead supply connections from the Customer via an Unmetered Basic Connection cost and if necessary, a Variable Connection cost. The Basic Connection cost is different depending on the category of overhead supply connection as described in Table 2 of Section 5 of these Conditions of Service. Variable Connection costs are charged for installing assets that go beyond the assets included in the Basic Connection and are recovered on an actual cost basis. Both the Basic Connection and Variable Connection costs are charged to the Customer on a per location/installation basis.

For an underground supply connection, Toronto Hydro will recover the actual costs of the connection from the Customer. (As of May 1, 2014, Toronto Hydro does not define a basic connection or charge a Basic Connection cost for underground supply connections.)

Re-design and inspection services are at the expense of the Customer. The Customer is responsible for maintaining and repairing its equipment and/or facilities.

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## Section 3 – CUSTOMER CLASS SPECIFIC

### 3.8.3 Other Loads (<2 kW) - Decorative Lighting and Tree Lighting Services

This section applies to the distribution and supply of electrical energy for decorative lighting. These installations are typically owned and maintained by a local Business Improvement Association (BIA) as a way to improving streetscape or for specific festive occasions. In addition to complying with these Conditions of Service, all such installations must comply with the Ontario Electric Safety Code and are subject to the approval of ESA.

This section does not apply to decorative lighting that is owned by, or operated for, a municipality or the Province of Ontario.

Decorative Lighting and Tree Lighting connected to Toronto Hydro's distribution system shall have the same terms and conditions as outlined in Section 3.8.2 of these Conditions of Service.

## Section 4 – GLOSSARY OF TERMS

### 4 GLOSSARY OF TERMS

*The Conditions of Service document may contain a variety of terms that should be defined in the context of this document. Where possible, glossary terms should reflect definitions in existing documents that apply to the distributor, such as the Distribution System Code, the Distributor's licence and Standard Supply Service Code. The text of the Conditions of Service document should be used to expand on these definitions as applicable to the Distributor.*

Sources for definitions:

*Electricity Act, 1998, Schedule A, Section 2, Definitions*

MR	Market Rules for the Ontario Electricity Market, Chapter 11, Definitions
DSC	Distribution System Code Definitions
RSC	Retail Settlement Code Definitions
EDL	Electricity Distribution Licence

“Accounting Procedures Handbook” means the handbook approved by the Board and in effect at the relevant time, which specifies the accounting records, accounting principles and accounting separation standards to be followed by the distributor; (DSC)

“Affiliate Relationships Code” means the code, approved by the Board and in effect at the relevant time, which among other things, establishes the standards and conditions for the interaction between electricity distributors or transmitters and their respective affiliated companies; (DSC)

“ancillary services” means services necessary to maintain the reliability of the IESO-controlled grid; including frequency control, voltage control, reactive power and operating reserve services; (MR, DSC)

"apartment building" means a structure containing four or more dwelling units having access from an interior corridor system or common entrance;

"apparent power" means the total power measured in kiloVolt Amperes (kVA);

"application for service" means the agreement or contract with Toronto Hydro under which electrical service is requested;

“bandwidth” means a distributor’s defined tolerance used to flag data for further scrutiny at the stage in the VEE (validating, estimating and editing) process where a current reading is compared to a reading from an equivalent historical billing period. For example, a 30 percent bandwidth means a current reading that is either 30 percent lower or 30 percent higher than the measurement from an equivalent historical billing period will be identified by the VEE process as requiring further scrutiny and verification; (DSC)

## Section 4 – GLOSSARY OF TERMS

"billing demand" means the metered demand or connected load after necessary adjustments have been made for power factor, intermittent rating, transformer losses and minimum billing. A measurement in kiloWatts (kW) of the maximum rate at which electricity is consumed during a billing period;

"Board" or "OEB" means the Ontario Energy Board; (A, DSC)

"building" means a building, portion of a building, structure or facility;

"competitive sector multi-unit residential service" means a service where electricity is used exclusively for residential purposes in a multi-unit residential building, where unit metering is provided using technology that is substantially similar to that employed by competitive sector sub-metering providers;

"complex metering installation" means a metering installation where instrument transformers, test blocks, recorders, pulse duplicators and multiple meters may be employed; (DSC)

"Conditions of Service" means the document developed by a distributor in accordance with subsection 2.4 of the Code that describes the operating practices and connection rules for the distributor; (DSC)

"connection" means the process of installing and activating connection assets in order to distribute electricity; (DSC)

"Connection Agreement" means an agreement entered into between a distributor and a person connected to its distribution system that delineates the conditions of the connection and delivery of electricity to or from that connection; (DSC)

"connection assets" means that portion of the distribution system used to connect a Customer to the existing main distribution system, and consists of the assets between the point of connection on a distributor's main distribution system and the ownership demarcation point with that Customer; (DSC)

"Consumer" means a person who uses, for the person's own consumption, electricity that the person did not generate; (A, MR, DSC)

"Customer" means a generator or Consumer whose facilities are connected to or are intended to be connected to a distributor's distribution system. This includes developers of residential or commercial sub-divisions; (DSC)

"demand" means the average value of power measured over a specified interval of time, usually expressed in kilowatts (kW). Typical demand intervals are 15, 30 and 60 minutes; (DSC)



## Section 4 – GLOSSARY OF TERMS

“demand meter” means a meter that measures a Consumer’s peak usage during a specified period of time; (DSC)

"developer" means a person or persons owning property for which new or modified electrical services are to be installed;

“disconnection” means a deactivation of connection assets that results in cessation of distribution services to a Consumer; (DSC)

“distribute”, with respect to electricity, means to convey electricity at voltages of 50 kilovolts or less; (A, MR, DSC)

“distribution losses” means energy losses that result from the interaction of intrinsic characteristics of the distribution network such as electrical resistance with network voltages and current flows; (DSC)

“distribution loss factor” means a factor or factors by which metered loads must be multiplied such that when summed equal the total measured load at the supply point(s) to the distribution system; (RSC)

“distribution services” means services related to the distribution of electricity and the services the Board has required distributors to carry out; (RSC, DSC)

“distribution system” means a system for distributing electricity, and includes any structures, equipment or other things used for that purpose. A distribution system is comprised of the main system capable of distributing electricity to many Customers and the connection assets used to connect a Customer to the main distribution system; (A, MR, DSC)

“Distribution System Code” means the code, approved by the Board, and in effect at the relevant time, which, among other things, establishes the obligations of the distributor with respect to the services and terms of service to be offered to Customers and retailers and provides minimum technical operating standards of distribution systems; (DSC)

“distributor” means a person who owns or operates a distribution system; (A, MR, DSC)

"duct bank" means two or more ducts that may be encased in concrete used for the purpose of containing and protecting underground electric cables;

“*Electricity Act*” means the *Electricity Act, 1998*, S.O. 1998, c.15, Schedule A; (MR, EDL, DSC)

## Section 4 – GLOSSARY OF TERMS

“Electrical Safety Authority” or “ESA” means the person or body designated under the *Electricity Act* regulations as the Electrical Safety Authority; (DSC)

"electric service" means the Customer's conductors and equipment for energy from Toronto Hydro;

“eligible low-income customer” means: (a) a residential electricity consumer who has been approved for the Ontario Electricity Support Program, or (b) a residential electricity consumer who has been approved for the Low-Income Energy Assistance Program; (based on DSC section 1.2)

“embedded distributor” means a distributor that is provided electricity by a host distributor; (RSC, DSC)

“embedded generation facility” means a generation facility which is not directly connected to the IESO-controlled grid but instead is connected to a distribution system, and has the extended meaning given to it in section 1.9; (DSC)

“emergency” means any abnormal system condition that requires remedial action to prevent or limit loss of a distribution system or supply of electricity that could adversely affect the reliability of the electricity system; (DSC)

“emergency backup generation facility” means a generation facility that has a transfer switch that isolates it from a distribution system; (DSC)

"energy" means the product of power multiplied by time, usually expressed in kilowatt-hours (kWH);

“*Energy Competition Act*” means the *Energy Competition Act, 1998*, S.O. 1998, c. 15; (MR)

"energy diversion" means the electricity consumption unaccounted for but that can be quantified through various measures upon review of the meter mechanism, such as unbilled meter readings, tap off load(s) before revenue meter or meter tampering;

“enhancement” means a modification to the main distribution system that is made to improve system operating characteristics such as reliability or power quality or to relieve system capacity constraints resulting, for example, from general load growth, but does not include a renewable enabling improvement; (DSC)

“expansion” means a modification or addition to the main distribution system in response to one or more requests for one or more additional customer connections that otherwise could not be made, for example, by increasing the length of the main distribution system, and includes the modifications or additions to the main

## Section 4 – GLOSSARY OF TERMS

distribution system identified in section 3.2.30 but in respect of a renewable energy generation facility excludes a renewable enabling improvement; (DSC)

"extreme operating conditions" means extreme operating conditions as defined in the Canadian Standards Association ("CSA") Standard CAN3-C235-87 (latest edition);

"four-quadrant interval meter" means an interval meter that records power injected into a distribution system and the amount of electricity consumed by the Customer; (DSC)

"general service" means any service supplied to premises other than those designated as Residential and less than 50kW, Large User, or Municipal Street Lighting. This includes multi-unit residential establishments such as apartments buildings supplied through one service (bulk-metered);

"generate", with respect to electricity, means to produce electricity or provide ancillary services, other than ancillary services provided by a transmitter or distributor through the operation of a transmission or distribution system; (A, DSC)

"generation facility" means a facility for generating electricity or providing ancillary services, other than ancillary services provided by a transmitter or distributor through the operation of a transmission or distribution system, and includes any structures, equipment or other things used for that purpose; (A, MR, DSC)

"generator" means a person who owns or operates a generation facility; (A, MR, DSC)

"geographic distributor," with respect to a load transfer, means the distributor that is licensed to service a load transfer Customer and is responsible for connecting and billing the load transfer Customer; (DSC)

"good utility practice" means any of the practices, methods and acts engaged in or approved by a significant portion of the electric 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 practices, reliability, safety and expedition. Good utility practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in North America; (MR, DSC)

"host distributor" means a distributor who provides electricity to an embedded distributor; (DSC)

## Section 4 – GLOSSARY OF TERMS

"house service" means that portion of the electrical service in a multiple occupancy facility which is common to all occupants, (i.e. parking lot lighting, sign service, corridor and walkway lighting, et cetera);

"IEC" means International Electrotechnical Commission;

"IEEE" means Institute of Electrical and Electronics Engineers;

"IESO" means the Independent Electricity System Operator;

"IESO-controlled grid" means the transmission systems with respect to which, pursuant to agreements, the IESO has authority to direct operation; (A, DSC)

"interval meter" means a meter that measures and records electricity use on an hourly or sub-hourly basis; (RSC, DSC)

"large user" means a Customer with a monthly peak demand of 5000 kW or greater, regardless the demand occurs in the peak or off-peak periods, averaged over 12 months;

"load factor" means the ratio of average demand for a designated time period (usually one month) to the maximum demand occurring in that period;

"load transfer" means a network supply point of one distributor that is supplied through the distribution network of another distributor and where this supply point is not considered a wholesale supply or bulk sale point; (DSC)

"load transfer Customer" means a Customer that is provided distribution services through a load transfer; (DSC)

"main distribution system" means a distribution system less the connection assets;

"main service" refers to Toronto Hydro's incoming cables, bus duct, disconnecting and protective equipment for a Building or from which all other metered sub-services are taken;

"market participant" has the meaning prescribed in the Market Rules;

"Market Rules" means the rules made under section 32 of the *Electricity Act*; (MR, EDL, DSC)

"Measurement Canada" means the Special Operating Agency established in August 1996 by the *Electricity and Gas Inspection Act, 1980-81-82-83*, c. 87., and Electricity and Gas Inspection Regulations (SOR/86-131; (DSC)

## Section 4 – GLOSSARY OF TERMS

“meter service provider” means any entity that performs metering services on behalf of a distributor or generator; (DSC)

“meter installation” means the meter and, if so equipped, the instrument transformers, wiring, test links, fuses, lamps, loss of potential alarms, meters, data recorders, telecommunication equipment and spin-off data facilities installed to measure power past a meter point, provide remote access to the metered data and monitor the condition of the installed equipment; (RSC, DSC)

"meter socket" means the mounting device for accommodating a socket type revenue meter;

“metering services” means installation, testing, reading and maintenance of meters; (DSC)

“MIST meter” means an interval meter from which data is obtained and validated within a designated settlement timeframe. MIST refers to “Metering Inside the Settlement Timeframe;” (RSC, DSC)

“MOST meter” means an interval meter from which data is only available outside of the designated settlement timeframe. MOST refers to “Metering Outside the Settlement Timeframe;” (RSC, DSC)

"multiple dwelling" means a Building which contains more than one self-contained dwelling unit;

"municipal street lighting" means all services supplied to street lighting equipment owned and operated for a municipal corporation;

“non-competitive electricity costs” means costs for services from the IESO that are not deemed by the Board to be competitive electricity services plus costs for distribution services, other than Standard Supply Service (SSS); (RSC)

"normal operating conditions" means the operating conditions comply with the standards set by the Canadian Standards Association ("CSA") Standard CAN3-C235-87 (latest edition);

“Ontario Electrical Safety Code” means the code adopted by O. Reg. 164/99 as the Electrical Safety Code; (DSC)

“*Ontario Energy Board Act*” means the *Ontario Energy Board Act, 1998*, S.O. 1998, c.15, Schedule B; (MR, DSC)

## Section 4 – GLOSSARY OF TERMS

“operational demarcation point” means the physical location at which a distributor’s responsibility for operational control of distribution equipment including connection assets ends at the Customer; (DSC)

“ownership demarcation point” means the physical location at which a distributor’s ownership of distribution equipment including connection assets ends at the Customer; (DSC)

“performance standards” means the performance targets for the distribution and connection activities of the distributor as established by the Board pursuant to the *Ontario Energy Board Act* and in the Rate Handbook;

"person" includes an individual, a corporation, sole proprietorship, partnership, unincorporated organization, unincorporated association, body corporate, and any other legal entity;

“physical distributor,” with respect to a load transfer, means the distributor that provides physical delivery of electricity to a load transfer Customer, but is not responsible for connecting and billing the load transfer Customer directly; (DSC)

"plaza" means any Building containing two or more commercial business tenants;

“point of supply,” with respect to an embedded generation facility, means the connection point where electricity produced by the generation facility is injected into the distribution system; (DSC)

"power factor" means the ratio between Real Power and Apparent Power (i.e. kW/kVA);

"primary service" means any service which is supplied with a nominal voltage greater than 750 volts;

"private property" means the property beyond the existing public street allowances;

“rate” means any rate, charge or other consideration, and includes a penalty for late payment; (DSC)

“Rate Handbook” means the document approved by the Board that outlines the regulatory mechanisms that will be applied in the setting of distributor rates; (RSC, DSC)

"reactive power" means the power component which does not produce work but is necessary to allow some equipment to operate, and is measured in kiloVolt Amperes Reactive (kVAR);

## Section 4 – GLOSSARY OF TERMS

"real power" means the power component required to do real work, which is measured in kiloWatts (kW);

"Regulations" means the regulations made under the *Ontario Energy Board Act* or the *Electricity Act*;

"reinforcement" means an investment that a distributor makes to increase the distribution system capacity to accommodate new load on the distributor's distribution system, consistent with the distributor's planning, design, and construction standard.

"residential customer" means a Customer that receives either a "residential service" or a "competitive sector multi-unit residential service";

"residential service" means a service where electricity is used exclusively for residential purposes in a separately metered living accommodation, where the "competitive sector multi-unit residential service" is not applicable. Eligibility is restricted to a dwelling unit that consists of a detached house or one unit of a semi-detached, duplex, triplex or quadruplex building, with a residential zoning; a separately metered dwelling within a town house complex or apartment building; and bulk metered residential buildings with six or fewer units;

"retail", with respect to electricity means,

- a) to sell or offer to sell electricity to a Consumer
- b) to act as agent or broker for a retailer with respect to the sale or offering for sale of electricity, or
- c) to act or offer to act as an agent or broker for a Consumer with respect to the sale or offering for sale of electricity; (A, MR, DSC)

"Retail Settlement Code" means the code approved by the Board and in effect at the relevant time, which, among other things, establishes a distributor's obligations and responsibilities associated with financial settlement among retailers and Consumers and provides for tracking and facilitating Consumers transfers among competitive retailers; (DSC)

"retailer" means a person who retails electricity; (A, MR, DSC)

"secondary service" means any service which is supplied with a nominal voltage less than 750 Volts;

"service agreement" means the agreement that sets out the relationship between a licensed retailer and a distributor, in accordance with the provisions of Chapter 12 of the Retail Settlement Code; (RSC)

## Section 4 – GLOSSARY OF TERMS

“service area,” with respect to a distributor, means the area in which the distributor is authorized by its license to distribute electricity; (A, EDL, DSC)

"service date" means the date that the Customer and Toronto Hydro mutually agree upon to begin the supply of electricity by Toronto Hydro;

“Standard Supply Service Code” means the code approved by the Board which, among other things, establishes the minimum conditions that a distributor must meet in carrying out its obligations to sell electricity under section 29 of the *Electricity Act*; (EDL)

"sub-service" means a separately metered service that is taken from the main Building service;

"supply voltage" means the voltage measured at the Customer's main service entrance equipment (typically below 750 volts). Operating conditions are defined in the Canadian Standards Association ("CSA") Standard CAN3-C235 (latest edition);

"temporary service" means an electrical service granted temporarily for such purposes as construction, real estate sales, trailers, et cetera;

"terminal pole" refers to the Toronto Hydro's distribution pole on which the service supply cables are terminated;

“Timed Load Interrupter Device” means a device that will completely interrupt the customer's electricity intermittently for periods of time and allows full load capacity outside of the time periods that the electricity is interrupted; (DSC)

“total losses” means the sum of distribution losses and unaccounted for energy; (DSC)

“totalization” is the process of aggregating, within Toronto Hydro's meter data management system, interval data from two or more interval meters that serve separate delivery points for the purpose of creating a virtual meter point whose peak load is less than the sum of the individual interval meters.

"transformer room" means an isolated enclosure built to applicable codes to house transformers and associated electrical equipment;

“transmission system” means a system for transmitting electricity, and includes any structures, equipment or other things used for that purpose; (A, MR, DSC)

“Transmission System Code” means the code, approved by the Board, that is in force at the relevant time, which regulates the financial and information obligations of the



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## Section 4 – GLOSSARY OF TERMS

Transmitter with respect to its relationship with Customers, as well as establishing the standards for connection of Customers to, and expansion of a transmission system; (DSC)

“transmit”, with respect to electricity, means to convey electricity at voltages of more than 50 kilovolts; (A, DSC)

“transmitter” means a person who owns or operates a transmission system; (A, MR, DSC)

“unaccounted for energy” means all energy losses that can not be attributed to distribution losses. These include measurement error, errors in estimates of distribution losses and unmetered loads, energy theft and non-attributable billing errors; (DSC)

“unmetered loads” means electricity consumption that is not metered and is billed based on estimated usage; (DSC)

“validating, estimating and editing (VEE)” means the process used to validate, estimate and edit raw metering data to produce final metering data or to replicate missing metering data for settlement purposes; (MR, DSC)

“wholesale market participant”, means a person that sells or purchases electricity or ancillary services through the IESO- administered markets; (RSC, DSC)

## Section 5 – TABLES

### 5 TABLES

<b>Table 1.1</b>	<b>Demarcation Points &amp; Charges for Connection Assets and Disconnection for Class 1 and Class 2 Customers</b>
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TABLE 1.1 Demarcation Points &amp; Charges for Connection Assets and Disconnection

Rate/Customer Class	Ownership Demarcation Point	Standard Allowance (Basic Connection)	Basic Connection Fee (for Std. Allowance)	Variable Connection Fee	Additional Services charged to Customer (as part of Var. Connections)	Connection Termination Fee (Initiated by customer request)
<b>CLASS 1</b>						
<b>Residential - Single service</b>						
Overhead	Top of Customer's service mast	up to 30 m OH service lines from Distributor's "feed" pole or lines. Includes connections at feed pole or lines, at customer's service mast, and equivalent average credit for transformation equipment.	Recovered through Distributor's rates	Customer charged Actual costs for connection assets beyond standard allowance.	Customers requesting an UG service in OH area will be required to pay 100% connection costs less the Standard allowance for an OH service.	Recovered through Distributor's Tariffs or rates. See Table 2
Underground (Not requiring Transformation Facilities on Customer's property)	Line side of Customer's meter base	equivalent credit to Class 1 Residential Overhead Single Service	Recovered through Distributor's rates	Customer charged Actual costs for connection assets beyond standard allowance, including street crossing. <i>If Customer's load requires transformation facilities on Customer's property, refer to "General Service" Rate Class category for Underground service with Transformation.</i>		Recovered through Distributor's Tariffs or rates. See Table 2
<b>CLASS 2</b>						
<b>General Service 0 &lt; 50 kW</b>						
Overhead - Single Service	Top of Customer's service mast	equivalent credit to Class 1 Residential Overhead Single Service	Recovered through Distributor's rates	Customer charged Actual costs for connection assets beyond standard allowance.	Additional or redesign due to changes in Customer initial proposal; electrical inspections more than standard allowance	Recovered through Distributor's Tariffs or rates. See Table 2
Underground - Single Service	Line side of Customer's main disconnect switch	equivalent credit to Class 1 Residential Overhead Single Service	Recovered through Distributor's rates	Customer charged Actual costs for connection assets beyond standard allowance.  Inspections more than standard allowance and all civil inspections.	Additional or redesign due to changes in customer initial proposal; electrical	Recovered through Distributor's Tariffs or rates. See Table 2

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**TABLE 1.2 Demarcation Points & Charges for Connection Assets and Disconnection**

Rate/Customer Class	Ownership Demarcation Point	Standard Allowance (Basic Connection)	Basic Connection Fee (for Std. Allowance)	Variable Connection Fee	Additional Services charged to Customer (as part of Var. Connections)	Connection Termination Fee (Initiated by customer request)
<b>CLASS 3-A</b> <b>General Service 50 kW - 999 kW</b>						
Overhead - Single building Bulk Metered or Suite Metering (Not requiring Transformation Facilities on private property)	Top of Customer's service mast	equivalent credit to Class 1 Residential Overhead Single Service	See Table 2	Customer charged Actual costs for connection assets beyond standard allowance.	Additional or redesign due changes in Customer initial proposal; electrical inspections more than standard allowance	Customer charged actual costs associated with disconnection and/or removal of connection assets up to the demarcation point. See Table 2
Underground - Single Building Bulk Metered or Suite Metering (Not requiring Transformation Facilities on private property)	Line side of Customer's main disconnect switch	equivalent credit to Class 1 Residential Overhead Single Service	See Table 2	Customer charged Actual costs for connection assets beyond standard allowance, including cable chamber(s), UG conduits as required.	Additional or redesign due changes in Customer initial proposal; electrical inspections more than std. allowance and all civil inspections.	Customer charged actual costs associated with disconnection and/or removal of connection assets up to the demarcation point. See Table 2
Overhead - Single Building Bulk Metered or Suite Metering (Requiring Transformation Facilities on private property)	Line side of Customer's main disconnect switch (secondary UG) OR top of Customer's service mast (secondary OH)	equivalent credit to Class 1 Residential Overhead Single Service	See Table 2	Customer charged Actual costs for connection assets beyond standard allowance, including transformer(s), Tx. connections, associated switching equipment, transformer pole(s), cable chamber(s), UG conduits as applicable.	Additional or redesign due changes in Customer initial proposal; electrical inspections more than std. allowance and all civil inspections and related feeder switching/scheduling	Customer charged actual costs associated with the disconnection and/or removal of connection assets including cables, transformers and related vault equipment up to the demarcation point and, related feeder switching and scheduling.
Underground - Single Building Bulk Metered or Suite Metering (Requiring Transformation Facilities on private property)	Line side of Customer's main disconnect switch or Customer's bus	equivalent credit to Class 1 Residential Overhead Single Service	See Table 2	Customer charged Actual costs for connection assets beyond standard allowance, including transformer(s), Tx. connections, associated switching equipment, transformer pads, transformer vaults, cable chambers, cable pull rooms, UG conduits and cabling and road crossing (as applicable).	Additional or redesign due changes in Customer initial proposal; electrical inspections more than std. allowance and all civil inspections and related feeder switching/scheduling	Customer charged actual costs associated with the disconnection and/or removal of connection assets including cables, transformers and related vault equipment up to the demarcation point and related feeder switching and scheduling.

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**TABLE 1.3 Demarcation Points & Charges for Connection Assets and Disconnection**

Rate/Customer Class	Ownership Demarcation Point	Standard Allowance (Basic Connection)	Basic Connection Fee (for Std. Allowance)	Variable Connection Fee	Additional Services charged to Customer (as part of Var. Connections)	Connection Termination Fee (Initiated by customer request)
<b>CLASS 3-B</b>						
<b>General Service 50 kW - 999 kW</b>						
Underground (Multi-units or Townhouse Complex with Transformation Facilities on private property other than supplied from primary distribution systems built along private streets)	(Bulk meter) First point of connection past transformers on private property as applicable, i.e. a) Tx. Secondary spade b) cable chamber c) tap box d) meter center	equivalent credit to Class 1 Residential Overhead Single Service	See Table 2	Customer charged Actual costs for connection assets beyond standard allowance, including transformer(s), associated switching equipment, transformer pads, transformer vaults, cable chambers, connections in cable chamber(s), tap boxes excess UG conduit & cabling.	Additional or redesign due to changes in Customer initial proposal; electrical inspections more than std. allowance and all civil inspections and related feeder switching/scheduling	Customer charged actual costs associated with the disconnection and/or removal of connection assets including cables, transformers and related vault equipment up to the demarcation point and related feeder switching and scheduling. See Table 2
	(Townhouse individual meter) line side of individual meter base	equivalent credit to Class 1 Residential Overhead Single Service applied to each meter	Recovered through Distributor's rates	Customer charged Actual costs for connection assets beyond standard allowance.		Recovered through Distributor's Tariffs or rates.
Underground (Multi-units or Townhouse Complex with NO Transformation Facilities on private property or supplied from primary distribution system built along private streets)	(Bulk meter) First point of connection past Distributor's system onto private private as applicable i.e. a) cable chamber b) tap box c) meter center	equivalent credit to Class 1 Residential Overhead Single Service	See Table 2	Customer charged Actual costs for connection assets beyond standard allowance, including cable chamber(s), excess UG conduit and cabling.	Additional or redesign due to changes in Customer initial proposal; electrical inspections more than std. allowance and all civil inspections.	Customer charged actual costs associated with the disconnection and/or removal of connection assets up to the demarcation point. See Table 2
	(Townhouse individual meter) line side of individual meter base	equivalent credit to Class 1 Residential Overhead Single Service applied to each meter	Recovered through Distributor's rates	Customer charged Actual costs for connection assets beyond standard allowance.		Recovered through Distributor's Tariffs or rates.
<b>CLASS 3-C</b>						
<b>Residential Subdivision</b>						
(development with more than 5 lots)	Line side of customer's meter base (UG) Top of Customer's service mast (OH)	equivalent credit to Class 1 Residential Overhead Single Service	See Table 2	Blended costs net of basic allowance credit		Recovered through Distributor's Tariffs or rates.
<b>CLASS 4 &amp; 5</b>						
<b>General Service 1000kW and Up</b>						
Underground Single/Multiple Building Bulk Metered or Suite Metering (Requiring Transformation Facilities on private property)	Line side of Customer's main bus	equivalent credit to Class 1 Residential Overhead Single Service	See Table 2	Customer charged Actual costs for connection assets beyond standard allowance, including transformer(s), Tx. connections, associated switching equipment, transformer pads, transformer vaults, cable chambers, cable pull rooms, UG conduits, excess cabling and street crossings.	Additional or redesign due to changes in Customer initial proposal; electrical inspections more than std. allowance and all civil inspections and related feeder switching/scheduling	Customer charged actual costs associated with the disconnection and/or removal of connection assets including cables, transformers and related vault equipment up to the demarcation point and related feeder switching and scheduling. See Table 2
Underground Single/Multiple Building Bulk Metered or Suite Metering (Customer-Owned Sub-Station) (Requiring Transformation Facilities on private property)	Pot head Terminations at line side of Customer's high voltage switchgear	equivalent credit to Class 1 Residential Overhead Single Service	See Table 2	Customer charged Actual costs for connection assets beyond standard allowance, including cable chamber(s), cable pullroom, excess UG conduit and cabling and street crossing.	Additional or redesign due changes in Customer initial proposal; electrical & Swgr inspections more than std. allowance; all civil inspection and related feeder switching/ scheduling; additional Hi-pot, protection & control relays, wiring and relay settings associated with pilot wire protection or other extra reliability systems	Customer charged actual costs associated with the disconnection and/or removal of connection assets including related feeder switching and scheduling. See Table 2

Note: Individual Suite Metering will negate the  
Transformer Allowance Discount

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**TABLE 1.4 Demarcation Points & Charges for Connection Assets and Disconnection**

Rate/Customer Class	Ownership Demarcation Point	Standard Allowance (Basic Connection)	Basic Connection Fee (for Std. Allowance)	Variable Connection Fee	Additional Services charged to customer (as part of Var. Connections)	Connection Termination Fee (Initiated by customer request)
<b>Unmetered Connections (excluding street lighting)</b>						
<b>Overhead-Supply</b>						
(1) Source connection is made at Distributor's supply pole and the service mast is located on the same supply pole	a) Top of Customer's service mast; or b) Customer's disconnect enclosure	Source connection is made at Distributor's supply pole	See Table 2	Customer charged Actual costs for connection assets beyond standard allowance	Additional or redesign due to changes in Customer initial proposal.	Customer charged actual costs associated with disconnection and/or removal of connection assets up to the demarcation point.
(2) Source connection is made at Distributor's supply pole (or lines), and the service mast is not located on the same supply pole	a) Top of Customer's service mast; or b) Customer's disconnect enclosure	Source connection (up to 30 m of service lines) from Distributor's supply pole or line to service mast that is not located on the same supply pole	See Table 2	Customer charged Actual costs for connection assets beyond standard allowance	Additional or redesign due to changes in Customer initial proposal.	Customer charged actual costs associated with disconnection and/or removal of connection assets up to the demarcation point.
<b>Underground-Supply</b>						
(1) Customer attachments on Distributor's poles	Line side of Customer's circuit breaker panel on pole	No standard allowance	not applicable	Customer charged Actual costs for connection assets.	Additional or redesign due to changes in Customer initial proposal.	Customer charged actual costs associated with disconnection and/or removal of connection assets up to the demarcation point.
(2) Customer attachments not on Distributor's poles	Customer's disconnect enclosure at Customer's structure	Source connection at Distributor's structure (tap box, cable chamber). No standard allowance	not applicable	Customer charged Actual costs for connection assets.	Additional or redesign due to changes in Customer initial proposal.	Customer charged actual costs associated with disconnection and/or removal of connection assets up to the demarcation point.

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**TABLE 2 Service Connection and Disconnection Fee**
**IMPORTANT:**

The range of services listed below may not be applicable in all districts due to the restrictions imposed by the distribution system in certain areas

Rate/Customer Class	Ownership Demarcation Point	Service Connection Fee (*) (Subject to annual review)	Connection Termination Fee (Initiated by Customer)
<b>CLASS 1 - Residential - Single Service</b>			
Overhead	Top of Customer's service mast	- Basic Connection Charge recovered through hydro rates (\$1,396.00)	(No charge - Recovered through rates)
Underground (Not requiring Transformation Facilities on customer's property)	Line side of Customer's meter base	- Variable Connection Charges collected directly from the Customer	(No charge - Recovered through rates)
<b>CLASS 2 - General Service 0 &lt; 50 kW</b>			
Overhead - Single Service	Top of Customer's service mast	- Basic Connection Charge recovered through hydro rates (\$1,396.00)	(No charge - Recovered through rates)
Underground - Single Service (Not requiring Transformation Facilities on customer's property)	Line side of Customer's main disconnect switch	- Variable Connection Charges collected directly from the Customer	(No charge - Recovered through rates)
<b>CLASS 3A - General Service 50 kW - 999 kW</b>			
Overhead - Single Service (Not requiring Transformation Facilities on private property)	Top of Customer's service mast	- Basic Connection re Charge covered through hydro rates (\$1,396.00) - Variable Connection Charges collected directly from the Customer	(Variable Disconnection Charge collected directly from the Customer)
Underground - Single Service (Not requiring Transformation Facilities on private property)	Line side of Customer's main disconnect switch	- Basic Connection Charge recovered through hydro rates (\$1,396.00) - Variable Connection Charges collected directly from the Customer	(Variable Disconnection Charge collected directly from the Customer)
(Requiring Transformation Facilities on private property)	Line side of Customer's main disconnect switch or Customer's bus	- Basic Connection Charge recovered through hydro rates (\$1,396.00) - Variable Connection Charges collected directly from the Customer	(Variable Disconnection Charge collected directly from the Customer)
<b>CLASS 3B - General Service 50 kW - 999 kW</b>			
Underground (Multi-units or Townhouse Complex with Transformation Facilities on private property other than supplied from primary distribution systems built along private streets)	(Bulk meter) First point of connection past transformers on private property a) Tx. Secondary spade b) meter center c) cable chamber d) tap box	- Basic Connection re Charge covered through hydro rates (\$1,396.00) - Variable Connection Charges collected directly from the Customer	(Variable Disconnection Charge collected directly from the Customer)
	(Townhouse individual meter) Line side of Customer's meter base		(No charge - Recovered through rates)
Underground (Multi-units or Townhouse Complex with NO Transformation Facilities on private property or supplied from primary distribution system built along private streets)	(Bulk meter) First point of connection past Distributor's system onto private a) tap box b) meter base/center c) cable chamber	- Basic Connection re Charge covered through hydro rates (\$1,396.00) - Variable Connection Charges collected directly from the Customer	(Variable Disconnection Charge collected directly from the Customer)
	(Townhouse individual meter) Line side of Customer's meter base	- Basic Connection Charge recovered through hydro rates (\$1,396.00) - Variable Connection Charges collected directly from the Customer	(No charge - Recovered through rates)
<b>CLASS 3C</b>			
Residential Subdivision (development with more than 5 lots)	Line side of Customer's meter base Top of Customer's service mast	- Basic Connection re Charge covered through hydro rates (\$1,396.00) - Variable Connection Charges collected directly from the Customer	(No charge - Recovered through rates)

(\*) Typical connection costs by Class of Customers are available upon request

## Section 5 – TABLES

**TABLE 2 (continued) - Service Connection and Disconnection Fee**

**IMPORTANT:**

The range of services listed below may not be applicable in all districts due to the restrictions imposed by the distribution system in certain areas

Rate/Customer Class	Ownership Demarcation Point	Service Connection Fee (*) (Subject to annual review)	Connection Termination Fee (Initiated by Customer)
<b>CLASS 4 &amp; 5 - General Service 1000 kW and Up</b>			
Underground (Requiring Transformation Facilities on private property)	Line side of Customer's main bus	- Basic Connection Charge recovered through hydro rates (\$1,396.00) - Variable Connection Charges collected directly from the Customer	(Variable Disconnection Charge collected directly from the Customer)
Underground (Customer-Owned Sub-Station)	Pot head Terminations at line side of Customer's high voltage switchgear	- Basic Connection Charge recovered through hydro rates (\$1,396.00) - Variable Connection Charges collected directly from the Customer	(Variable Disconnection Charge collected directly from the Customer)
<b>Unmetered Connections (excluding street lighting)</b>			
<b>Overhead Supply-</b>			
(1) Source connection is made at Distributor's supply pole and the service mast is located on the same supply pole	a) Top of Customer's service mast; or b) Customer's disconnect enclosure	- Unmetered Basic Connection Charge collected directly from the Customer (\$446.00) - Variable Connection Charges collected directly from the Customer	(Variable Disconnection Charge collected directly from the Customer)
(2) Source connection is made at Distributor's supply pole (or lines), and the service mast is not located on the same supply pole	a) Top of Customer's service mast; or b) Customer's disconnect enclosure	- Unmetered Basic Connection Charge collected directly from the Customer (\$1011.00) - Variable Connection Charges collected directly from the Customer	(Variable Disconnection Charge collected directly from the Customer)
<b>Underground Supply-</b>			
(1) Customer attachments on Distributor's poles	Line side of Customer's circuit breaker panel on pole	- Actual connection costs collected directly from the Customer	(Variable Disconnection Charge collected directly from the Customer)
(2) Customer attachments not on Distributor's poles	Customer's disconnect enclosure at Customer's structure	- Actual connection costs collected directly from the Customer	(Variable Disconnection Charge collected directly from the Customer)

*(\*) Typical connection costs by Class of Customers are available upon request*



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**TABLE 3 New or Upgraded Street Lighting Services – Point of Demarcation and Connection Charges**

<b>Types of Street Lighting. Distribution Systems</b>	<b>Ownership Demarcation Point</b>	<b>Standard Allowance</b>	<b>Basic Connection Fee (subject to annual review)</b>	<b>Variable Connection Fee (*)</b>
Municipal Lights attached to Distributor's poles and connected to Distributor's <i>overhead</i> 120/240 V secondary bus.	Connections at the overhead bus.	Connections made at Distributor's overhead secondary bus.	\$533.36	Customer charged actual costs for connection assets above and beyond the Standard Allowance.
Municipal Lights attached to Distributor's poles (in mixed use urban setting)** and connected to Distributor's <i>underground</i> 120/240 V secondary bus.	At the base of the Street Lighting bracket connected to the pole.	Connections made in the pole's handhole.	\$573.97	Customer charged actual costs for connection assets above and beyond the Standard Allowance. (e.g. cable chamber/tap box breakout, underground conduit and cables, additional connections)
Municipal Lights attached to Municipality's poles (in residential setting) and connected to Distributor's <i>underground</i> 120/240 V secondary bus.	Line side of the protective device (i.e. circuit breaker, fuse) in the pole's handhole.	Connections made in the pole's handhole.	\$573.97	Customer charged actual costs for connection assets above and beyond the Standard Allowance. (e.g. cable chamber/tap box breakout, underground conduit and cables, additional connections)

\*Consulting and engineering work are not included and may be separately charged.

\*\* mixed use urban setting, where streets are classified as Collector or Arterial.

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**TABLE 4 Customer-Owned Transformers (Article 3.4.1)**

Transformer Voltage		Recommended Primary Tap Voltage					
Primary	Secondary	+5%	+2½%	0	-2 ½%	-5 %	-7 ½%
27600 grd.Y/16000	less than 750	28980	28290	27600	26910	26220	
27600 grd.Y/16000	13800 grd.Y/8000						
27600	2400/4160 Y		28290	27600	26910	26220	25530
13860	2400/4160 Y		14206	13860	13513	13167	12820
13860 13860 grd.Y/8000	less than 750	14553	14206	13860	13513	13167	

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**TABLE 5 Meter Sockets (Article 2.3.7.1.2)**

<b><u>SELF-CONTAINED SOCKET METERING</u></b>			
Voltage	Phase	Wire	Maximum Service Switch Size Rating Amperes
120/240	1	3	200
120/240	1	3	400 *
208/120	2	3	200
208/120	3	4	200
600/347	3	4	200
600 **	3	3	200

\* A 400 amp transformer-rated meter socket contains a 3 wire current transformer and transformer type meter. Refer to Section 6, Reference #6 – “Toronto Hydro Metering Requirements 750 Volts or Less” Table I, for a list of manufacturer’s meter sockets approved by Toronto Hydro.

\*\* Used only for existing services where grounded supply is not available.

- Notes:
1. Only CSA approved meter sockets are to be used.
  2. Meter sockets shall be mounted so that the midpoint of the meter is set at 1700 mm  $\pm$  100 mm.
  3. Where the supply is grounded, 600 V metering shall be 4 wire. Where the Customer does not require a neutral, a full size neutral conductor sized in accordance with Table 16 of the Ontario Electrical Safety Code must be provided to all meter cabinets or sockets. The neutral conductor is to be terminated in the socket (or cabinet) on an insulated block in accordance with the Ontario Electrical Safety Code.

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**TABLE 6 Meter Cabinets (Article 2.3.7.1.2)**

<b><u>METER CABINETS</u></b>				
Voltage	Phase	Wire	Main Switch Size in Amperes	Meter Cabinets (see description below)
120/240	1	3	Over 400	A
208/120 416/240 600/347	3	4	Over 200 – 800	A
			Over 800	B
600*	3	3	Over 200 – 400	A
			Over 800	B

\* Only for existing services where grounded supply is not available.

### **Meter Cabinet Descriptions**

A – 48" x 48" x 12" complete with removable 44" x 44" backplate.

B – 36" x 36" x 12" connected to switchgear instrument transformer compartment.

- Notes:
1. Meter cabinets shall be fabricated of minimum # 16 gauge steel.
  2. Cabinets shall have side-hinged doors opening at the center and be equipped with three-point latching and provision for padlocking.
  3. The maximum distance from the floor to the top of the cabinet shall be 1830 mm.
  4. Where two or more circuits are used in one meter cabinet, Toronto Hydro will issue specific metering requirements.

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**TABLE 7 Instrument Transformers and Enclosures (Article 2.3.7.2)**

<b><u>Metering Transformers and Compartments</u></b>						
Voltage (Volts)	Phase	Wire	Service Size (Amperes)	Compartment Size	Number of Metering Transformers (Provision for)	
					Current	Voltage
240/120 208/120 N/W	1 3	3 3	Up to 800	A	1 or 2	0
			Over 800 Up to 4000	B		
208 / 120 416 / 240 600 / 347	3	4	Up to 800	A	3	3
			Over 800 Up to 4000	B	3	
600 (*)	3	3	Up to 800	A	2	2
			Over 800 Up to 4000	B	2	
Voltages up to 600	3 (*)	3 (*)	Over 4000	C	2	2
	3	4			3	3

\* Only for existing services where grounded supply is not available.

**MINIMUM COMPARTMENT SIZES** [width x height x depth (from CT mounting plate)]

- A - 762mm x 762mm x 210mm (30" x 30" x 8.25")
- B - 915mm x 762mm x 324mm (36" x 30" x 12.75")
- C - 965mm x 914mm x 381mm (38" x 36" x 15")

- NOTES: 1. Instrument transformers will be provided by Toronto Hydro and shall be installed in the switchgear by the manufacturer. The manufacturer shall not disassemble and/or change in any manner the Toronto Hydro equipment sent to the manufacturer.
2. Voltage transformer connections shall be connected on the line side of the current transformers. Current transformers shall be installed with their polarity marks towards the incoming Toronto Hydro supply.

## Section 5 – TABLES

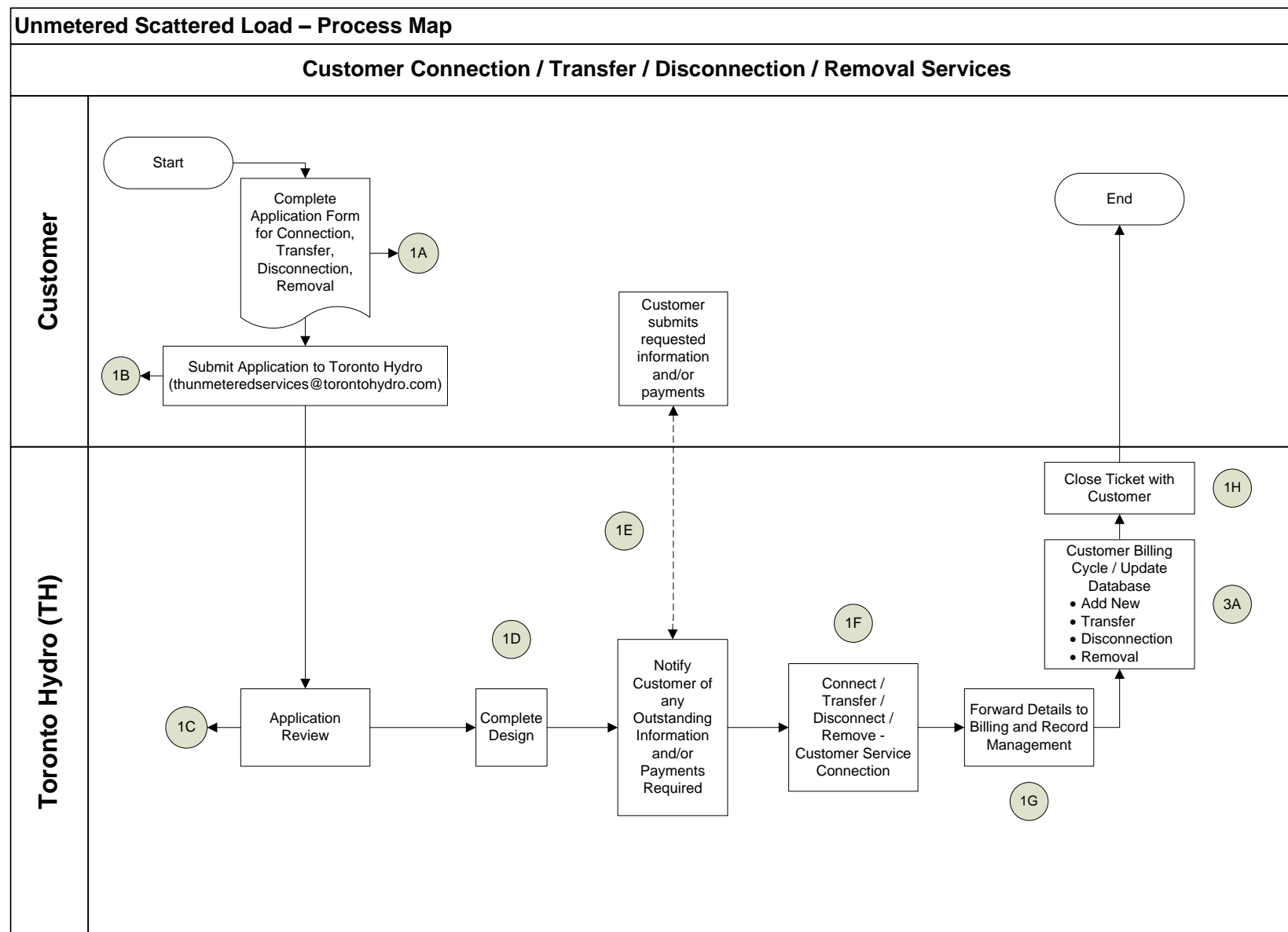
**TABLE 8 Meter Centres (Article 2.3.7.1.2)**

Meter centers may be used for 750 V applications or less, as far as they meet the following specifications:

- 1) Side-hinged doors or panels shall be installed over all sections of the switchboard where Toronto Hydro may be required to work, such as unmetered sections and those sections containing breakers, switches and meter mounting devices. Hinged doors or panels shall have provision for sealing and padlocking in the closed position. Where bolts are used, they shall be of the captive knurled type. The hinged covers over breakers or switches shall be so constructed that the covers cannot be opened when sealed or padlocked.
- 2) Breakers or switch handles shall have provision for positive sealing and padlocking in the “off” position.
- 3) Meter mounting devices shall be wired so as to be on the “load” side of the breakers or switches.
- 4) Each combination meter socket and breaker panel shall have adequate space for permanent Customer identification with respect to street address and/or unit number.
- 5) The centre of the bottom row of meter sockets shall be not less than 600 mm from the finished floor. The centre of the top row of meter sockets shall be not less than 1800 mm from the finished floor.
- 6) The distance between adjacent meter socket rims in the horizontal plane shall not be less than 152 mm.
- 7) The distance between adjacent meter socket rims in the vertical plane shall be as follows:
  - a) For 100 A., 4 or 5 jaw, not less than 76 mm.
  - b) For 100 A., 7 jaw, not less than 152 mm.
- 8) The meter mounting socket and sealing ring shall be acceptable to Toronto Hydro.
- 9) Where a neutral is required, the meter mounting device shall have a pre-wired, ungrounded neutral connection to the 5th or 7th terminal. The connection, if not made directly to the neutral bus, shall be not less than #12 AWG copper or equivalent.

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**TABLE 9.1 – Unmetered Scatter Load Process Map: Customer Connection / Transfer / Disconnection / Removal Services**



## Section 5 – TABLES

**TABLE 9.2 – Toronto Hydro / Customer Interactions for Table 9.1 Process Map: Customer Connection/Transfer/Disconnection/Removal Services**

	Refer to Table 9.1	Description
<b>Rights and Obligations</b>	<b>1A</b>	<p><b>Customer</b></p> <ul style="list-style-type: none"> <li>• Clarifications with regards to Application Form requirements can be directed to <a href="mailto:thunmeteredservices@torontohydro.com">thunmeteredservices@torontohydro.com</a>.</li> <li>• Fill out the Application Form complete with all required information and documentation for a new connection, transfer or disconnection of services.</li> </ul> <p><b>Toronto Hydro</b></p> <ul style="list-style-type: none"> <li>• Toronto Hydro requires a completed Application Form including load in order to process the Customers requested service.</li> <li>• Make available to the Customer, the Application Form and contact information for application support.</li> </ul>
	<b>1B</b>	<p><b>Customer</b></p> <ul style="list-style-type: none"> <li>• Submit an Application Form complete with all required information and documentation to <a href="mailto:thunmeteredservices@torontohydro.com">thunmeteredservices@torontohydro.com</a>.</li> <li>• Information submitted shall be an accurate representation of the unmetered connection.</li> </ul> <p><b>Toronto Hydro</b></p> <ul style="list-style-type: none"> <li>• Acknowledge receipt of Application Form.</li> </ul>
	<b>1C</b>	<p><b>Customer</b></p> <ul style="list-style-type: none"> <li>• To receive acknowledgement of receipt of Application Form.</li> <li>• Provide any additional information that Toronto Hydro may request.</li> </ul> <p><b>Toronto Hydro</b></p> <ul style="list-style-type: none"> <li>• Toronto Hydro shall not proceed with the Customer's request unless the Application Form is complete and accurate.</li> <li>• Review submitted Application Form for completeness.</li> <li>• Notify Customer of any additional requirements to complete the Application Form.</li> </ul>
	<b>1D</b>	<p><b>Customer</b></p> <ul style="list-style-type: none"> <li>• Provide any additional information that Toronto Hydro may request.</li> <li>• Should Toronto Hydro deny the Customer's request, the Customer will be provided with a reason for denial in writing.</li> </ul> <p><b>Toronto Hydro</b></p> <ul style="list-style-type: none"> <li>• Toronto Hydro will make every effort to accommodate the Customer's request; however there may be incidences where the Customer's request may be denied.</li> <li>• Complete design and installation review.</li> <li>• Discuss issues with Customer which may transpire.</li> </ul>



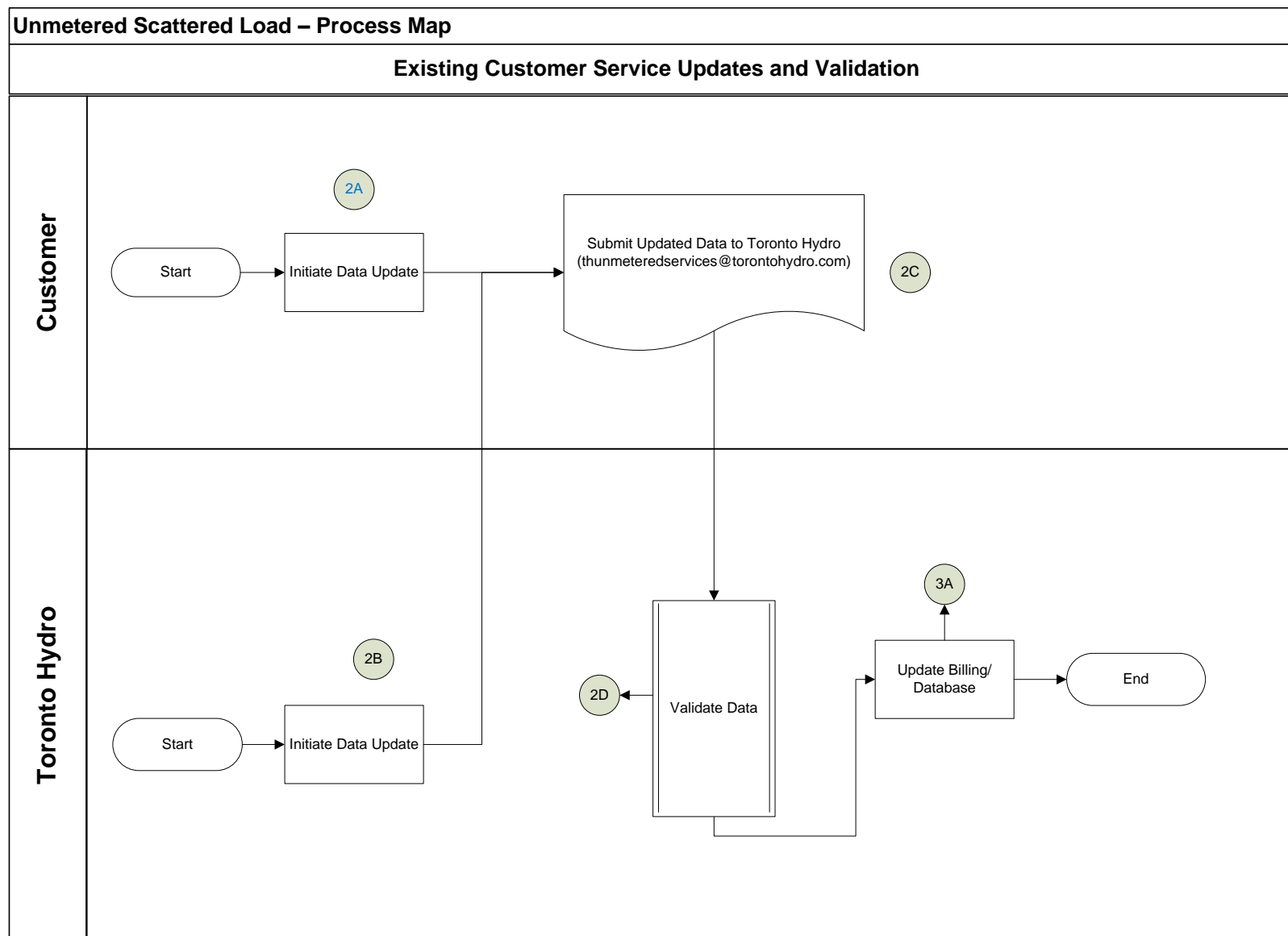
## Section 5 – TABLES

**TABLE 9.2 – Toronto Hydro / Customer Interactions for Table 9.1 Process Map: Customer Connection/Transfer/Disconnection/Removal Services (continued)**

	Refer to Table 9.1	Description
<b>Rights and Obligations</b>	<b>1E</b>	<b>Customer</b> <ul style="list-style-type: none"> <li>Acknowledgment of receipt.</li> <li>Provide any outstanding information and/or payments required.</li> </ul> <b>Toronto Hydro</b> <ul style="list-style-type: none"> <li>Notify the Customer of any outstanding information and/or payments required.</li> <li>Refuse connection if any of the requirements are not met.</li> <li>Once the requested information is received and approved by Toronto Hydro and payment is received and processed, Toronto Hydro will proceed with the Service request.</li> </ul>
	<b>1F</b>	<b>Customer</b> <ul style="list-style-type: none"> <li>Customer shall perform any work that is the responsibility of the Customer.</li> <li>Customer shall comply with all of the requirements of Toronto Hydro's Conditions of Service, Toronto Hydro Construction Standards, and the Ontario Electrical Safety Code to ensure public safety in performing the work.</li> </ul> <b>Toronto Hydro</b> <ul style="list-style-type: none"> <li>Toronto Hydro shall perform any work that is the responsibility of Toronto Hydro.</li> </ul>
	<b>1G</b>	<b>Toronto Hydro</b> <ul style="list-style-type: none"> <li>After completion of all work Service information is sent for billing processing.</li> </ul>
	<b>1H</b>	<b>Customer</b> <ul style="list-style-type: none"> <li>To receive acknowledgement from Toronto Hydro that the Service request has been completed.</li> </ul> <b>Toronto Hydro</b> <ul style="list-style-type: none"> <li>Toronto Hydro will notify Customer that the Service request has been completed.</li> </ul>
<b>Billing Update Process</b>	<b>3A</b>	<b>Toronto Hydro</b> <ul style="list-style-type: none"> <li>Create, remove, or modify a Customer's Service in accordance to the work completed for the Customer.</li> <li>Update billing system and cycle to reflect updates to a Customer's Service.</li> </ul>

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**TABLE 9.3 – Unmetered Scatter Load Process Map: Existing Customer Service Updates and Validation**



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**TABLE 9.4 – Toronto Hydro / Customer Interactions for Table 9.3 Process Map: Existing Customer Service Updates and Validation**

	Refer to Table 9.3	Description
<b>Data Updating and Validation Process</b>	<b>2A</b>	<b>Customer</b> <ul style="list-style-type: none"> <li>Customer to provide a complete data update on a regular interval basis.</li> <li>Customer to provide a data update immediately upon any Customer changes.</li> </ul>
	<b>2B</b>	<b>Customer</b> <ul style="list-style-type: none"> <li>Upon request by Toronto Hydro, the Customer shall provide a data update. Requested data update may include details such as the precise location, service size, load profiles, and account information.</li> </ul> <b>Toronto Hydro</b> <ul style="list-style-type: none"> <li>In addition, Toronto Hydro may require the Customer to provide a data update at any time.</li> </ul>
	<b>2C</b>	<b>Customer</b> <ul style="list-style-type: none"> <li>Data updates shall be provided in a format acceptable to Toronto Hydro.</li> <li>Data updates shall be submitted to Toronto Hydro.</li> <li>A Customer Load Accuracy Declaration shall be submitted with any data update submitted by the Customer.</li> </ul>
	<b>2D</b>	<b>Customer</b> <ul style="list-style-type: none"> <li>Provide any additional information that Toronto Hydro may request. This may include field audits and Customer's work documentation to support changes and validation.</li> </ul> <b>Toronto Hydro</b> <ul style="list-style-type: none"> <li>Any updated data will be reviewed for accuracy and completeness.</li> <li>Notify Customer of any additional information required or audit requirements in order to complete the updated data review.</li> <li>Periodical audits of existing Customer accounts to validate the data accuracy.</li> <li>Perform audits which may include field audits, and/or on-site measurements of unmetered accounts to validate the data provided by the Customer.</li> </ul>
<b>Billing Update Process</b>	<b>3A</b>	<b>Toronto Hydro</b> <ul style="list-style-type: none"> <li>Update its records based on the information received from the Customer subject to verification through a validation process.</li> <li>Toronto Hydro will inform the Customer of any changes to their account in writing.</li> </ul>

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## Section 6 – REFERENCES

### 6 REFERENCES

1. **Economic Evaluation Model for Distribution System Expansion**  
Refer to Appendix B of the Distribution System Code:  
"Methodology and Assumptions for an Economic Evaluation"
2. **Standard Toronto Hydro Connection Agreements - Terms of Conditions**
  - Schedule A:
    - Toronto Hydro-Electric System Limited Connection Agreement
3. **Toronto Hydro Distributed Generation Requirements**
4. **Toronto Hydro Requirements for the Design and Construction of Customer-Owned High Voltage Substations**
5. **Toronto Hydro Requirements for the Design and Construction of Customer-Owned Structures**
6. **Toronto Hydro Metering Requirements 750 Volts or Less**
7. **Toronto Hydro Metering Requirements for 13.8 kV & 27.6 kV Customer-Owned Substations**
8. **Contractor Pre-Qualification Application**
9. **Toronto Hydro Metering Services and Charges**