



**Volume**

**1**

OAKVILLE HYDRO

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# Conditions of Service

OAKVILLE HYDRO ELECTRICITY DISTRIBUTION INC.

# Conditions of Service

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## Introduction

The purpose of this document is to provide a means of communicating the types and level of electrical service available to Oakville Hydro's electricity distribution customers. The provisions of these Conditions of Service form a part of any Agreement or Contract made between Oakville Hydro (Oakville Hydro) and any connected Customer, Retailer or Generator, and these Conditions of Service supersede all previous Conditions of Service, oral or written, of Oakville Hydro.

The Ontario Energy Board, through its Distribution System Code (referred to in these Conditions of Service as the "DSC"), 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 resolution in the event that a dispute cannot be resolved without the Board's intervention.

The "**Introduction**" section contains references to the Customer's and Oakville Hydro's rights, the dispute resolution process and legislation that cover these Conditions of Service.

The "**Distribution Activities (General)**" section contains references to services and requirements, which span across all customer classes. This section covers such items as Rates, Billing, Hours of Work, Emergency Response, Power Quality, Available Voltage, etc.

The "**Customer Class Specific**" section contains references to services and requirements, which are specific to individual customer classes in addition to those outlined in "Distribution Activities (General)". This section would cover such items as Metering, Service Entrance Requirements, Delineation of Ownership, Special Contracts, etc.

The "**Glossary of Terms**" contains the variety of terms that are defined in the context of this document. Where possible, the definitions in the glossary correspond to definitions in existing documents that apply to Oakville Hydro, such as the DSC and the Standard Supply Service Code, and Oakville Hydro's Electricity Distributor Licence. The text of the Conditions of Service document is used to expand on these definitions as applicable to Oakville Hydro

## 1.1 Oakville Hydro's Service Territory

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

Oakville Hydro is a corporation incorporated under the laws of the Province of Ontario to distribute electricity.

Oakville Hydro is licenced by the Ontario Energy Board ("OEB") to supply electricity to Customers as described in its Distribution Licence issued on November 26, 2003 by the OEB ("Distribution Licence"). Additionally, there are requirements imposed on Oakville Hydro by the various codes referred to in the Licence and by the *Electricity Act, 1998* and the *Ontario Energy Board Act, 1998*.

Oakville Hydro may only operate distribution facilities within its Licenced Territory as defined in its Distribution Licence. The current distribution territory is the area within the municipal boundaries of the Town of Oakville. This service area is subject to change with the OEB's approval.

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

### 1.1.1 Distribution System Overview

Oakville Hydro distributes electrical power through both an overhead and underground feeder network operating at a primary voltage of 27.6 kV. This 27.6 kV primary system is a radial loop system with open points between interconnections. These feeders supply distribution transformers directly or indirectly through either a 13.8 kV, or 4 kV sub-distribution system.

The supply of electricity by Oakville Hydro to any Customer will be at the 27.6 kV primary voltage level. For connection of a Customer at other than this primary voltage (i.e. 13.8 kV, or 4 kV), Oakville Hydro will carry out a special study to justify the investment in new distribution facilities at these voltages since the use of these voltages is not being expanded. The cost of this study may be charged to the Customer.

## 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 Oakville Hydro to any Customer shall be subject to the various laws, regulations, and codes, including, without limitation, the provisions of the latest editions of the following documents:

- 1) Federal Laws and regulations

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- 2) *Electricity Act, 1998*
- 3) *Ontario Energy Board Act, 1998*
- 4) Distribution Licence
- 5) Affiliates Relationship Code
- 6) Transmission System Code
- 7) Distribution System Code
- 8) Retail Settlement Code
- 9) Standard Supply Service Code
- 10) Smart Sub-metering Code
- 11) Ontario Electrical Safety Code
- 12) Municipal By-laws
- 13) These Conditions of Service

In the event of a conflict between this document and the Distribution Licence or regulatory codes issued by the OEB, or the *Energy Competition Act, 1998* (the “Act”), the provisions of the Act, the Distribution Licence and associated regulatory codes shall prevail in the order of priority indicated above. The related codes and governing laws are not all-inclusive; other codes and laws may apply. If there is a conflict between an agreement or contract with a Customer and these Conditions of Service, these Conditions of Service shall govern.

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. Further, work shall be conducted in accordance with the latest edition of the Ontario Occupational Health and Safety Act (OHSA), the Regulations for Construction Projects, the harmonized Electric Utility Safety Association (EUSA) rulebook and Oakville Hydro’s Safety Policy.

Any reference to a document includes all amendments or supplements to, or replacements of, that document or that provision of the document.

## 1.3 Interpretations

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

In these Conditions, unless the context otherwise requires:

- Headings, paragraph numbers and underlining are for convenience only and do not affect the interpretation of these Conditions;
- Words referring to the singular include the plural and vice versa;
- Words referring to a gender include any gender;
- The word “person” includes a firm, a body corporate, an unincorporated association, or an authority;
- Where there is a reference to a number of days between two events, they shall be counted by excluding the day on which the first event occurred and including the day on which the second event occurs; and
- Any event that is required under these Conditions to occur on or by a stipulated date, which is a holiday, may occur on or by the next business day.

## 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 and any amendments made from time to time form a part of any Agreement or Contract made between Oakville Hydro and any connected Customer, Retailer or Generator, and these Conditions of Service supersede all previous Conditions of Service, oral or written, of Oakville Hydro or its predecessor, Oakville Hydro-Electric Commission, as of the effective date of these Conditions of Service.

In the event of changes to these Conditions of Service, Oakville Hydro shall issue a notice in the Customer's bill. Oakville Hydro may also issue a public notice in a local newspaper, or on its website.

Changes to these Conditions of Service will be approved by the President and CEO of Oakville Hydro

The Customer, Retailer or Generator is responsible for contacting Oakville Hydro to ensure they have the current version or to obtain the current version of these Conditions of Service. Oakville Hydro may charge a reasonable fee for providing a copy of this document. The current version of this document is also posted on the Oakville Hydro website and can be downloaded free from [www.oakvillehydro.com](http://www.oakvillehydro.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.*
- *General email address*

The normal business hours of Oakville Hydro are 8:30 a.m. to 4:30 p.m., Monday to Friday, excluding statutory holidays. Extended hours may be available from time to time as determined by Oakville Hydro

Oakville Hydro may be contacted by:

- Payments by mail:

Oakville Hydro  
P.O. Box 1900  
Oakville, Ontario  
L6K 0C7

- Phone (Available 24 hours per day, seven days per week)

General inquiry	(905) 825-9400
Emergency	(905) 825-9400
Streetlights	(905) 825-6354
Utility Locates (Digging/excavation)	1-800-400-2255 or <a href="http://www.on1call.com">www.on1call.com</a>

- Phone (During regular business Hours)

Moving	(905) 825-9400
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Collections	(905) 825-4463
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- Fax: (905) 825-4447
- E-mail: [hydro@oakvillehydro.com](mailto:hydro@oakvillehydro.com)

## 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.*

### 1.6.1 Customer

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

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

Notwithstanding the above, neither Oakville Hydro nor the Customer shall be liable to the other party 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 Oakville Hydro, its directors, officers, employees and agents from any claims made by any third parties in connection with the construction and installation of Oakville Hydro distribution equipment by or on behalf of the Customer.

Customers experiencing outages or other disturbances will be advised, upon request, of the cause of the outages.

A Customer has the right to demand identification from any person representing himself to be an authorized agent or employee of Oakville Hydro.

A Customer has the right to access current meter and price data, and to interrogate the meter or to assign this right to others, in accordance with any relevant technical specifications and codes. A Customer shall pay the reasonable cost of any software, hardware or other services required for the Customer to obtain direct access to meter information.

A Customer has the right to receive historical Customer-specific usage, meter and payment data as defined in the Retail Settlement Code. A fee may apply.

### 1.6.2 Embedded Generator

Oakville Hydro shall only be liable to an embedded generator and an embedded generator shall only be liable to Oakville Hydro for any damages that arise directly out of the willful misconduct or negligence:

- of Oakville Hydro in providing distribution services to the embedded generator;

## **INTRODUCTION**

- of the embedded generator in being connected to Oakville Hydro's distribution system; or
- of Oakville Hydro or embedded generator in meeting their respective obligations under these Conditions, their licences and any other applicable law.

Notwithstanding the above, neither Oakville Hydro nor the embedded generator shall be liable to the other party 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 embedded generator shall indemnify and hold harmless Oakville Hydro, its directors, officers, employees and agents from any claims made by any third parties in connection with the construction and installation of a generator by or on behalf of the embedded generator.

### **1.6.3 Embedded Distributor**

Oakville Hydro shall only be liable to an embedded distributor and an embedded distributor shall only be liable to Oakville Hydro for any damages that arise directly out of the willful misconduct or negligence:

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

Notwithstanding the above, neither Oakville Hydro nor the embedded distributor shall be liable to the other party 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 embedded distributor shall indemnify and hold harmless Oakville Hydro, its directors, officers, employees and agents from any claims made by any third parties in connection with the construction and installation of a distribution system by or on behalf of the embedded distributor.

### **1.6.4 Unmetered Load Customers**

Oakville Hydro shall only be liable to an unmetered load customer and an unmetered load customer shall only be liable to Oakville Hydro for any damages that arise directly out of the willful misconduct or negligence:

- of Oakville Hydro in providing distribution services to the unmetered load customer;



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- of the unmetered load customer in being connected to Oakville Hydro's distribution system; or
- of Oakville Hydro or unmetered load customer in meeting their respective obligations under these Conditions, their licences and any other applicable law.

Notwithstanding the above, neither Oakville Hydro nor the unmetered load customer shall be liable to the other party 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.

An unmetered load customer has the right to request that Oakville Hydro update its calculation of energy consumption when there is a change in connected wattage. The unmetered load customer must submit its request in writing and provide documentation supporting the change in the connected wattage. Oakville Hydro will update its billing system with the new load information effective with the next full billing cycle.

Oakville Hydro will provide written notice to an unmetered load customer if cost allocation studies, load profile studies or other rate-related materials may impact them materially.

## 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.*

Oakville Hydro shall comply with its Conditions of Service but may waive a provision of its Conditions of Service in favour of a customer or potential customer at Oakville Hydro's sole discretion.

### 1.7.1 Access to Customer Property

Oakville Hydro shall have access to Customer property in accordance with **Section 40 of the Electricity Act, 1998** and any successor acts thereto.

Oakville Hydro will undertake the necessary programs to maintain and enhance its distribution plant at its expense, as part of its planned activities during normal business hours, Monday to Friday. Where a Customer requests that such planned activities occur outside normal working hours, then the Customer shall pay the additional costs. In the event that services or facilities to a Customer need to be restored as a result of these construction or maintenance activities by Oakville Hydro, they will be restored to an equivalent condition.

In addition, Oakville 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 Oakville Hydro's construction activities. If a Customer requests special construction beyond the normal Oakville Hydro standard installation in accordance with the

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program, the Customer shall pay the additional cost, including engineering and administration fees.

### 1.7.2 Safety of Equipment

The Customer will comply with all aspects of the **Ontario Electrical Safety Code** with respect to ensuring that equipment is properly identified and connected for metering and operating purposes. The Customer will take whatever steps necessary to correct any deficiencies, in particular cross wiring situations, within **72 hours** of written notice by Oakville Hydro to the Customer. If the Customer does not take such action within this time frame, Oakville Hydro shall disconnect the supply of power to the Customer as described in **Section 2.2 Disconnection**.

The **Customer shall not** build, plant or maintain trees, shrubs, landscaping or structures etc. that, in the sole opinion of Oakville Hydro, may affect the safety, reliability, accessibility or efficiency of Oakville Hydro distribution facilities. The customer is responsible for the cost of trimming trees on private property in the vicinity of Oakville Hydro lines. The **Customer shall not** access, use or interfere with the distribution facilities of Oakville Hydro except in accordance with a written agreement. All connections, disconnections, or reconnections of Oakville Hydro's distribution facilities (i.e. the supply side of the Customer's service entrance) must be performed by Oakville Hydro employees or its appointed agents and shall be arranged in advance by the Customer or his contractor. The Customer must also grant the right to seal, secure and/or prevent from tampering any point where a connection may be made on the supply side of the metering equipment.

### 1.7.3 Operating Control

The Customer will provide a convenient and safe place, satisfactory to Oakville Hydro, for installing, maintaining and operating its equipment in, on, or about the Customer's premises. Oakville Hydro assumes no risk and will not be liable for damages resulting from the presence of its equipment on the Customer's premises or approaches thereto, or action, omission or occurrence beyond its control, or negligence of any Persons over whom Oakville Hydro has no control.

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

Customers will be required to pay the cost of repairs or replacement of Oakville 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 the Customer's premises, where Oakville Hydro's responsibility for operational control of distribution equipment ends, is defined by the DSC as the "operational demarcation point".

### **1.7.4 Repairs of Defective Customer Electrical Equipment**

The Customer will be required to repair or replace any equipment owned by the Customer that may affect the integrity or reliability of Oakville Hydro's distribution system within **72 hours** of written notice by Oakville Hydro to the Customer. If the Customer does not take such action within this time frame, Oakville Hydro may disconnect the supply of power to the Customer as described in **Section 2.2 Disconnection**.

### **1.7.5 Repairs of Customer's Physical Structures**

Depending on the ownership demarcation point, the construction and maintenance of all civil works on private property owned by the Customer, including such items as transformer vaults, transformer rooms, transformer pads, cable chambers, cable pull rooms and underground conduit, will be the responsibility of the Customer. All civil work on private property must be inspected and accepted by Oakville Hydro and, where required, by the Electrical Safety Authority.

The Customer is responsible for the maintenance and safe keeping conditions satisfactory to Oakville Hydro of the Customer's structural and mechanical facilities located on private property.

Poles located on private property are considered to be privately owned, unless Oakville Hydro has a specific registered easement for the installation or claims a right to the installation in accordance with the Electricity Act. Privately owned pole lines are considered to be owned jointly by the customers supplied by the line.

Where a customer owns a pole line on private property, it is the customer's responsibility to conduct maintenance, tree trimming, and brush and tree removal around the overhead lines. Clearances must conform to the Ontario Electrical Safety Code.

## **1.8 Disputes**

*Any disputes 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 processes that have been established as a condition of licence.*

To resolve disputes, Oakville Hydro will follow the terms of Section 16 - Customer Complaint and Dispute Resolution of its Distribution Licence.

**Section 16 of the Distribution Licence states:**

"The Licensee shall:

- a) have a process for resolving disputes with customers that deals with disputes in a fair and reasonable manner;

## INTRODUCTION

- b) publish information which will make its customers aware of and help them to use its dispute resolution process;
- c) make a copy of the complaints resolution process available for inspection by members of the public at each of the Licensee's premises during normal business hours; and
- d) give or send free of charge a copy of the process to any person who reasonably requests it.

### 1.8.1 Dispute Resolution Process

In order to comply with the requirements in its Licence, Oakville Hydro provides the following dispute resolution process:

- a) To register a complaint, the Customer, Embedded Generator, Embedded Distributor or Retailer must call or write the Director/Manager of the appropriate Department of Oakville Hydro. The Director/Manager will initiate the complaint record which will include:
  - The name of the complainant;
  - The date of the complaint;
  - The nature of the complaint;
  - The result of the dispute resolution;
  - The date resolved or referred to the next level.
- b) If the matter is not satisfactorily resolved by the Director/Manager within ten (10) business days or a mutually agreed upon time period, the Director or Manager, may refer the matter to the Executive member of the appropriate Department of Oakville Hydro, who will address the matter in consultation with the applicable Director/Manager. The Executive member will complete the complaint record with the following information:
  - The result of the dispute resolution;
  - The date resolved or referred to the independent third party.
- c) If the matter is not satisfactorily resolved by the Executive member within a further ten (10) business days or a mutually agreed upon time period, the Customer, Embedded Generator, Embedded Distributor or Retailer may refer the matter to the Ontario Energy Board at:

Consumer Relations Centre  
Ontario Energy Board  
P.O. Box 2319  
2300 Yonge Street  
Toronto, Ontario  
M4P 1E4

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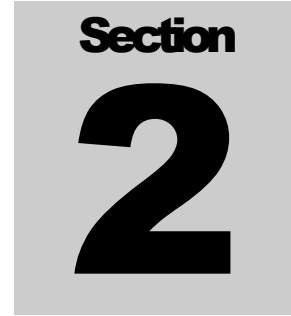
416-314-2455

1-800-632-2727

The Customer, Embedded Generator, Embedded Distributor or Retailer shall be liable for any and all costs incurred in either preparing for or presenting their complaint to the independent third party. Oakville Hydro shall be responsible for its costs of preparing and presenting its response to the complaint.

The written result of the dispute resolution is to be attached to the complaint record.

- d) The complaint record and any supporting documentation will be kept on file at Oakville Hydro.
- e) A copy of this dispute resolution process is available on Oakville Hydro's website at [www.oakvillehydro.com](http://www.oakvillehydro.com), and by mail as outlined in section 1.5. There is no charge for obtaining a copy of the complaint procedure.



## DISTRIBUTION ACTIVITIES (GENERAL)

*This section includes information that is applicable to all Customer classes of Oakville Hydro Items that are applicable to only a specific Customer class are covered in Section 3.*

### 2.1 Connections

Under the terms of the DSC, Oakville Hydro has the obligation to either connect or to make an offer to connect any Customers that lie along the lines in its service area.

The Customer or its representative shall consult with Oakville 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. Oakville Hydro will confirm, in writing, the characteristics of the electric supply.

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

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

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

Oakville Hydro shall make every reasonable effort to respond promptly to a generator's request for connection. In any event, Oakville Hydro shall provide an initial consultation with a generator that wishes to connect to its distribution system regarding the connection process within thirty (30) calendar days of receiving a written request for connection. A final offer to connect a generator to Oakville Hydro's distribution system shall be made within ninety (90)

## DISTRIBUTION ACTIVITIES (GENERAL)

calendar days of receiving a written request for connection, unless other necessary information outside of Oakville Hydro's control is required before the offer can be made.

Oakville Hydro shall make every reasonable effort to respond promptly to another distributor's request for connection. Oakville Hydro shall provide an initial consultation with another distributor regarding the connection process within thirty (30) days of receiving a written request for connection. The two distributors shall file a joint application for approval of the distribution asset and the compensation to be provided by the connecting distributor in accordance with the DSC.

Connection for a new service request for a low voltage (<750 volts) service will be completed within five (5) business days from the day on which all applicable service conditions are satisfied.

Connection for a new service request for a high voltage (>750 volts) service will be completed within 10 business days from the day on which all applicable service conditions are satisfied.

Oakville Hydro's process for connecting another distributor is set out in Section 3.7 Embedded Distributor of these Conditions of Service.

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

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

Oakville Hydro, in its discretion, may require a Customer, generator or distributor to enter into a Connection Agreement with Oakville Hydro including terms and conditions in addition to those expressed in these Conditions of Service.

### **21.1 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 DSC code.*

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

## **DISTRIBUTION ACTIVITIES (GENERAL)**

Under the terms of the DSC, Oakville 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 or service can be connected to Oakville Hydro’s distribution system without an Expansion or Enhancement; and
- b) the service installation meets the conditions listed in these Conditions of Service.

Where a building “lies along” Oakville Hydro’s distribution system facilities, all new or upgraded services will be installed below grade, in accordance with Oakville Hydro’s specifications for underground services.

The location of the Customer’s service entrance equipment will be subject to the approval of Oakville Hydro and the Electrical Safety Authority.

### **2.1.1.1 Connection Charges**

Oakville Hydro shall recover the costs associated with the installation of “Connection Assets” by Customer Class as identified in Table 1, Section 5, of these Conditions of Service. The standard allowance to provide a basic connection is recovered through a Basic Connection Fee; whereas the costs associated with the installation of Connection assets **above and beyond** the standard allowance is recovered through a Variable Connection Fee that is based on the actual costs incurred to provide this level of service. The Basic Connection Fee and the Variable Connection Fee are outlined in Table 1, Section 5 of these Conditions of Service.

If the connection of a micro-embedded generation facility will require a site assessment, Oakville Hydro may collect a connection deposit of up to \$500 for the preparation of the offer to connect. If Oakville Hydro is unable to connect the micro-embedded generation facility the deposit will be refunded to the applicant. If Oakville Hydro makes an offer to connect the micro-embedded generation facility and the applicant refuses the offer, Oakville Hydro shall retain the connection deposit.

**Note 1:** For the purpose of these Conditions, subdivisions, multi-units or townhouse type developments are considered as Non-Residential Class of Customers.

**Note2:** Basic Connection Fees are reviewed annually and are calculated based on the standard costs to provide the Standard Allowance and the Basic Connection for each Customer Class as identified in Table 1, Section 5 of these Conditions of Service.



## 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 enhancement, 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.*

Under the terms of the DSC, Oakville Hydro is required to make an "Offer to Connect" if, in order to connect a Customer, Oakville Hydro must construct new distribution system facilities or increase the capacity of existing distribution facilities (an "Expansion" of its system). In making this "Offer to Connect", Oakville Hydro will include, without limitation, all items as outlined in the DSC, as applicable.

The cost associated with the Expansion will be recovered through a capital contribution. The cost for an Expansion is to be fair and reasonable and is in addition to any Basic and/or Variable Connection Charges. Refer to Table 1 in Section 5 for Basic and Variable Connection Fees of each Customer Class and the respective ownership demarcation point.

Where an Expansion of Oakville Hydro's distribution system facilities is required, all new services will be installed below grade, in accordance with Oakville Hydro's specifications for underground services.

Where an expansion is required to connect a renewable energy generation facility as defined in the DSC, an evaluation will be conducted according to provisions in the DSC. In general, Oakville Hydro will not charge a generator for an expansion if:

- the expansion has been filed with the OEB by Oakville Hydro pursuant to the deemed condition of Oakville Hydro's distribution licence
- the expansion is mandated by the OEB
- the costs of the expansion are at or below the renewable energy generator facility's renewable energy expansion cost cap as set by the OEB

If the costs of the expansion are above the renewable energy generator facility's renewable energy expansion cost cap as set by the OEB, the generator will pay the amount above the cost cap.

## **DISTRIBUTION ACTIVITIES (GENERAL)**

### **2.1.2.1 Capital Contribution**

Oakville Hydro will perform an economic evaluation to determine whether the future revenue from the Customer will pay for the capital and on-going operating, maintenance and overhead costs of the Expansion or Enhancement project (refer to methodology and assumptions in the DSC—Appendix B). At the discretion of Oakville Hydro, the capital costs for the Expansion may include additional costs associated with the full use of Oakville Hydro's existing spare facilities or equipment, which may result in an adverse impact to future Customers. The Economic Evaluation will be based on the Customer's proposed load as confirmed and accepted by Oakville Hydro.

In performing the Economic Evaluation, should the Net Present Value (NPV) of the costs and revenues associated with the Expansion be less than zero, a capital contribution in the amount of the shortfall is required.

Where the shortfall is to be collected from the Customer by way of a capital contribution, the Customer may seek alternative bids for the portion of the expansion that does not involve existing circuits. When an alternative bid is sought by the Customer, the Customer must use contractors qualified by Oakville Hydro and who are familiar with Oakville Hydro's requirements, including material specifications. Oakville Hydro has the right to approve the constructed facilities prior to connection to its distribution system.

Oakville Hydro will charge a Customer that chooses to pursue an alternative bid any costs incurred by Oakville Hydro associated with the Expansion project, including but not limited to the following:

- costs for additional design, engineering, or installation of facilities required to complete the project;
- costs for administering the contract between the customer and the contractor hired by the customer if the distributor is asked to do so by the customer and the distributor agrees to do it; and
- costs for inspection or approval of the work performed by the contractor hired by the Customer.

### **2.1.2.2 Offer to Connect**

If Oakville Hydro's offer to connect is a firm offer, Oakville Hydro will provide one estimate to the Customer for any plans submitted to Oakville Hydro for an expansion project, at no expense to the Customer. If the Customer submits revised plans, Oakville Hydro may provide a new firm offer for revised plans at the Customer's expense.

If Oakville Hydro's offer to connect is an estimate of the costs to construct the expansion and not a firm offer, the final amount charged to the Customer will be based on actual costs incurred. Oakville Hydro will calculate the first estimate and the final payment at no expense to the Customer.

## **DISTRIBUTION ACTIVITIES (GENERAL)**

### **2.1.2.3 Collection of Capital Contributions**

The capital contribution collected from the Customer is to be consistent with the respective Customer Class as outlined below:

#### **Class 1 – Residential Single Service:**

(No Transformation required on private property)

- Capital contribution **may be** collected from Customer.

#### **Class 2 - General Service (Below 50 kW) Single Service:**

(No Transformation required on private property)

- Capital contribution **may be** collected from Customer.

#### **Class 3 - General Service (50 – 2500 kW):**

- Capital contribution **will be** collected from Customer.

#### **Class 4 - General Service (Above 2500 kW):**

- Capital contribution **will be** collected from Customer.

**Note:** Customers who own high-voltage switchgear and have a demand less than 2500 kW are included in General Service (2500 kW and up)

#### **Class 5 –Embedded Distributor:**

- Capital contribution **will be** collected from Customer

### **2.1.2.4 Settlement of Capital Contributions**

The initial demand proposed by the Customer must be reasonable and shall be subject to acceptance by Oakville Hydro Upon the earlier of assuming the expansion assets or five years from the project commencement date, Oakville Hydro will complete a final economic evaluation based on forecasted revenues, actual costs incurred and the methodology described in DSC, Appendix B.

If the capital contribution amount resulting from the final economic evaluation differs from the capital contribution amount resulting from the initial economic evaluation calculation, Oakville Hydro will obtain from the customer, or credit the customer for, any difference between the two calculations.

### **2.1.2.5 Rebates Related to Expansions**

In scenarios where Oakville Hydro is required to install new plant solely for the connection of a Customer, the Customer will be required to pay Oakville Hydro 100% of the calculated shortfall. If within five (5) years from the connection date, or other such timeframe as be

## **DISTRIBUTION ACTIVITIES (GENERAL)**

directed by the Ontario Energy Board, non-forecasted Customers are connected to this new plant without any further capital costs, non-forecasted Customers shall contribute their share and the first Customer will be entitled to a rebate as outlined in Oakville Hydro's rebate process.

### **2.1.2.6 Supply Agreement and Securities**

To keep Oakville Hydro harmless as a result of Oakville Hydro agreeing to reduce the amount of capital contribution required for the Expansion, the General Service (Above 2500 kW) Customers and Large Users shall enter into a Supply Agreement and provide a security deposit to cover the difference between the actual costs incurred by Oakville Hydro and the capital contribution(s) paid by the Customer.

With each subsequent renewal of the security deposit, the Customer's liability shall be reduced by an amount equal to the actual incremental revenue collected since the in-service date. The residual debt, if any, is due 25 years after the in-service date, or upon termination of the Supply Agreement. The obligation to pay any outstanding amount shall survive the termination of the Supply Agreement. An irrevocable (standby) letter of credit or a letter of guarantee from a chartered bank, trust company or credit union is acceptable in lieu of a cash deposit. This security deposit is in addition to any other charges or deposits that may be required by Oakville Hydro and is to be provided **prior** to the connection of the Customer to the Oakville Hydro distribution system.

### **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 code. 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 DSC provides for the ability of a Distributor to deny connections. A Distributor is not obligated to connect a building within its service area if the connection would result in any of the following:

- Contravention of existing laws of Canada and the Province of Ontario;
- Violation of conditions in Oakville Hydro's Distribution Licence;
- A material adverse effect on the reliability or safety of the distribution system;
- Imposition of an unsafe work situation beyond normal risks inherent in the operation of the distribution system;
- A material decrease in the efficiency of the distributor'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 Oakville Hydro money for distribution services or non-payment of a security deposit

## **DISTRIBUTION ACTIVITIES (GENERAL)**

If Oakville Hydro refuses to connect a building in its service area that lies along one of its distribution lines, Oakville Hydro shall inform the person requesting the connection of the reasons for the denial, and where Oakville Hydro is able to provide a remedy, make an offer to connect. If Oakville Hydro is unable to provide a remedy to resolve the issue, it is the responsibility of the Customer to do so before a connection can be made.

A building that “lies along” a distribution line may be refused connection to that line should the distribution line not have sufficient capacity for the requested connection.

Oakville Hydro may refuse to connect a Customer as long as the Customer remains in arrears on payment of a security deposit or for competitive electricity supply services, or for non-competitive electricity services provided under Standard Supply Service. Oakville Hydro’s right to refuse reconnection may be exercised regardless of whether a Customer requests service under the Standard Supply Service or from a retailer.

### **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 and must also meet Oakville Hydro’s requirements. Oakville Hydro requires notification from the Electrical Safety Authority of this approval prior to the energization of a Customer’s supply of electricity. Any drawings supplied by Oakville Hydro referring to Customer owned equipment are to be used as a guide only. Customers are required to comply with the Electrical Safety Authority Code. Services that have been disconnected for a period of six months or longer must also be re-inspected and approved by the Electrical Safety Authority, prior to reconnection.

Temporary services, typically used for construction purposes and for a period of twelve months or less, must be approved by the Electrical Safety Authority and must be re-inspected at the Customer’s expense should the period of use exceed twelve months.

Customer-owned substations must be inspected by both the Electrical Safety Authority and Oakville Hydro

All Customer owned civil work must be inspected and approved by Oakville Hydro prior to the installation of Oakville Hydro equipment.

Duct banks shall be inspected and approved by Oakville Hydro prior to the pouring of concrete and again before backfilling. Connections made to existing concrete duct banks or cable chamber shall be done only by a contractor approved by Oakville Hydro. All work done on existing Oakville Hydro’s plant must be authorized by Oakville Hydro and carried out in accordance with all applicable safety acts and regulations.

At least two normal working days are necessary for Oakville Hydro to energize a new or enlarged electrical service from the receipt of written approval by the Electrical Safety Authority provided that all Oakville Hydro conditions are satisfied. A longer time interval may

## **DISTRIBUTION ACTIVITIES (GENERAL)**

be required if it is necessary to arrange for power interruption to other Customers. During extremely busy periods, Oakville Hydro, due to previously scheduled commitments and limited resources, may be required to energize the service after normal business hours.

Metering equipment shall be completely inspected and approved by Oakville Hydro prior to energization.

Where the Conditions of Service are not complied with prior to inspection and approval, the Customer is responsible for the cost of any and all damages to Oakville Hydro's distribution system and any associated costs incurred by Oakville Hydro in order to address the Customer's non-compliance with these Conditions of Service. The Customer's service shall be disconnected immediately until these conditions are satisfied.

### **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, Oakville 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*, formal agreements, easements and law.

In the absence of existing agreements, Oakville Hydro is not obligated to relocate the plant. However, Oakville Hydro shall resolve the issue in a fair and reasonable manner. Resolution in a fair and reasonable manner will include a response to the requesting party that explains the feasibility or unfeasibility of the relocation and a fair and reasonable charge for relocation based on cost recovery principles. Feasibility considerations may include, but may not be limited to, technical considerations and availability of alternate locations.

It is understood that there are existing situations where aerial distribution plant crosses a third party property to service a customer. If relocation of such an aerial crossing is required or requested, the cost of the relocation is to be borne by the party requesting the relocation.

When requested by a Customer to relocate distribution system facilities, all relocated services will be installed below grade, in accordance with Oakville Hydro's specifications for underground services.

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

## DISTRIBUTION ACTIVITIES (GENERAL)

### 21.6 Easements

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

The Customer shall, at no cost to Oakville Hydro, grant where required an easement to permit installation and maintenance of service. The width and extent of this easement shall be determined by Oakville Hydro. The easement must be granted prior to energization of the service. Required easements are for Oakville Hydro facilities only, no other utilities or services are to be located within the easement, with the exception of other utility or service crossings.

To maintain the reliability, integrity and efficiency of the distribution system, Oakville 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 Oakville Hydro facilities are to be located on private property, or crosses over the property of a third party to serve property other than property where the facilities are located and/or where Oakville Hydro deems it necessary.

The Customer will prepare at its own cost any required reference plan and associated easement documents to the satisfaction of Oakville Hydro prior to its registration and registering of the easement plan. Four copies of the deposited reference plan must be supplied to Oakville Hydro prior to the preparation of the easement documents. Details will be provided upon application for service. The Customer is responsible for registering both the reference plan and the easement documents.

### 21.7 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

Oakville Hydro shall only connect a Building for a new or modified supply of electricity upon receipt by Oakville Hydro of a completed and signed original or faxed application for service in a form acceptable to Oakville Hydro, payment to Oakville Hydro of any applicable connection charge as outlined in Section 5, Table 1, payment of any security deposit as outlined in Section 2.4.3 of these Conditions of Service and an inspection and approval by the Oakville Hydro and, where necessary, the Electrical Safety Authority, of the electrical equipment for the new service. Oakville Hydro may also require a Customer to enter into a Connection Agreement in a form acceptable to Oakville Hydro. Applications for service and Connection Agreements are not transferable.

#### 2.1.7.2 Implied Contract

In all cases, notwithstanding the absence of a written contract, Oakville Hydro has an implied contract with any Customer that is connected to Oakville Hydro's distribution system and

## **DISTRIBUTION ACTIVITIES (GENERAL)**

receives distribution services from Oakville Hydro. The terms of the implied contract are embedded in Oakville Hydro's Conditions of Service, Oakville Hydro's rate schedules, Oakville Hydro's distributor licence, the Rate Handbook, the DSC, the SSS Code and the RSC, as amended from time to time.

Any Person or Persons who take(s) or use(s) electricity from Oakville Hydro shall be liable for payment for such electricity. Any implied contract for the supply of electricity by Oakville Hydro shall be binding upon the heirs, administrators, executors, successors or assigns of the Person or Persons who took and/or used electricity supplied by Oakville Hydro.

### **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.
- generation

### **2.1.7.4 Opening and Closing of Accounts**

An Owner or occupant that wishes to become a Customer of Oakville Hydro and to open an account for the supply of electricity by Oakville Hydro must complete and sign an application for service or complete the online application form available on Oakville Hydro's website and deliver any required security deposit as outlined in Section 2.4.3. The application for service must be received by Oakville Hydro one week prior to the required service date. The customer shall be responsible for electricity consumed after 12:00 a.m. on the date that the account is opened.

Connection charges may also be payable by the Owner at the time of delivering the application for service or at a later date. In the case of a corporation, proof of identity of the authorized signing officer of the corporation will be required, and information as to the status of the corporation may be required at Oakville Hydro's discretion. At a minimum, one piece of identification will be required.

Information provided on the application form may be disclosed to Halton Region for the purposes of collecting unpaid water and wastewater charges, including collection through the addition of the unpaid charges to the property's tax roll. Information regarding a tenant's water or wastewater billing history or arrears may be disclosed to the owner of the property.

Information provided on the application form may be collected from or disclosed to a consumer reporting agency for the purpose of assessing your risk of non-payment or to aid in the collection of unpaid amounts owing by you to Oakville Hydro or Halton Region.

The Owner and, where applicable, the occupant, or the authorized signing officer of the Owner and/or occupant in the case of a corporation, shall execute the application for service



## **DISTRIBUTION ACTIVITIES (GENERAL)**

and deliver the security deposit if required and proof of identity. Appropriate means are in person, by mail, courier, fax and online at [www.oakvillehydro.com](http://www.oakvillehydro.com).

If a request to open an account is received by a third party, a letter will be sent to the prospective customer within 15 days of opening the account. The account will not be set up if the prospective customer has not approved the opening of the account within 15 days of the letter. A solicitor or person with Power of Attorney can agree on behalf of the customer to the opening of an account.

Oakville Hydro and an owner or landlord may enter into an agreement where the owner or landlord agrees to automatically assume responsibility for paying for continued service after the closure of a tenants account.

Oakville Hydro may require a Customer to enter into a Connection Agreement in a form acceptable to Oakville Hydro

A Customer who wishes to close an account with Oakville Hydro (for example, because the Customer moves to another location) must notify Oakville Hydro one week prior to the moving or closing date. The Customer shall be responsible for payment to Oakville Hydro for the supply of electricity until the date that the account is closed. This date may be later than the desired termination date if the Customer's notification is not received far enough in advance of the desired termination date to allow Oakville Hydro a reasonable period of time to close the account. The customer that closed the account is responsible for electricity consumed until 11:59 p.m. on the termination date.

Notwithstanding the receipt of a written request from an Owner or landlord, Oakville Hydro may refuse to terminate the supply of electricity to an Owner's Building when there are occupant(s) in the Building (for example, during certain periods of the winter).

Both the Owner and the occupant are responsible for notifying Oakville Hydro of any change in ownership and/or occupancy of a Building.

### **2.1.8 Pole and Structure Attachments**

No attachments shall be made to any pole or other structure of Oakville Hydro without the prior written consent of Oakville Hydro

It is a precondition of any consent being granted by Oakville Hydro to anyone making attachments to any pole or other structure of Oakville Hydro that the attacher enter into an "Agreement for Licensed Attachment" with Oakville Hydro in Oakville Hydro's current standard form. A condition of any attachment remaining on any pole or other structure of Oakville Hydro is the attacher's strict compliance with the "Agreement for Licensed Attachment" entered into by the attacher with Oakville Hydro, including timely payment of the annual Attachment License Fee. Anyone making attachments to any pole or other structure of Oakville Hydro must comply with all requirements and standards of the Electrical Safety Authority and the Canadian Standards Association relative thereto.

## **DISTRIBUTION ACTIVITIES (GENERAL)**

Where an attachment to any pole or other structure of Oakville Hydro would occupy the right of way of the Town of Oakville, the Regional Municipality of Halton or the Province of Ontario, it is a precondition for any consent being granted by Oakville Hydro in relation to such attachment that Oakville Hydro be provided with the written consent or consents of whichever of the Town, Region or Province controls the right of way.

All costs and liability related to attachments made to the poles and other structures of Oakville Hydro are the responsibility of the attacher.

Due to the high demand for attachment rights in the communications space on the poles of Oakville Hydro, only one support strand or communications cable may be attached to any such pole by an attacher and all its associates (as defined in the Ontario Business Corporations Act). Due to engineering, safety, pole load, congestion and aesthetic considerations, only three locations are allowed for the attachment of support strands and communications cables in the communications space on any pole of Oakville Hydro

Unacceptable attachments include privately owned electrical service equipment and lighting, private signs, banners, posters and notices and privately owned brackets and planters. Any unacceptable attachments will be removed by Oakville Hydro at the attacher's expense. It is the policy of Oakville Hydro to enforce Section 47 of the Electricity Act, 1998 with respect to unacceptable attachments of all kinds.

## 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.*

Oakville Hydro shall not be liable for any damages or claims as a result of the disconnection of service.

Oakville Hydro reserves the right to disconnect the supply of electrical energy for causes not limited to:

- contravention of the laws of Canada or the Province of Ontario;
- overdue amounts payable to Oakville Hydro for the distribution or retail of electricity;
- adverse effect on the reliability and safety of the distribution system;
- imposition of an unsafe worker situation beyond normal risks inherent in the operation of the distribution system;
- a material decrease in the efficiency of the distributor's distribution system;
- electrical disturbance propagation caused by the Occupant's equipment that is not corrected in a timely fashion;
- a materially adverse effect on the quality of distribution services received by an existing connection;
- discriminatory access to distribution services;
- inability of Oakville Hydro to perform planned inspections and maintenance or to access the meter;
- failure of the Customer or Customer to comply with a directive of Oakville Hydro made for purposes of meeting its Licence obligations; or
- any other conditions identified in this Conditions of Service document.

Oakville Hydro may disconnect the supply of electricity to a Customer without notice in accordance with a court order, or for emergency, safety or system reliability reasons. Oakville Hydro may also disconnect the supply of electricity if it has not received an application for service.

### 2.2.1 Disconnection & Reconnection – Process and Charges

All connections, disconnections and reconnections on Oakville Hydro's side of the Customer's service entrance must be performed by Oakville Hydro employees or its appointed agents and shall be arranged in advance by the Customer or contractor. See Section 1.7.2 – Safety of Equipment.

Disconnection for Non-payment of Account

Oakville Hydro may disconnect service for non-payment of amounts owed for electricity charges as prescribed by the Ontario Energy Board. As a condition of its licence,

## **DISTRIBUTION ACTIVITIES (GENERAL)**

Oakville Hydro is not permitted to disconnect a residential customer from November 15<sup>th</sup> of one year to April 30<sup>th</sup> of the following year, the Disconnection Ban Period.

Before an account is disconnected, Oakville Hydro will provide a friendly reminder at least seven calendar days following the due date. If the bill is still unpaid ten calendar days after the friendly reminder call, a collection letter will be hand delivered to the service location giving 10 calendar days notice for disconnection of service for non payment. In compliance with the Distribution System Code, a copy of the Fire Safety Notice of the office of the Fire Marshall will be left at the time that the collection letter is delivered. For Residential customers, we will make a reasonable effort to contact the customer one final time, in person or by telephone at least 48 hours before the scheduled disconnection date and advise of the availability of an arrears management program.

An Arrears Management Program is available for Residential customers unable to pay their electricity charges. A down payment of 15% of the arrears plus any overdue interest charges (not including service charges such as reconnection charges) may be required. If a Residential customer owes less than twice their average monthly bills after the down payment has been applied, the minimum length of time to pay is five months. If the customer owes more than twice their average monthly bill after the down payment has been applied, the minimum length of time to pay is 10 months, Oakville Hydro has the right to cancel the agreement if a customer defaults on the arrears payment or current bill payment more than once.

### Low Income Arrears Management Payment Program

a) Eligible low-income customers are allowed more time to pay outstanding balances. Those time periods are:

- 8 months if you owe an amount less than twice your average monthly bill
- 12 months if you owe more than twice your average monthly bill but less than five times your average monthly bill
- 16 months if you owe more than five times your average monthly bill

b) A 10% down payment is required. If the Customer breaks their promise more than two times, a notice is sent giving them 10 calendar days before the agreement is cancelled, and the agreement must be reinstated if the customer pays in full before the cancellation date. If a service has been disconnection, the disconnection and reconnection fees are not applied.

c) Once out of the program, a new disconnection notice is required. This program is available to eligible low-income customers once per year. If there is another request less than 12 months from the completion of the previous arrears agreement, the standard terms for all residential customers will apply.

- The distributor shall waive all service charges related to collection, disconnection, non-payment or load control devices. Late payment charges up to the date of the

## **DISTRIBUTION ACTIVITIES (GENERAL)**

arrears payment agreement are not waived but no further late payment charges may be applied against the amount included in the agreement.

There are other payment programs available for low income residential customers to assist them with paying their electricity bills. Customers must be qualified by a Social Service or Government agency.

Residential customers who have provided documentation from a physician that disconnection of service will pose a significant health risk, must receive 60 days notice before being disconnected for non-payment. During the disconnection service period, if a registered charity, government agency or a third party who had previously been designated by the customer to receive any disconnection notices, advises Oakville Hydro that they are attempting to arrange assistance to help a Residential customer pay their bill, Oakville Hydro must suspend disconnection action for 21 days. Oakville Hydro must act on the disconnection notice within 11 days of the issuance of the notice or the lifting of a suspension, otherwise a new disconnection must be issued.

For non-residential customers, the service may be disconnected at any time during the year, and not restored until satisfactory payment arrangements have been made, including costs of reconnection and payment of the appropriate security deposit as outlined in Section 2.4.3. Residential customers will not be disconnected during a Disconnection Ban Period.

Service will be reconnected within two business days of payment or entering into an arrears management program. A standard reconnection fee will apply. In compliance with the Distribution System Code, a copy of the Fire Safety Notice of the office of the Fire Marshall will be left at the service location if the service is disconnected. Such discontinuance of service does not relieve the Customer of the liability for arrears, nor shall Oakville Hydro be liable for any damage to the Customer's premises resulting from such discontinuance of service.

### Disconnection due to non-contract

Where an account has been closed and Oakville Hydro has not received an application for service at that address, a notice will be left at the property requesting that the occupant contact Oakville Hydro within 24 hours to establish an account. If an account is not established within two business days, Oakville Hydro may disconnect the service until such time as an application for service is received.

### Disconnection due to adverse conditions

Upon discovery that an adverse condition or disturbance propagation (feedback) exists, Oakville Hydro will notify the Customer to rectify the condition at once. In case the Customer fails to make satisfactory arrangements to remedy the condition within seven calendar days 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 and such changes inspected by the Electrical Safety Authority and Oakville Hydro

## **DISTRIBUTION ACTIVITIES (GENERAL)**

### Disconnection of vacant properties

Upon receipt of a request for Disconnection from the Owner to disconnect its building and the building is not occupied by a Customer, Oakville Hydro will disconnect the service. Upon presentation of a demolition permit from the Town of Oakville, Oakville Hydro will remove Oakville Hydro's connection assets at the Customer's cost as outlined in Section 5, Table 1 of these Conditions of Service.

### Water and wastewater arrears

Please note that unpaid water and wastewater arrears may result in an interruption to your water services. Unpaid water and wastewater charges are transferred to the Region of Halton. The outstanding amounts may be added to your property tax account.

## **2.2.2 Unauthorized Energy Use**

Oakville Hydro reserves the right to disconnect the supply of electrical energy to an Owner and/or occupant for causes including, but not limited to, energy diversion, fraud or abuse on the part of the Customer and/or any other party in respect of the premises to which electrical energy is being supplied. Such service may not be reconnected until the Owner or, where the occupant is the Customer, the Owner and/or occupant rectifies the condition, provides a security deposit in accordance with Section 2.4.3 and provides full payment to Oakville Hydro of all costs incurred by Oakville Hydro arising from the unauthorized energy use, including without limitation the cost of electricity consumed at the premises, all rates and charges applicable to the electricity consumed at the premises, inspections, repair costs, and the cost of disconnection and reconnection.

## 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.*

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

Customers requiring a higher degree of security than that of normal supply are responsible to provide their own back-up or standby facilities.

Oakville Hydro will endeavour to maintain voltage variation limits under normal operating conditions at the Ownership Demarcation Point, as specified by the latest edition of the Canadian Standards Association, C235 "Preferred Voltages for AC Systems, 0 – 50,000 volts".

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 the Distributor's supply. Damages resulting from the failure to install protective apparatus shall be at the Customer's expense.

During an emergency, Oakville Hydro may interrupt supply to a Customer in response to a shortage of supply, or to make repairs to the distribution system, or while repairs are being made to Customer-owned equipment.

It may be necessary to interrupt a Customer's supply to maintain or improve the Oakville Hydro distribution system, or to provide new or upgraded services to other Customers. Whenever practical and cost effective, as determined by Oakville Hydro, arrangements suitable to the Customer and Oakville Hydro will be made to minimize any inconvenience. Where a Customer requests that such planned activities occur outside normal working hours, then the Customer shall pay the additional costs. Except in cases of extreme emergency involving danger to life and limb or impending severe equipment damage, or due to practical considerations, Oakville Hydro will endeavor to provide the Customer with reasonable advance notice of power interruptions.

Oakville Hydro or its agents shall have the right to access a property in accordance with Section 1.7.1, Access to Customer Property of these Conditions of Service.

To assist with distribution system outages or emergency response, Oakville Hydro may require a Customer to provide Oakville Hydro with emergency access to Customer-owned

## **DISTRIBUTION ACTIVITIES (GENERAL)**

distribution equipment that normally is operated by Oakville Hydro or Oakville Hydro -owned equipment on Customer'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**

In response to a Customer power quality concern, where the utilization of electric power adversely affects the performance of electrical equipment, Oakville Hydro will perform investigative analysis to attempt to identify the underlying cause. Depending on the circumstances, this may include review of relevant power interruption data, trend analysis, and/or use of diagnostic measurement tools.

Upon determination of the cause resulting in the power quality concern, where it is deemed a system delivery issue and where industry standards are not met, Oakville Hydro will recommend and/or take appropriate mitigation measures. Oakville Hydro will take appropriate actions to control power disturbances found to be detrimental to the Customers. If Oakville Hydro is unable to correct the problem without adversely affecting other Oakville Hydro Customers, then it is not obligated to make the corrections. Oakville Hydro will use appropriate industry standards (such as IEC or IEEE standards) and good utility practice as a guideline. If the problem lies on the Customer's side of the system, Oakville Hydro may seek reimbursement from the Customer for the costs incurred in its investigation.

#### **2.3.2.2 Prevention of Voltage Distortion on Distribution**

Customers having non-linear load shall not be connected to Oakville Hydro's distribution system unless power quality is maintained by implementing proper corrective measures such as installing proper filters, and/or grounding. Further, to ensure the distribution system is not adversely affected, power electronics equipment installed must comply with IEEE Standard 519-1992. The limit on individual harmonic distortion is 3%, while the limit on total harmonic distortion is 5%.

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

If Oakville Hydro determines the Customer's equipment may be the source causing unacceptable harmonics, voltage flicker or voltage level on Oakville Hydro's distribution system, the Customer is obligated to assist Oakville Hydro by providing required equipment information, relevant data and necessary access for monitoring the equipment.



## **DISTRIBUTION ACTIVITIES (GENERAL)**

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

If an undesirable system disturbance is being caused by Customer's equipment, the Customer will be required to cease operation of the equipment until satisfactory remedial action has been taken by the Customer at the Customer's cost. If the Customer does not take such action within a reasonable time, Oakville Hydro may disconnect the supply of power to the Customer.

### **2.3.2.5 Notification for Interruptions**

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

Notice may not be given where work is of an emergency nature involving the possibility of injury to persons or damage to property or equipment.

However, during an emergency, Oakville Hydro may interrupt supply to a Customer in response to a shortage of supply or to effect repairs on Oakville Hydro's distribution system or while repairs are being made to Customer-owned equipment.

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

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

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 Customers (registered on life support) as their available backup power, Oakville Hydro will endeavor to contact these Consumers but will not be liable in any manner to the Customers for failure to do so.

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

Oakville Hydro will endeavour to notify Customers prior to interrupting the supply to any service. 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 damaging to Oakville Hydro or the public, service may be interrupted without notice.

## **DISTRIBUTION ACTIVITIES (GENERAL)**

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

Oakville Hydro will exercise reasonable diligence and care to deliver a continuous supply of electrical energy to the Customer. However, Oakville Hydro cannot guarantee a supply that is free from interruption.

If the power supply is disrupted, the Customer should ensure that the failure is not due to an internal problem within the installation. The Customer should obtain the services of an electrical contractor to investigate and carry out necessary repairs. If, on examination, it appears that Oakville Hydro's main source of supply has failed, the Customer should report these conditions at once to Oakville Hydro (See Section 1.5, Contact Information.) If it is determined that the power problem was internal to the building, Oakville Hydro may seek reimbursement from the Customer for the cost incurred in its investigation.

Oakville Hydro Emergency Service or Trouble Calls which indicate damage or impending damage to Oakville Hydro plant or property are attended to immediately at Oakville Hydro's expense, unless others are found liable in which case a work authorization form shall be completed and signed by the party deemed liable prior to the commencement of any repairs or replacement. Oakville Hydro operates an Emergency Response Centre 24 hours a day to provide emergency service to Customers. Oakville Hydro will initiate restoration efforts as rapidly as practicable.

### **2.3.2.9 Outage Reporting**

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

## **2.3.3 Electrical Disturbances**

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

Oakville 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.

Voltage fluctuations and other disturbances can cause flickering of lights and other serious difficulties for Customers connected to Oakville 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 Customer 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 Oakville Hydro

## DISTRIBUTION ACTIVITIES (GENERAL)

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. Oakville Hydro will assist in attempting to resolve any such difficulties at the Customer's expense.

Customers 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 Oakville Hydro for both Oakville 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 older sections of the town the primary voltage will be 13.8/8 kV grounded wye, three phase, four wire; or 4.16/2.4kV grounded wye, three phase four wire.

#### 2.3.4.2 Supply Voltage

Oakville Hydro is able to provide the following supply voltages:

Primary:

16/27.6 kV	three phase, four wire
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Secondary:

120/240 V	single phase, three wire
120/208 V	three phase, four wire
347/600 V	three phase, four wire

Although Oakville Hydro can provide the above voltages, they are not always available from the portion of the distribution system that the building "lies along". The Customer must check with Oakville Hydro to find out whether or not a particular voltage is available at any particular site. It may be necessary to expand or enhance the distribution system in order to provide the requested voltage. If an expansion or enhancement is required, Oakville Hydro may require that the Customer contribute a portion of the cost of this work.

### **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.*

Oakville Hydro maintains service voltage at the Customer's service entrance within the guidelines of C.S.A. Standard CAN3-C235-87 (latest edition) which allows variations from nominal voltage of,

- 5% for Normal Operating Conditions
- 8% for Extreme Operating Conditions

Where voltages lie outside the indicated limits for Normal Operating Conditions but within the indicated limits for Extreme Operating Conditions, improvement or corrective action should be taken on a planned and programmed basis, but not necessarily on an emergency basis. Where voltages lie outside the indicated limits for Extreme Operating Conditions, improvement or corrective action should be taken on an emergency basis. The urgency for such action will depend on many factors such as the location and nature of load or circuit involved, the extent to which limits are exceeded with respect to voltage levels and duration, etc.

Oakville Hydro shall practice reasonable diligence in maintaining voltage levels, but is not responsible for variations in voltage from external forces such as operating contingencies, exceptionally high loads and low voltage supply from the transmitter or host Distributor. Oakville Hydro shall not be liable for any delay or failure in the performance of any of its obligations under this Conditions of Supply due to any events or causes beyond the reasonable control of Oakville Hydro Electricity Distribution Inc, 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, lockout, labour dispute, 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 Back-up Generators**

*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 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 backup generation equipment should be described in this section.*

Customers with portable or permanently connected generation capability used for emergency back-up shall comply with all applicable criteria of the Ontario Electrical Safety Code. In particular, the Customer shall ensure that Customer's emergency generation does not parallel with Oakville Hydro's system without a proper interface protection and does not adversely affect Oakville Hydro's distribution system. Where a Customer's portable or permanently connected generator causes damage to Oakville Hydro's electrical distribution system, the Customer is responsible for the cost of all repairs to the electrical distribution system as a result of the Customer's connection.

Customers with permanently connected emergency generation equipment shall notify Oakville Hydro regarding the presence of such equipment.

### **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.*

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

For secondary (below 750V) metering installations, Oakville Hydro will supply, install, own and maintain all meters, instrument transformers, ancillary devices, and secondary wiring required for revenue metering.

For primary (above 750V) metering installations, Oakville Hydro will supply, install, own and maintain all meters, ancillary devices, and secondary wiring required for revenue metering. Oakville Hydro will install, own and maintain the instrument transformers. Instrument transformers required for primary metering will be specified and purchased by Oakville Hydro at the expense of the customer, as part of the variable connection charge.

## **DISTRIBUTION ACTIVITIES (GENERAL)**

Additional metering requirements are listed in the Distribution System Code. Metered Market Participants in the Independent Electricity System Operator (“IESO”) administered wholesale market must meet or exceed all IESO metering requirements.

### **2.3.7.1 General**

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

Oakville Hydro will typically install metering equipment at the Customer supply voltage. The Customer must provide a convenient and safe location satisfactory to Oakville Hydro, reserved solely for metering equipment, with direct outside access acceptable to Oakville Hydro with a locking mechanism in conformity with Section 3.3.2 and the Electrical Safety Authority, for the installation of Oakville Hydro revenue metering equipment, meters, wires and ancillary equipment, free of charge or rent. Customers will allow only a properly identified employee or authorized agent of Oakville Hydro to read, remove, inspect, connect, replace, adjust, or repair Oakville Hydro metering, service entrance equipment, communications equipment, or other plant located on the Customer’s premises.

Customers will allow Oakville Hydro employees and authorized agents free access at all reasonable hours to Oakville Hydro meters, wires and other equipment. Where safety or reliability of the electrical distribution system is at risk, free access will be required at all times.

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

The location allocated by the owner for Oakville Hydro metering shall provide direct access for Oakville 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”); and
- 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.

Where Oakville Hydro deems self-contained meters to be in a hazardous location, the Customer shall provide a meter cabinet or protective housing in accordance with these Conditions of Service.

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

## **DISTRIBUTION ACTIVITIES (GENERAL)**

**Multi-Unit Sites** Developers of new multi-unit residential buildings and new and existing condominiums (collectively, “MURBs”), or boards of directors of condominiums may choose to have Oakville Hydro install smart suite metering, or to have Oakville Hydro install a bulk interval meter for the purpose of enabling smart sub-metering by a licensed sub-metering service provider.

### **Installation of Smart Metering by Oakville Hydro**

Upon the request of a MURB developer or a condominium board of directors, Oakville Hydro will install smart metering that meets the functional specification of Ontario Regulation 425/06 – Criteria and Requirements for Meters and Metering Equipment, Systems and Technology (suite metering). The developer or condominium board of directors will be required to enter into an agreement for the Installation of a Suite Metering Program with Oakville Hydro. In that case, each separate residential and commercial unit, as well as common areas, will become direct individual customers of Oakville 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 suite 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 contestable work is done in accordance with Oakville 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 the date of commissioning.

Where a MURB developer or condominium board of directors transfers the metering facilities installed under the alternative bid option to Oakville Hydro, and provided Oakville Hydro has inspected and approved the facilities installed, Oakville 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 Oakville Hydro’s fully allocated cost to install the metering facilities.

### **Common Area Metering**

Where units in a MURB are to be suite metered, the responsible party (MURB, developer, condominium board of directors, or landlord) shall enter into a contract with Oakville Hydro for the supply of electrical energy for all common or shared services. Common or shared services typically include lighting of all common areas share 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.

### Multi-unit Residential Metering

Where the Developer has entered into an agreement with Oakville Hydro to be the provider of Suite Metering, the developer will supply and install vertical wire troughs connected to suite breaker panels to house suite meter current transformers. The troughs will be enclosed and equipped with hinged access doors. Each trough will have a minimum width of 400 mm and depth of 150 mm, with a minimum height equal to the main breaker panel. Each line conductor feeding a suite or common element load will be routed through the trough and will have an Oakville Hydro supplied current transformer installed on it.

Multi-unit residential meters shall be installed immediately adjacent to suite meter breaker panels and supplied with a 3-pole 15 amp 120/208 volt (or other as specified) power supply. All current transformer secondary leads are to be properly terminated at the meter termination block in conformance with manufacture specifications.

Developer will supply and install all required suite meter system communication equipment including communication cabling and conduit.

Developer will be responsible for installing Transponders, power supplies and auxiliary meter equipment as specified by Oakville Hydro.

### Installation of Bulk Interval Metering by Oakville Hydro

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

**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 1.83 m or less 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 located indoors.

When the Customer is required to supply and install an Oakville Hydro approved meter socket for the use of Oakville Hydro's self-contained socket meters, the main switch ratings and supply voltages listed in Table 5 appended to these Conditions of Service apply.

When the Customer is required to supply and install a meter cabinet to contain Oakville Hydro's metering equipment, the main switch ratings and supply voltages listed in Table 5 appended to these Conditions of Service apply.



## DISTRIBUTION ACTIVITIES (GENERAL)

Meter centers installed for individual metering applications must meet the requirements specified in Table 7 appended to these Conditions.

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. Oakville Hydro shall not be liable for any loss or damage resulting from the incorrect identification of services or equipment.

**Service Mains Limitations** The metering provision and arrangement for service mains in excess of either 200 A or 800 V shall be submitted to Oakville Hydro for approval before building construction begins. Additional standards and requirements for services metered above 800 V can be made available upon request.

**Special Enclosures** Specially constructed enclosures for primary metering may be permitted for outdoor use upon Oakville Hydro's approval of a written application for use.

**Meter Loops** 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 Oakville Hydro prior to installation. Mineral insulated, solid or hard drawn wire conductors are not acceptable for meter loops.

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

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

**Doors** Side-hinged doors shall be installed over all live electrical equipment where Oakville 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°.

**Auxiliary Connections** All connections to circuits such as fire alarms, exit lights and Customer instrumentation shall be made to the load side of Oakville Hydro's metering.

No Customer equipment shall be connected to any part of the Oakville Hydro metering circuit.

**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.

## **DISTRIBUTION ACTIVITIES (GENERAL)**

### **2.3.7.2 Instrument Transformer Compartments**

*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 6 appended to these Conditions. A separate meter cabinet must be supplied and installed by the Customer, located to the satisfaction of Oakville Hydro and as close as possible to the instrument transformer compartment.

The cabinet and compartment will be located in the same electrical room and connected by an empty 31 mm conduit. The length of this conduit shall not exceed 20 m, and shall include a maximum of three 90° bends. The conduit will be provided for the exclusive use of Oakville Hydro Fittings with removable covers are permitted only if designed to be sealed.

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 Oakville 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); Oakville 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 with Radio Frequency (RF) technology will be installed for all new or upgraded services where the average peak demand is forecast to be over 50 kW during a calendar year. The Customer will be responsible for the costs associated with the installation of all communications equipment required to support Oakville Hydro's revenue metering. Oakville Hydro will determine the type of communications equipment required for each installation.

Oakville Hydro Customers that request interval metering shall compensate Oakville Hydro for all additional costs associated with that meter, including the capital cost of the interval meter, installation costs associated with the interval meter, ongoing maintenance (including allowance for meter failure), verification and re-verification of the meter, installation and ongoing provision of communications equipment for Oakville Hydro's revenue metering, and cost of metering made redundant by the Customer requesting interval metering.

## **DISTRIBUTION ACTIVITIES (GENERAL)**

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

Residential and general service < 50 kW who have an interval meter installed, will be issued a bill based upon an actual meter reading unless there are exceptional circumstances which require that the bill be issued based upon an estimated meter reading. Oakville Hydro will not issue a bill based on an estimated meter reading more than twice every 12 months.

### **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 shall provide one week's notice of the date the service is to be discontinued so that Oakville Hydro can obtain a final meter reading as close as possible to the final reading date. For smart metered service locations, the final reading will be obtained at midnight of the requested final reading date. The Customer shall provide access to Oakville Hydro or its agents for this purpose. If a final meter reading is not obtained, the Customer shall pay a sum based on an estimated demand and/or energy for electricity used since the last meter reading.

### **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. Oakville 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, Oakville Hydro will determine the correction factors based on the specific cause of the metering error and the Customer's electricity usage history. The Customer shall pay, for all the energy supplied, a reasonable sum based on the reading of any meter formerly or subsequently installed on the premises by Oakville 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 Customer was overcharged, Oakville Hydro will reimburse the Customer for the amount incorrectly billed.

## **DISTRIBUTION ACTIVITIES (GENERAL)**

*Where a billing error, from any cause, has resulted in a Customer being over billed and where Measurement Canada has not become involved in the dispute, Oakville Hydro will correct the bills for a period of up to two years. Where a billing error, from any cause, has resulted in a Customer being under billed and where Measurement Canada has not become involved in the dispute, Oakville Hydro will correct the bills for a period of up to 2 years. If a customer has been under-billed and not responsible for the error, the customer is allowed to pay the under-billed amount in equal installments over the same amount of time of the error up to a maximum of two years. If a customer is responsible for the under-billing error, Oakville Hydro may require payment of the full amount on either the next bill or a separate bill.*

If a customer has been over-billed by an amount equal to or greater than the customer's average bill, the customer can use the credit towards their next bill or request a refund cheque.

If a customer has been over-billed and the amount is less than the customer's average bill, the amount will be credited to their next bill.

### **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 and Oakville Hydro without resorting to the meter dispute test.

Either Oakville Hydro or the Customer may request the service of Measurement Canada to resolve a dispute. If the Customer initiates the dispute, Oakville Hydro will charge the Customer a meter dispute fee if the meter is found to be accurate and Measurement Canada rules in favor of the utility. Further, the disputed meter will be re-installed at the Customer's service location.

## 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 and Charges available upon request from Oakville Hydro or as posted on its website at [www.oakvillehydro.com](http://www.oakvillehydro.com). Notice of Rate revisions shall be published in major local newspapers.

In addition to the monthly service charge for distribution services, distribution volumetric charge, and monthly competitive electricity charges, miscellaneous charges include:

- new account set-up charge
- returned cheque
- collection
- reconnection after hours
- reconnection during hours
- secondary service installation
- temporary service installation
- credit check fee
- overdue interest charge
- other fees and charges as may be approved by the OEB

#### 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. Both Customers' energy supply is delivered through Oakville Hydro's distribution system. Therefore, all service connection requirements applicable to the SSS Customers are also applicable to a third party retailers' Customers.

#### 2.4.1.2 Supply Deposits & Agreements

Where an owner proposes the development of premises that require Oakville Hydro to place orders for equipment for a specific project and before actual construction begins, the owner is required to sign the necessary Supply Agreement and furnish a suitable deposit before such equipment is ordered by Oakville Hydro

An irrevocable (standby) letter of credit in a format acceptable to Oakville Hydro from a chartered bank in lieu of a cash deposit.

## 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 Supply Service (SSS)

All existing Oakville Hydro Customers are Standard Supply Service (SSS) Customers until Oakville Hydro is informed of their switch to a competitive electricity supplier. The Service Transaction Request (“STR”) must be made by the Customer or the Customer’s authorized retailer.

Oakville Hydro shall obtain the electricity required to fulfill its standard supply service obligation through the IESO administered markets or from an embedded retail generator located within the Oakville Hydro’s licensed service area.

### 2.4.2.2 Retailer Supply

Customers transferring from SSS to a retailer shall comply with the STR requirements as outlined in sections 10.5 through 10.5.6 of the Retail Settlement Code.

All requests shall be submitted as an electronic file and transmitted through the Electronic Billing Transaction hub. STRs shall contain information as set out in section 10.3 of the Retail Settlement Code.

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

### 2.4.2.3 Wheeling of Energy

All Customers considering delivery of electricity through the Oakville Hydro distribution system are required to contact Oakville 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 Retail Settlement Code.*

### 2.4.3.1 Security Billing Deposits

Oakville Hydro purchases electricity on behalf of all of its customers and then recovers this cost, along with the cost of distribution, through customer billings. A distributor may impose an amount and type of security requirement on a customer depending on the distributor's assessment of the customer's likely risk of non-payment. A distributor shall not discriminate among customers with similar risk profiles or risk related factors.

As customers switch to competitive retailers and depending on the billing options chosen, the amount of risk exposure for Oakville Hydro will vary, and therefore the amount of the security deposit should be adjusted to reflect the varying levels of risk exposure.

The security deposit for each billing option shall be as follows:

(1) Standard Supply Service

Under this option, Oakville Hydro will bill the customer for all energy and distribution costs. Oakville Hydro is responsible for customer non-payment risk and may require a security deposit depending upon its assessment of the likely risk of non-payment by the customer in accordance with Section 2.4.3.1.

(2) Distributor Consolidated Billing

Under this option, Oakville Hydro will bill the customer for all energy and distribution costs. Oakville Hydro is responsible for customer non-payment risk and may require a security deposit depending upon its assessment of the likely risk of non-payment by the customer in accordance with Section 2.4.3.1.

(3) Retailer Consolidated Billing

Under this option, Oakville Hydro will **not** bill the customer for all energy and distribution costs. The Retailer is responsible for customer non-payment risk. Oakville Hydro **will not** require a security deposit from the customer.

(4) Split Billing (if approved in the future)

## **DISTRIBUTION ACTIVITIES (GENERAL)**

Under this option, Oakville Hydro and a retailer shall each bill the customer for their respective portions of the bill and correspondingly assume non-payment risk. Oakville Hydro may require a security deposit depending upon its assessment of the likely risk of non-payment by the customer in accordance with Section 2.4.3.1.

### **Security Deposit Requirements**

Oakville Hydro reserves the right to collect a security billing deposit from a commercial customer requesting connection services.

Oakville Hydro waives this right:

- a) for customers on retailer consolidated billing;
- b) for government organizations, major banks and trust companies except in respect of those properties that these institutions receive through a foreclosure, receivership, credit protection or bankruptcy proceeding;
- c) for those customers having a good payment history (GPH).

Where Oakville Hydro determines that a security billing deposit is required, Oakville Hydro shall provide the customer with the specific reasons for requiring a security billing deposit from the customer.

### **Security Deposit Installments Payments**

A Commercial customer may provide a security billing deposit in installments not exceeding four equal installments. Where a customer defaults on an installment payment by either not making an installment payment when due or by issuing a cheque that is returned N.S. F. or having a pre-authorized payment returned for insufficient funds, the balance of the deposit immediately becomes due and payable by either cash or certified cheque. Until such payment is received, electrical service to the customer may be discontinued.

### **Good Payment History (GPH)**

A customer is deemed to have a GPH, during the time period under review, as defined in Sections 3.1.8, 3.2.8, 3.3.8 or 3.4.8 where:

- a) the customer has received less than two disconnect notices from Oakville Hydro;
- b) less than two cheques issued by the customer have been returned to Oakville Hydro marked N.S.F.;
- c) less than two pre-authorized payment on behalf of the customer have been returned for insufficient funds; or
- d) a disconnection trip has not been required.

If any of the above events occur due to an error by Oakville Hydro, the customer's GPH shall not be affected.



## DISTRIBUTION ACTIVITIES (GENERAL)

### Amount of Security Deposit

The amount of the security deposit for new customer shall not exceed:

- a) where the previous twelve month billing history is available, billing cycle factor of 2.5 x estimated monthly bill based on the customer's average monthly load with the Oakville Hydro during the most recent twelve consecutive months within the past two years;

or

- b) where the previous twelve month billing history is **not** available, billing cycle factor of 2.5 x the customers average monthly load based on a reasonable estimate made by Oakville Hydro

Where the customer has a payment history which includes two or more disconnect notices in the relevant 12 month period, the customer's deposit will be based on the customer's highest monthly load in the relevant twelve (12) month period.

See Section 3.4.8 1 for further details on non-residential customers that are >2,500 kW.

For the purpose of calculating the estimated bill, the price estimate used in calculating the competitive electricity costs or commodity charge shall be:

- a) for low volume Customers (i.e. those Customers who use less than 250,000 kWh/annually) and those designated Customers who are billed under SSS or distributor consolidated billing :

- effective immediately-

Regulated Price Plan (RPP) determined by the Ontario Energy Board

and

- effective January 1, of each year -

- such other rates as are approved by the OEB from time to time;

- b) for all other customers,

- 8.069 cents per kWh or such other rates as are approved by the IESO from time to time.

### Poor Payment History

A customer is deemed to have a Poor Payment History (PPH), during the time periods under review, as defined in Sections 3.1.8, 3.2.8, 3.3.8, or 3.4.8 where the customer:

- a) has been disconnected on one occasion;
- b) has received two or more disconnect notices;

## DISTRIBUTION ACTIVITIES (GENERAL)

- c) has issued two or more NSF cheques;
- d) has had two or more pre-authorized payments on behalf of the customer returned to Oakville Hydro for insufficient funds;
- e) has tampered with the distribution system or any electrical equipment on the customer's side of the operational demarcation point in order to steal or otherwise avoid billing and payment for power, or where any other person has tampered with the distribution system or any electrical equipment on the customer's side of the operational demarcation point in order to steal power or otherwise avoid billing or payment for power;
- f) has been transferred from retailer consolidated billing to standard service supply by the retailer;
- g) has an unpaid final billing from a previous Oakville location; or
- h) has been subject to litigation or other significant collection activity in respect of the supply of and/or payment for electricity to the customer.

**Chronic Delinquent** Further, a customer is deemed to be a chronic delinquent, during the time periods under review, as defined in Sections 3.2.8, 3.3.8, or 3.4.8 where the customer:

- a) has been disconnected on one occasion;
- b) has received two or more disconnect notices;
- c) has issued two or more NSF cheques;
- d) has had two or more pre-authorized payments returned for insufficient funds;
- e) As a condition of its Licence, Oakville Hydro can not discriminate among customers sharing similar risk profiles except where expressly permitted under the Distribution System Code.

A review of the customer's security deposit will be undertaken as required and at the applicable anniversary date to determine if the amount of the security billing deposit should be increased. The security billing deposit should be returned promptly to the customer where the customer has achieved a GPH as set out in Sections 3.2.8, 3.3.8 and 3.4.8. Where the customer has not achieved a GPH, the amount required for a security billing deposit shall be recalculated in conformity with the security billing deposit requirements outlined above.

Where Oakville Hydro determines that the maximum amount of the security billing deposit is to be adjusted upward, Oakville Hydro will require the customer to pay

## **DISTRIBUTION ACTIVITIES (GENERAL)**

this additional amount at the same time as that customer's next regular bill comes due.

Customers must pay the deposit at the time of establishing an electrical service account. Where the customer decides to pay the deposit in installments, the first installment must be paid at the time of establishing the electrical service account. Oakville Hydro reserves the right to amend its deposit requirements in order to meet its risk management objectives.

Failure to meet the deposit requirement may delay the establishment of electrical service or result in the disconnection of that service.

### **Security Deposit Collateral**

For details on security billing deposit collateral see Sections 3.1.8.3 and 3.2.8.3.

### **Retention of Security Deposits**

A customer may request in writing that Oakville Hydro review the customer's account to determine if the customer has achieved a GPH and is therefore eligible for a refund or whether the security billing deposit requirement is to be adjusted based on the requirements outlined in this Section. Customer's security deposits will be reviewed on a yearly basis.

Upon closing an account, any security billing deposit held by Oakville Hydro shall be refunded by application of a credit to the account. Where the account is then in a credit balance, Oakville Hydro will issue a refund of any credit balance in the account within one month of closing the account.

Where the customer changes to a competitive retailer that uses retailer consolidated billing, or the customer changes billing options from distributor consolidated billing to split billing or retailer consolidated billing, Oakville Hydro shall apply that portion of a security deposit that applies to the commodity portion of the energy bill to the customer's account. Oakville Hydro will not forward any portion of the security billing deposit to a third party.

For details on the retention of security deposits see Sections 3.1.8.1 and 3.2.8.1.

### **Interest on Cash Security Deposits**

Interest shall accrue monthly on security billing deposits made by way of cash or cheque at the Prime Business Rate as published on the Bank of Canada website less two (2) percent. Updated Quarterly.

Interest on security billing deposits shall begin to accrue from the date of receipt by Oakville Hydro at its head office.

On installment security billing deposits, interest shall begin to accrue from the date of receipt by Oakville Hydro at its head office of the last installment payment.

## DISTRIBUTION ACTIVITIES (GENERAL)

The interest accrued shall be paid out once every 12 months or on return or application of the security deposit, or on closure of the customer's account, whichever occurs first.

### 2.4.3.2 Temporary Service Deposit

Oakville Hydro reserves the right to collect a deposit as security for the various electrical equipment that is required to provide a temporary service to a customer. The amount of the security deposit will be based on the value of the equipment installed.

## 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.*

In preparing an energy billing for standard supply service, distributor consolidated billing or split billing, Oakville Hydro includes in its billing a number of charges mandated by third parties, such as:

- The Independent Electricity System Operator (IESO)
  - Under standard supply service - the price of the electrical energy commodity
- Hydro One Networks Inc.
  - Transmission connection charge
  - Transmission network charges
- The Ontario Energy Board (OEB)
  - Electricity Charges
  - Debt retirement charge
  - Wholesale market service charge
  - Rural rate assistance charge
  - Ontario Clean Energy Benefit (Ministry of Energy)
- Retailers
  - Under distributor consolidated billing - the price of the electrical energy commodity

The rates charged for the above services, with the exception of electricity charges that are based on the market price for electricity as invoiced by the IESO, or retailer charges under distributor consolidated billing, are approved by the Ontario Energy Board. The retailer charges for the electrical energy commodity are based on agreements signed by the customer with their retailer.

## **DISTRIBUTION ACTIVITIES (GENERAL)**

In these instances, Oakville Hydro facilitates the operation of the electrical energy market by billing and collecting these amounts on behalf of these third parties.

With respect to the various charges that appear on the billing, Oakville Hydro retains the monthly service charge, the distribution charge (included in the Delivery line) and the standard supply service charge (included in the Regulatory Charges line) on the bill and all of which are approved by the OEB.

### **2.4.4.1 Establishment of Billing Services**

Prior to the establishment of billing services, a customer must provide to Oakville Hydro the following at least five business days prior to the required in service date:

- a) one item of identification;
- b) full payment of any outstanding arrears from a previous account;
- b) a security billing deposit (general service customers); and
- c) a signed service agreement or online application for service.

Failure to meet these requirements will delay the establishment of the supply of electrical energy.

### **2.4.4.2 Establishment of Rate Class**

The establishment of a rate class appropriate to a customer is dependent on the nature of electrical service being supplied to the customer's building.

See Sections 3.1, 3.2, 3.3 and 3.4 and the tariff sheet for further details.

### **2.4.4.3 Billing Frequency**

Oakville Hydro currently issues bills to its Customers on a monthly basis.

Oakville Hydro may also bill a customer on a weekly or bi-weekly basis if the customer's electricity bill exceeds certain thresholds as defined in the Distribution System Code.

### **2.4.4.4 Billing**

Bills for the use of electrical energy may be based on either a metered rate or a flat rate, as determined by Oakville Hydro

Bills for the use of electrical energy may be estimated. See Section 2.3.7.4 Meter Reading for further details.

## **DISTRIBUTION ACTIVITIES (GENERAL)**

The customer may dispute charges shown on the customer's bill or other matters by contacting and advising Oakville Hydro of the reason for the dispute. Oakville Hydro will promptly investigate all disputes with respect to its charges and advise the customer of the results. With respect to non-Oakville Hydro charges, the customer may be directed to the appropriate party.

Where miscellaneous non-distribution services are provided to a customer that are not normally provided to all customers in the rate group, these miscellaneous non-distribution services may be billed to the customer based on the actual costs incurred.

### **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.*

#### **2.4.5.1 Payment Methods**

Customer bills may be paid:

- a) in person at any Canadian financial institutions;
- b) through automated banking machines, tele-banking or Internet bill payment services as offered through their financial institution;
- c) at Town of Oakville City Hall;
- d) by dropping off their payment in the depository at Oakville Hydro's office;
- e) by mail (see section 1.5 Contact Information for details) with the remittance portion of the bill; or
- f) by credit card via [www.oakvillehydro.com](http://www.oakvillehydro.com) or by calling 289-391-5256

All payments should be made in Canadian funds.

For those customers without significant collection activity (as outlined in Section 2.4.3.1 – Security Billing Deposits of these Conditions of Service), Oakville Hydro provides the following payment plans:

- a) Pre-Authorized Payment Plan (APP) - Oakville Hydro offers a pre-authorized payment plan where the billed amount is deducted from the customer's bank account and applied against their Oakville Hydro bill. This service may be initiated in writing or online by a customer at any point in time during the year and may be terminated upon request..

## **DISTRIBUTION ACTIVITIES (GENERAL)**

b) Equal Payment Plan (EPP) - An estimate of the Customer's annual consumption for the following year is divided into twelve equal monthly payment amounts. The equal monthly payment is deducted from the customer's bank account. Customers have a choice of two dates for automatic payments to be withdrawn – the 2nd or the 16th of the month. Accounts will be reconciled once a year. If the annual reconciliation shows that the customer is owed an amount the amount will be credited to the customer's account. If the amount is equal to or exceeding the customer's average monthly billing, the customer will be notified in writing of the credit and will have 10 days to request a refund cheque, otherwise the amount will be credited to the customer's account. Accounts are reviewed semi-annually, and in the event of a material change in a customer's electricity consumption, Oakville Hydro will adjust the amount of the equal billing amount in accordance with the Distribution System Code. Oakville Hydro

If the annual reconciliation shows that the customer owes an amount, Oakville Hydro will recover the balance over the following year's equal monthly payment plan.

Where a customer discontinues participation in the equal payment plan, a reconciliation of the customer's account will occur and any difference will be charged or credited on the customer's next billing.

### **2.4.5.2 Overdue Account Interest Charges**

Bills are rendered for energy related services provided to the Customer. Bills are payable in full by the due date identified on the bill whether a bill is based on a meter reading or an Oakville Hydro estimate. The minimum payment period (before overdue interest can be applied) is 16 days from the date the bill was issued. The date the bill was issued is determined to be three days after it was printed if sent by mail or on the date an email was sent. If the due date falls on a non-business day, it is extended to the next business day.

Oakville Hydro Electricity Distribution will apply the following rules for determining the date on which a payment is received:

- a) if paid by mail, three days prior to the date that the payment is received;
- b) if paid at a financial institution or electronically, on the date on which the payment is acknowledged or recorded by the customers' financial institution; or
- c) if paid by credit card, on the date and at the time that the charge is accepted by the financial institution.

## **DISTRIBUTION ACTIVITIES (GENERAL)**

Past the due date, interest is calculated daily based on monthly interest rate of 1.5% or 19.56% annually.

If a bill includes charges other than electricity charges, payments are applied first to the electricity charges and then if funds remaining, to the other charges.

Where a partial payment is made by the Customer on or before the due date, the interest charge will be applied only to the amount of the bill outstanding at the due date. In the event of partial payment by a Customer, payments will be allocated to the portions of the bill covering electricity costs.

Outstanding bills are subject to the collection process and may ultimately lead to the service being discontinued. When the service has been reconnected, an account reconnection fee will be charged. Also, as part of the collection process the Customer's deposit will be reviewed to determine if the deposit amount requires adjustment to reflect current conditions as outlined in Section 2.4.3 Deposits. Where the deposit amount requires adjustment, the deposit adjustment will be added to the outstanding amount. Service will be restored once satisfactory payment has been made. Discontinuance of service does not relieve the Customer, and/or the owner, where the premises are not occupied by the owner, of the liability for arrears.

Oakville Hydro shall not be liable for any damage on the Customer's premises resulting from such discontinuance of service. A reconnection charge will apply where the service has been disconnected due to non-payment.

There are a variety of additional charges that will apply to a Customer's account under a variety of conditions such as:

**N.S.F. Charge.** In addition to any bank charges levied, additional charges will be payable for the processing of cheques returned due to non-sufficient funds (N.S.F.). See Other Charges in Section 7 - Rates and Tariffs - of these Conditions of Service.

**Account Set Up Charge.** A change of occupancy charge will apply to all accounts taken over by a new Customer as outlined in Other Charges in Section 7 Rates and Tariffs - of these Conditions of Service.

**Collection Charge.** It is sometimes necessary for a Oakville Hydro employee to visit a Customer's premises to collect payment for an account. A charge for this service will apply as listed in Other Charges in Section 7 - Rates and Tariffs - of these Conditions of Service.



## 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.*

### 2.5.1 Billing Information

Communications with a Customer vary with the type of billing services provided:

- a) Under Distributor Consolidated Billing, Oakville Hydro shall address customer inquiries concerning distribution service, meter accuracy and bill calculation errors. Oakville Hydro will refer all inquiries pertaining to retailer pricing or contract terms to the relevant retailer. Inquiries as to usage, including how usage might be modified, may be addressed by either Oakville Hydro or referred to the Customer's retailer.
- b) Under Retailer Consolidated Billing, Oakville Hydro shall refer all billing inquiries to the Customer's retailer, including inquiries about distribution costs on the Customer's bill. Oakville Hydro shall address any customer inquiries about meter accuracy, distribution rates and safety and reliability. Inquiries as to usage, including how usage might be modified, may be addressed by either Oakville Hydro or referred to the Customer's retailer.
- c) Under Split Billing (when approved), Oakville Hydro shall address all customer inquiries concerning distribution service, meter accuracy, usage amounts and calculation errors pertaining to distribution services. Oakville Hydro shall refer all inquiries pertaining to retailer pricing, retailer services or contract terms to the Customer's retailer.

### 2.5.2 Historical Information to Designated Parties

Customers have the right upon request to have historical usage information, information about their meter configuration and payment information sent to their service address or to any designated retailer or third party.

Upon written request by the Customer, Oakville Hydro will provide to the Customer or one or more retailers, usage data, meter data and payment information.

Oakville Hydro shall provide data for no less than one calendar year's worth of information, unless the Customer has been connected to Oakville Hydro's

## **DISTRIBUTION ACTIVITIES (GENERAL)**

distribution system for less than one year. Oakville Hydro will honour requests once a year for historical data to Retailers and Customers, if not delivered electronically through the EBT system. Oakville Hydro, at its discretion, may charge a fee for any additional requests based on actual costs incurred. A request is considered delivery of data to a single address.

### **2.5.3 Historical Information to Third Parties**

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

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

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

### **2.5.4 Information from Embedded Distributors**

An embedded distributor that receives electricity from Oakville Hydro shall provide load forecasts or any other information related to the embedded distributor's system load to Oakville Hydro, as determined and required by Oakville 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.

## DISTRIBUTION ACTIVITIES (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/Farm Service

*Include all items that apply specifically to Residential/Residential Customers not covered under the General Section. Refer to Table 1 and Table 2 for Point of Demarcation, Standard Allowance and Connection Fees for Residential/Farm Services.*

#### 3.1.1 Definition of Class

##### 3.1.1.1 General

This section refers to the supply of electrical energy to detached and semi-detached residential buildings as well as farms as defined in the local zoning by-laws.

Where the residential dwelling comprises the entire electrical load of a farm, it is defined as a residential service.

**DISTRIBUTION ACTIVITIES  
(CUSTOMER CLASS SPECIFIC)**

Where electricity is provided to a combined residential and business (including agricultural usage) and the service does not provide for separate metering, the classification shall be at the discretion of Oakville Hydro and shall be based on such considerations as the estimated predominant consumption.

Section 3.1 applies to new services and upgrades. Further, it applies only to buildings that meet the following conditions:

- the building lies along a distribution line; and
- the building can be connected without an expansion or enhancement to the distribution system.

Customers who do not meet these requirements should refer to Section 2.1.2 Expansion/Enhancements-Offer to Connect.

Services to residential buildings that are bulk metered will be treated the same as General Service Class Customers and will be subject to the provisions of either Section 3.2 or 3.3 of these Conditions of Service, as applicable.

**Note:** For the purposes of connections under these Conditions of Service, subdivisions multi-units or townhouse-type developments are not considered as Residential. They will be treated as General Service Class developments and subject to the provisions of Section 3.3 of these Conditions of Service.

### **3.1.2 General/Technical Information**

#### **3.1.2.1 Service Entrance Requirements**

There shall be only one service to a building except for semi-detached buildings. For semi-detached buildings with required fire separation, there may be two services.

In circumstances where multiple services are installed to a single dwelling and one service is to be upgraded, the upgraded service will replace all existing services.

Oakville Hydro will credit the Customer the Basic Connection Fee, as indicated in Table 1. Also, as indicated in Table 1, a Variable Connection Charge will be levied where the connection is beyond the Standard Allowance.

Service entrance locations requiring access to adjacent properties (mutual drives, narrow side set-backs, etc.) will require the registration of an easement from the property owner(s) involved, in favour of Oakville Hydro

#### **Services Over Swimming Pools**

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

**DISTRIBUTION ACTIVITIES  
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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, Oakville 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.

**3.1.2.2 Underground Primary/Secondary Services**

The location of the supply point, primary and secondary cables, transformer, and metering will be established through consultation with Oakville Hydro for both new and upgraded services. Failure to comply may result in the relocation of the service at the owner's expense.

**Primary**

Customers requiring an electrical service greater than 400 amperes shall be treated the same as General Service in Section 3.2 or 3.3.

**Secondary**

Customers requesting a new or upgraded underground service will be required to pay 100% connection costs for the underground service less the Standard Allowance.

The trench route will be approved by Oakville Hydro and will be shown on the underground drawing supplied by Oakville Hydro. The Customer will be responsible for Oakville Hydro costs associated with re-design and inspection or repair services due to changes or deviations initiated by the Customer or its agents. In the event there are delays due to coordination and scheduling with the owner or the owner's contractor, there may be additional charges.

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

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

It is the responsibility of the owner or their contractor to contact Oakville Hydro to inspect each trench prior to the installation of Oakville Hydro's service cables.

The owner shall provide unimpeded access for Oakville Hydro to install and maintain the service.

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

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**3.1.2.3 Transformation**

Since transformers are owned and installed by Oakville Hydro, transformation is not applicable to this section.

**3.1.3 Early Consultation and Notification**

Well in advance of installation commencement, the Customer shall make a request for electrical service. Such request must provide adequate lead time to permit acquisition of major materials and the scheduling of the appropriate work crews. This shall apply for the installation of a new service and the upgrading of an existing service. At the time the request is made, the Customer shall submit the following:

- address (complete municipal address);
- name, address, telephone number, fax number and e-mail address of the Owner;
- previous address of the Owner;
- name, address, telephone number, fax number and e-mail address of the person to contact regarding the technical aspects of the service;
- required in service date;
- proposed service entrance capacity and voltage rating of the service entrance equipment;
- survey plan and site plan indicating the proposed location of the service entrance equipment with respect to rights-of-way and lot lines; and
- all information required for setting up a billing account.

**3.1.4 Point of Demarcation**

The Ownership Demarcation Point for a residential service is as follows:

- for existing Overhead services, it is the first point of attachment on private property. Normally this is the service mast at the house. However, it may also be another structure, such as a pole. The service mast, fittings and attachments to the house, are to be installed, owned and maintained by the customer.
- for Underground services , it is the line side of the meter base. The meter base, line side and load side down stack conduits, fittings and attachments to the house are installed, owned and maintained by the customer.
- Oakville Hydro also owns the electric meter.

The Operational Demarcation Point for a residential service is at the meter base.

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**3.1.5 Access**

The Customer will provide unimpeded and safe access to the Oakville Hydro at all times for the purpose of installing, removing inspecting, maintaining, reading, operating or changing metering and distribution equipment.

**3.1.6 Inspection**

All Customer-owned electrical equipment must be inspected and approved in accordance with Electrical Safety Authority requirements. Oakville Hydro requires the Customer to obtain connection authorization from the Electrical Safety Authority prior to energization by Oakville Hydro

**3.1.7 Metering**

Where revenue metering is located inside a residence, it will be relocated by the owner to the exterior of the building at the time of an electrical service upgrade.

Meters for new or upgraded residential services will be mounted outdoors on a meter socket approved by Oakville Hydro

If and when a fence is constructed to enclose the property, the meter is not to be enclosed within the fenced area.

Each dwelling of a semi-detached or duplex arrangement shall be separately metered.

A meter socket base must be installed outside on the line side of the main disconnect on all single phase services up to and including 400 amperes. All 400 ampere services are to have a 400 ampere self-shorting residential outdoor meter base with 400:5 current transformer accommodation. The meter and current transformers will be supplied by Oakville Hydro

- a) Meter sockets of an approved manufacturer shall be provided. The Customer should contact Oakville Hydro to confirm details.
- b) Clear unobstructed access must be maintained to and in front of the meter location.
- c) The approved meter base shall be mounted such that the midpoint of the meter is 1.7 m ( $\pm$  100 mm) above finished grade within 1 metre of the face of the building (in front of any existing or proposed fence), unless otherwise approved by Oakville Hydro

## **3.2 General Service (Below 50 kW)**

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

### **3.2.1 Definition of Class**

#### **3.2.1.1 General**

The rate classification is based on the average of the monthly billing demand for the preceding 12 months. For new Customers without prior billing history, the peak demand will be based on 90% of the proposed capacity or installed transformation.

Oakville Hydro will review each non-residential customer's rate classification at least once in each calendar year to determine whether the customer should be assigned to a different rate class.

A non-residential customer may request that Oakville Hydro review their rate classification once in any calendar year or at any time that the customer's demand falls outside of the upper or lower limits applicable to the customer's current rate classification for a period of 5 consecutive months.

Where a review of the customer's classification that was initiated by Oakville Hydro results in the assignment of the customer to a different rate classification, Oakville Hydro will provide written notice of the reclassification no less than one billing cycle before the reclassification takes place for billing purposes.

Section 3.2 applies to **new services and upgrades.**

This section refers to General Service Customers (Below 50 kW) that meet the following conditions:

- the building lies along a distribution line; and
- the building can be connected without an expansion or enhancement to the distribution system.

Customers who do not meet these requirements should refer to Section 2.1.2 Expansion/Enhancements-Offer to Connect.

The maximum allowed single phase service is 120/240 volt, 400 amperes. For three phase services, the customer shall maintain a balanced three phase load. Single phase step down transformers from 347/600 volt may be supplied and installed by the customer on his premises up to an individual capacity of 25% of total demand.

**Note:** Apartment buildings or multi-unit complexes and subdivisions are treated as General Service (Above 50 kW). See Section 3.3 General Service (Above 50 kW).



**DISTRIBUTION ACTIVITIES  
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**3.2.2 General/Technical Information**

**3.2.2.1 Service Entrance Requirements**

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

See Section 2.3.4.2 for standard voltages available from Oakville Hydro. The Customer shall obtain the prior approval from Oakville Hydro for the use of any specific voltage at any specific location.

Where practical there shall be only one Point of Entry to each land parcel. If Oakville Hydro is required to supply and install extra lines and equipment to allow more than one Point of Entry, then the extra lines and equipment will be included in the variable connection charge.

There shall be only one service to a building.

In circumstances where multiple services are installed to a General Service Customer and one service is to be upgraded, the upgraded service will replace all existing services.

It is the Customer's responsibility to ensure that all transformers, poles and conductors located on private property are kept clear of any obstructions in order to facilitate regular and emergency maintenance. Obstructions may include vegetation, structures and landscaping. Removal of any obstruction by Oakville Hydro will be at the expense of the Customer.

**3.2.2.2 Electrical Meter Room Requirements**

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.

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

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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 electrical room must be located to provide safe direct access from the outside so that it is readily accessible to Oakville Hydro's employees and agents at all hours to permit meter reading and to maintain electric supply. This room must be locked with a Best Universal Lock cylinder and core available from Stanley Canada Corporation., 2495 Meadow Pine Blvd, Mississauga, Ontario, L5N 6C3, telephone 289-290-7057. The lock shall be cored to Oakville Hydro's master key system as available from Stanley Canada Corporation. Outside doors providing access to electrical rooms must have at least 150 mm clearance between final grade and the bottom of the door.

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.

The owner shall identify each Customer'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.

**3.2.2.3 Underground Primary/Secondary Services**

The location of the supply point, primary and secondary cables, transformer, and metering will be established through consultation with Oakville Hydro for both new and upgraded services. Failure to comply may result in the relocation of the service at the owner's expense. If due to the size and/or nature of the property, more than one transformer is needed for electrical supply, a looped electrical system will be required. Two distinct supply points will be required and will be determined by Oakville Hydro. The duct bank, primary cabling and transformers for the looped supply will be located on the customer's property within an Oakville Hydro registered easement. For easement details see Section 2.1.6.

The Customer may construct or install all civil infrastructure on private property, that is deemed required by Oakville Hydro as part of its Connection Assets. All civil infrastructure is to be in accordance with Oakville Hydro's current standards, practices, specifications and these Conditions of Service and are subject to Oakville Hydro's inspection/acceptance.

Should the Customer complete the civil infrastructure related to connection assets, Oakville Hydro would not include the associated civil component in its calculation of Variable Connection Fees.

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Alternatively, the Customer may have Oakville Hydro complete the civil infrastructure that forms part of Oakville Hydro's Connection Assets on private property and the Customer will therefore be responsible for all costs via Variable Connection Fees. See Table 1 – General Service (0 – 50 kW).

**If the installation is not in accordance with Oakville Hydro's specifications, the installation will be removed and re-installed at the Customer's expense.**

The Customer is responsible to maintain all its structural and mechanical facilities on private property in a safe condition satisfactory to Oakville Hydro. This includes the transformer base and the grounding, but does not include the transformer if it is supplied by Oakville Hydro. This also includes underground cable duct banks and any cable racking required to support Oakville Hydro cables. When undertaking 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. For more information on your electricity supply and ownership demarcation points visit our website at [www.oakvillehydro.com](http://www.oakvillehydro.com).

The trench route design or any change to this design must be approved by Oakville Hydro. The Customer will be responsible for Oakville 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 Oakville Hydro) before digging.

It is the responsibility of the owner to contact Oakville Hydro to inspect each trench prior to Oakville Hydro installing the primary/secondary cables. Oakville Hydro will install the primary/secondary cables, splices, terminations and other associated equipment as part of the variable connection charge. Where the trench had not been inspected prior to backfilling, the Customer is responsible for all cost incurred in order to inspect the duct or cable.

**3.2.2.4 Transformation**

Oakville Hydro will provide and own transformation up to 2500 kVA. Unless noted otherwise, transformation will be on the Customer's property, and on foundations supplied by the Customer. Oakville Hydro will determine the size of the transformer that it will supply.

When the transformation is supplied by Oakville Hydro, it must be located within 3m (10 feet) of an accessible roadway/parking lot capable of carrying heavy trucks. This roadway/parking lot is to facilitate the installation, repair or replacement of the transformer by Oakville Hydro personnel. An access roadway, when required, will be installed and maintained by the Customer.

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Depending upon location, Oakville Hydro may require concrete filled steel bollards (bumper posts) in accordance with Oakville Hydro specifications.

**3.2.3 Early Consultation and Notification**

Well in advance of installation commencement, the Customer shall make a request for electrical service. Such request must provide adequate lead-time to permit acquisition of major materials and the scheduling of the appropriate work crews. This shall apply for the installation of a new service and the upgrading of an existing service. At the time the request is made, the Customer shall submit the following:

- address (complete municipal address);
- name, address, telephone number, fax number and e-mail address of the Owner;
- name, address, telephone number, fax number and e-mail address of the person to contact regarding the technical aspects of the service;
- required in service date;
- proposed Service Entrance equipment's Rated Capacity (Amperes) and Voltage rating and metering requirements;
- proposed 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 electrical energy;
- survey plan and electrical site plan drawn to scale, showing the following:
  - a) indicating the proposed location of the service entrance equipment with respect to public rights-of-way and lot lines;
  - b) location of metering equipment; and
  - c) indication of how Oakville Hydro will gain direct outside access to the meter(s);
- schematic drawing of the main secondary distribution system, showing the following:
  - a) voltage;
  - b) size, number, and material of the Service Entrance conductors;
  - c) main disconnect switch, including size in Amperes;
  - d) metering equipment; and
  - e) disconnect switches for each metered sub-feed;
- number and size of services to individual units;
- plan to scale showing the electrical room and provision for metering;
- grading and site plan showing building(s) in relation to existing and proposed property lines, other buildings, streets and driveways, and the location of other sources, gas, telephone and water;
- all information required to set up a billing account; and
- electrical, architectural and/or mechanical drawings as required by Oakville Hydro

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**3.2.4 Point of Demarcation**

The Ownership Demarcation Point is as follows:

- for existing overhead services, it is the first point of attachment on private property;
- for Customer installed underground services it is the transformer secondary terminals; and
- for Oakville Hydro underground services, it is the junction/pull box located on the Customer's premises.

The Operational Demarcation Point is as follows:

- for existing overhead services, it is the first point of attachment on private property;
- for underground services, it is at the meter base or the disconnect switch, whichever comes first. The disconnect switch must come first in most instances, with the exception being small single phase services up to 400 amperes.

**3.2.5 Access**

The Customer will provide unimpeded and safe access to the Oakville Hydro at all times for the purpose of installing, removing inspecting, maintaining, reading, operating or changing metering and distribution equipment.

**3.2.6 Inspection**

All Customer-owned electrical equipment must be inspected and approved in accordance with Electrical Safety Authority requirements. Oakville Hydro requires the Customer to obtain connection authorization from the Electrical Safety Authority prior to energization by Oakville Hydro

**3.2.7 Metering**

The Customer shall provide the following equipment in order to accommodate Oakville Hydro's meter installation:

- a) If the service is 120/240 V, 200 A, a 1-phase 4-jaw outdoor meter socket connected on the load side of the main disconnecting device; or
- b) If the service is 120/208 V, 200 A, a 3-phase 7-jaw indoor meter socket connected on the load side of the main disconnecting device; or
- c) If the service is 347/600 V, 100 A, a 3-phase 7-jaw indoor meter socket with an insulated neutral, and connected on the load side of the main disconnecting device.

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See Section 2.3.7 and Table 4 of these Conditions of Service for requirements.

**3.2.8 Deposit**

**3.2.8.1 Security Deposit Requirements**

Oakville Hydro waives its right to collect a security billing deposit from a customer requesting connection services where:

- a) a new customer provides a letter from another electricity or gas distributor in Canada confirming a GPH during the same period that a GPH would be calculated by Oakville Hydro, or
- b) a non-residential customer with a demand of greater than 50 kW provides a satisfactory credit check made at the customer's expense.

See Section 2.4.3 - Security Deposits - for additional security deposit requirements.

**3.2.8.2 Good Payment History (GPH)**

The time period for determining a GPH for a general service (below 50 kW) customer shall be based on five years of history from the date that Oakville Hydro is determining the GPH.

**3.2.8.3 Form of Security**

Where Oakville Hydro requires a security billing deposit, a new general service customer may provide a security billing deposit by paying either cash or cheque at his option.

Where Oakville Hydro requires a security billing deposit and the customer has a PPH, Oakville Hydro may require either cash, a certified cheque or an irrevocable letter of credit from a bank as defined in the Bank Act, 1991, c.46 at its option.

**3.2.8.4 Retention of Security Deposits**

The customer security billing deposit shall be refunded when:

- a) an account is terminated;
- b) a customer changes to retailer consolidated billing; or
- c) a customer achieves a GPH.

Any refund or adjustment for an excess amount held as a security billing deposit shall be refunded by application of a credit to the customer's account.

### **3.3 General Service (50 - 2500 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.*

#### **3.3.1 Definition of Class**

##### **3.3.1.1 General**

All non-residential Customers with an average peak demand between 50 kW and 2500 kW in the preceding rate year are to be classified as General Service Customers above 50 kW or General Service Customers above 1,000 kW depending upon the average peak demand. The rate classification is based on the average of the monthly billing for the preceding 12 months. For new Customers without prior billing history, the peak demand will be based on 90% of the proposed capacity or installed transformation.

Oakville Hydro will review each non-residential customer's rate classification at least once in each calendar year to determine whether the customer should be assigned to a different rate class.

A non-residential customer may request that Oakville Hydro review their rate classification once in any calendar year or at any time that the customer's demand falls outside of the upper or lower limits applicable to the customer's current rate classification for a period of five consecutive months.

Where a review of the customer's classification that was initiated by Oakville Hydro results in the assignment of the customer to a different rate classification, Oakville Hydro will provide written notice of the reclassification no less than one billing cycle before the reclassification takes place for billing purposes.

This section applies to **new services and upgrades**.

Section 3.3 refers to General Service Customers (Above 50 kW) that meet the following conditions:

- the building lies along a distribution line;
- the building can be connected without an expansion or enhancement to the distribution system.

Customers who do not meet these requirements should refer to Section 2.1.2 Expansions - Offer to Connect.

The maximum allowed single phase service is 120/240 volt, 400 amperes. For three phase services, the customer shall maintain a balanced three phase load. Single phase step down transformers from 347/600 volt may be supplied and

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installed by the customer on his premises up to an individual capacity of 25% of total demand.

**3.3.1.2 New Residential Subdivisions or Multi-Unit Developments**

New Residential Subdivisions or Multi-unit Developments are treated as Non-Residential Class Customers and involve capital contribution for “Expansion” work, in addition to any applicable Connection Charges. Should the Economic Evaluation (see Section 2.1.2.1 Capital Contribution to these Conditions of Service) identify a shortfall for the Expansion, the Customer has a choice of either completing the portion of plant not yet connected to Oakville Hydro’s system or having Oakville Hydro complete this work in accordance with Section 3.3 of the DSC, titled “Alternative Bids”. The Customer will not be allowed to perform construction work on Oakville Hydro’s existing distribution system.

All of the electrical service must be constructed to Oakville Hydro’s standards and in compliance with the Ontario Electrical Safety Code, applicable laws, regulations and codes.

The Developer is required to enter into a Development Agreement with Oakville Hydro and to pay Oakville Hydro the necessary deposit(s) or securities for ordering of equipment and associated design and construction work for the installation of the proposed underground electrical distribution system. This amount will be paid concurrently with the signing of the Development Agreement.

In case of conflict between the Development Agreement and the terms herein, the Development Agreement shall be binding. All design work, including service locations and trench routes, must be approved by Oakville Hydro

**3.3.2 General/Technical Information**

**3.3.2.1 Service Entrance Requirements**

For details see Section 3.2.2.1

**3.3.2.2 Electrical Meter Room Requirements**

For details see Section 3.2.2.2

**3.3.2.3 Underground Primary/Secondary Services**

For details see Section 3.2.2.3

**3.3.2.4 Transformation**

For details see Section 3.2.2.4



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**3.3.3 Early Consultation and Notification**

For details see Section 3.2.3.

In addition to the items set out in Section 3.2.3, the Customer shall submit three copies of any service entrance switchgear drawings to be installed for Oakville Hydro's approval, including interlocking arrangements if required.

**3.3.4 Point of Demarcation**

For details see Section 3.2.4.

**3.3.5 Access**

For details see Section 3.1.5.

**3.3.6 Inspection**

For details see Section 3.1.6.

**3.3.7 Metering**

**3.3.7.1 General**

The Customer shall provide the following equipment in order to accommodate Oakville Hydro's meter installation:

- a) for self contained metering up to 200 A –  
  
a self contained meter installation at low voltage where the rating of the Customer's main disconnecting device does not exceed 200 A shall be provided with:
  - 120/240 V, 200 A, 1-phase 4-jaw outdoor meter socket connected on the load side of the main disconnecting device; or
  - 120/208 V, 200 A, 1-phase 5-jaw indoor meter socket connected on the load side of the main disconnecting device; or
  - 120/208 V, 200 A, 3 –phase 7-jaw indoor meter socket connected on the load side of the main disconnecting device; or
  - 347/600 V, 200 A, 3-phase 7-jaw indoor meter socket with an insulated neutral jaw, and connected on the load side of the disconnecting device;

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b) for 120/240 V, 400 A –

a single-phase transformer-type meter installation at 120/240 V where the rating of the Customer's main disconnecting device ranges from greater than 200 A up to 400 A shall be provided with:

- all 400 A services are to have a self-shorting outdoor meter base with bar type current transformer accommodations. Oakville Hydro will supply the meter and current transformers;

c) for three-phase greater than 200 kW –

a transformer-type meter installation for a secondary service where the monthly peak demand during a calendar year is forecast by Oakville Hydro to exceed 200 kW is required to have an interval meter and shall provide:

- meter cabinet to be located in electrical room as per Section 3.2.2.2 of these Conditions of Service;
- meter cabinet and instrument transformer compartment specifications to be in accordance with Table 5 and 6 of Section 5 of these Conditions of Service;
- switchgear utility compartment in accordance with Table 5 of Section 5 and Section 2.3.7.2 of these Conditions of Service;
- 31 mm conduit from the instrument transformer enclosure to the meter enclosure;
- provisions for interval metering will be made as per Section 2.3.7.3

d) Meter cabinets to be equipped with rectangular polycarbonate window kit c/w oil resistant gasket. Minimum dimensions 24cm (L) x 12 cm (H). Top of window kit to be positioned 10 cm from top of cabinet in middle of right hand door.

In addition, see Section 2.3.7 and Tables 4, 5, 6, and 7, of these Conditions of Service for requirements.

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**3.3.8 Deposit**

**3.3.8.1 Security Deposit Requirements**

Where a customer has a credit rating from a recognized credit rating agency, the maximum amount of the security billing deposit required will be reduced in accordance with the following table:

Credit Rating <i>(using Standard and Poor's Rating Terminology)</i>	Allowable Reduction In Security Billing Deposit
AAA- and above or equivalent	100%
AA-, AA, AA+ or equivalent	95%
A-, from A, A+ to below AA or equivalent	85%
BBB-, from BBB, BBB+ to below A or equivalent	75%
Below BBB- or equivalent	0%

See Section 2.4.3 Security Deposits for additional security deposit requirements.

**3.3.8.2 Good Payment History (GPH)**

The time period for determining a GPH for a general service customer with demand greater than 50 kW shall be based on seven years history from the date that Oakville Hydro is determining the GPH.

**3.3.8.3 Retention of Security Deposits**

General Service (Above 50 kW) security deposits will be refunded by application of a credit to the account upon termination of service or if the Customer switches to retailer consolidated billing or customer achieves a GPH.

## **3.4 General Service (Above 2500 kW)**

*Include all items that apply specifically to General Service Customers (above 2500 kW) not covered under the General section. Describe the criteria to determine how a Customer is classified as being above 2500 kW.*

### **3.4.1 Definition of Class**

#### **3.4.1.1 General**

All non-residential Customers with an average peak demand above 2500 kW in the preceding rate year are to be classified as General Service Customers above 1,000 kW. The rate classification is based on the average of the monthly billing demand for the preceding 12 months. For new Customers without prior billing history, the peak demand will be based on 90% of the proposed capacity or installed transformation.

Oakville Hydro will review each non-residential customer's rate classification at least once in each calendar year to determine whether the customer should be assigned to a different rate class.

A non-residential customer may request that Oakville Hydro review their rate classification once in any calendar year or at any time that the customer's demand falls outside of the upper or lower limits applicable to the customer's current rate classification for a period of five consecutive months.

Where a review of the customer's classification that was initiated by Oakville Hydro results in the assignment of the customer to a different rate classification, Oakville Hydro will provide written notice of the reclassification no less than one billing cycle before the reclassification takes place for billing purposes.

This section applies **to new services and upgrades**.

This Section refers to General Service Customers (Above 2500 kW) that meet the following conditions:

- the building lies along a distribution line;
- the building can be connected without an expansion or enhancement to the distribution system.

Customers who do not meet these requirements should refer to Section 2.1.2 Expansion/Enhancements-Offer to Connect.

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**3.4.2 General/Technical Information**

**3.4.2.1 Service Entrance 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 Oakville Hydro's requirements for high voltage installations. Oakville Hydro will provide system requirement details upon application for service.

Customer owned substations include transformers and switchgear located in a suitable room or enclosure, owned and maintained by the Customer, and supplied at primary voltage of 27.6/16 kV.

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

It is recommended that Customers' transformers have voltage taps in their primary windings as shown in Table 3 appended to these Conditions. Transformers other than listed in Table 3 may be suitable but shall not be connected without the specific written approval of Oakville Hydro

Customer owned substations, prior to energization, must be inspected by both the Electrical Safety Authority and Oakville Hydro

The Customer and Oakville Hydro shall inspect their own respective substations in accordance with the Distribution System Code. The minimum inspection cycles for Customer specific substations are one year for open substations and three years for enclosed substations. To facilitate and encourage the maintenance of this equipment, Oakville Hydro will provide one power interruption annually, at no charge, in lieu of or coincident to interruptions arranged for the installation, maintenance, and testing of vault fire alarm detectors. This no-charge service will be scheduled during Oakville Hydro's normal business hours, Monday to Friday, but the time cannot necessarily be guaranteed. Oakville Hydro may charge Customers for power interruptions arranged at times other than as outlined above.

**3.4.2.2 Electrical Meter Room Requirements**

For details see Section 3.2.2.2

**3.4.2.3 Underground Primary/Secondary Service**

Not applicable.

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**3.4.2.4 Transformation**

A General Service (Above 2500 kW) Customer shall provide, own and be responsible for transformation facilities from high voltage to low voltage at the Customer's premises and, as such, shall construct, maintain and operate said transformation facilities in accordance with the requirements of the Ontario Electrical Safety Code.

Customer-owned transformers connected to Oakville Hydro's distribution system shall be built in accordance with CAN/CSA Standard C802, Maximum Losses for Distribution, Power and Dry Type Transformers. Impedances that exceed the values specified in the standard are not acceptable. For transformers larger than 3000 kVA, total losses that exceed 0.8% of the kVA rating of the transformer are not acceptable.

**3.4.3 Early Consultation and Notification**

For details see Section 3.3.3.

In addition to the items set out in Section 3.3.3 and the Sections referred to therein, the Customer shall submit the following:

- all details of the transformer, including kVA capacity rating, short circuit rating, primary and secondary voltages, impedance and cooling details;
- a site plan of the transformer station showing the equipment layout, proposed connections, grounding, and fence details, where applicable; and
- a co-ordination study for protection review.

**3.4.4 Point of Demarcation**

The Ownership Demarcation Point, in this section, is as follows:

- the first point of attachment to Oakville Hydro's distribution system for both overhead and underground up to and including the high voltage clamps.

The Operational Demarcation Point for a general service Customer, in this section, may be at the live line loop or switch as applicable.

**3.4.5 Access**

See Section 3.1.5.

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**3.4.6 Inspection**

See Section 3.1.6.

**3.4.7 Metering**

The Customer shall provide the following equipment in order to accommodate Oakville Hydro's meter installation:

- provision for instrument transformers as per Table 6 of Section 5 of these Conditions of Service;
- meter cabinet, weatherproof if located in an outside installation, as per Table 5 of Section 5 of these Conditions of Service;
- 31 mm conduit from the instrument transformers to the meter enclosure;
- 120 volt, 15 amp fused auxiliary power supply to be supplied to the inside of the metering cabinet with one (1) GFI duplex receptacle;
- in addition, service registration as a wholesale meter point must meet IESO requirements;
- in addition, see Section 2.3.7 and Table 4, 5, 6, and 7 of these Conditions of Service for requirements.

If primary (above 750V) metering is required, Oakville Hydro will supply, install, own and maintain all meters, ancillary devices, and secondary wiring required for revenue metering. Oakville Hydro will install, own and maintain the instrument transformers. Instrument transformers required for primary metering will be specified and purchased by Oakville Hydro at the expense of the customer, as part of the variable connection charge.

**3.4.8 Deposit**

**3.4.8.1 Security Deposit Requirements**

Where a customer has a credit rating from a recognized credit rating agency, the maximum amount of the security billing deposit required will be reduced in accordance with the following table:

Credit Rating <i>(using Standard and Poor's Rating Terminology)</i>	Allowable Reduction In Security Billing Deposit
AAA- and above or equivalent	100%
AA-, AA, AA+ or equivalent	95%
A-, from A, A+ to below AA or equivalent	85%
BBB-, from BBB, BBB+ to below A or equivalent	75%

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Below BBB- or equivalent 0%

See Section 2.4.3 Security Deposits for additional security deposit requirements.

**3.4.8.2 Good Payment History (GPH)**

The time period for determining a GPH for a general service (above 2500 kW) customer shall be based on seven years history from the date that Oakville Hydro is determining the GPH.

Where a customer with a demand greater than 5,000 kW achieves a GPH, Oakville Hydro shall refund 50% of the security billing deposit.

Where a customer with a demand greater than 1,000 kW and less than 5,000 kW achieves a GPH, Oakville Hydro shall refund 100% of the security billing deposit.

**3.4.8.3 Retention of Security Deposits**

Where a customer with a demand in excess of 5,000 kW achieves a GPH, Oakville Hydro shall refund 50% of the security billing deposit.

General Service (Above 2500 kW) security deposits will be refunded by application of a credit to the account upon termination of service or if the customer switches to retailer consolidated billing.



## 3.5 Embedded Generation

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

This section outlines the typical technical requirements and procedural activities required of a prospective embedded generator of 10 MVA or less to connect to the Oakville Hydro electrical distribution system to ensure safe and reliable distribution system operations. Generation facilities of 10 MVA or higher will be reviewed on a case-by-case basis, as these will require a greater degree of difficulty for connection, and significantly higher costs. This section also ensures that Oakville Hydro and the embedded generator comply with the requirements of the Ontario Energy Board Distribution System Code, Section 6.2, the Oakville Hydro Conditions of Service, and the Ontario Electrical Safety Code, Section 84. The Distribution System Code is available on the OEB website at [www.ontarioenergyboard.ca](http://www.ontarioenergyboard.ca). Further, the embedded generator may need to meet the requirements of the IESO and Hydro One.

This section focuses on the protection required to detect and isolate the generator from the Oakville Hydro distribution system when faults/disturbances occur on the distribution system, to protect the Oakville Hydro system and other Customers on the distribution system. The embedded generator should consider these typical protection requirements when preparing the proposed protection package for Oakville Hydro review; however, **this guide is not intended to take the place of a detailed final design**. A detailed final design should be completed by a competent person or organization, and should include consideration of proposed power and protective equipment, and local conditions, including existing and future equipment loading and operating conditions.

Although these conditions are meant for all embedded generation, they are more applicable to larger (10kW to 10MW) and more sophisticated generators. MicroFIT generators (under 10kW) will follow a simpler and less intensive connection process in accordance with the DSC. For connection purposes, MicroFIT generators will be connected in accordance with this section, the DSC and Oakville Hydro's procedures for connecting embedded generation. A standard connection fee will apply. For tariff and rate purposes, MicroFIT generators will be classified in the MicroFIT generator rate class as determined by the OEB.

### 3.5.1 Introduction

Customers of Oakville Hydro may choose to supply some or all of their electrical energy needs through the installation of an on-site, Customer-owned generation facility. Oakville Hydro will provide non-discriminatory access to its distribution system for a generator, and will make every effort to respond promptly to a generator's request for connection. For the purposes of this document, a generator

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that requests connection to the Oakville Hydro distribution system will be referred to as an “embedded generator”.

The connection and operation of a Customer’s embedded generator must not endanger workers, jeopardize public safety, or adversely affect or compromise equipment owned or operated by Oakville Hydro. Further, the security, reliability, efficiency and the quality of electrical supply to other Customers connected to Oakville Hydro’s distribution system must not be affected. If damage or increased operating costs result from a connection with a generator, Oakville Hydro shall be reimbursed for these costs by the generator.

The embedded generator shall be disconnected from Oakville Hydro’s distribution system when:

- a) a remote trip or transfer trip is included in the interface protection; and
- b) the generator effects changes in the normal feeder arrangements other than those agreed upon in the operating agreement between Oakville Hydro and the Customer.
- c) Oakville Hydro needs to repair, maintain or operate in the vicinity of and on the feeder the embedded generator is connected to.

### **3.5.2 Oakville Hydro Distribution System**

Hydro One owns the high-voltage transmission system and transformation facility that supplies power to Oakville Hydro at the 27.6/16 kV level which, in turn, Oakville Hydro distributes to various Customers throughout their electrical distribution system. Because of this arrangement, an embedded generator must also comply with Hydro One requirements for connection, as an embedded generator could have a serious impact on the Hydro One system under fault conditions.

It is assumed that the embedded generating facility will be designed, constructed, owned and operated by a party independent of Oakville Hydro. All embedded generator interconnection arrangements must be acceptable to and approved by Oakville Hydro and, for some specific relay protection areas, by Hydro One.

An embedded generator facility that includes a generation unit rated at 10 MVA or higher, or whose embedded generation facility is comprised of generation units whose net output is greater than 50 MVA, will require approval of the Independent Electricity System Operator (IESO). Such a facility must meet the applicable IESO performance standards identified in Chapter 4 of the “Market Rules for the Ontario Electricity Market”. These rules are available on the IESO website at [www.IESO.CA](http://www.IESO.CA).

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**3.5.3 Oakville Hydro Utility Practices**

The major elements of a utility connection for an embedded generation facility include a circuit breaker for fault current interruption, a transformer for matching the generator and utility system voltages, and a connecting line to the utility facilities. Control, metering and protective relaying facilities are also necessary for both the embedded generator and Oakville Hydro operations. Oakville Hydro will have operating control of the circuit breaker at the interface between the embedded generator and the Oakville Hydro distribution system

Protection systems are required at the generation facility, and these protection systems must be capable of automatically isolating the embedded generator from the Oakville Hydro system. The embedded generator should provide protection systems to cover the following conditions:

- internal faults (i.e., faults within the embedded generator);
- external faults (i.e., faults on the Oakville Hydro system to which the embedded generator is connected);
- certain abnormal system conditions that could result in embedded generator islanding (e.g., conditions where the embedded generator becomes separated from the Oakville Hydro system, along with some load); and
- additional protection features, such as Remote Trip or Voltage Supervision, may be required in some applications.

The purpose of the connection and protection requirements outlined in this guide is to:

- consider the health and safety of the general public and of Oakville Hydro employees in the performance of their duties;
- preserve the security and reliability of the Oakville Hydro and Hydro One distribution systems;
- preserve acceptable quality of the electrical supply to other Oakville Hydro Customers; and
- ensure operating flexibility during normal or emergency conditions.

Once a prospective embedded generator decides to proceed with the installation of a generation facility, they will be responsible to reimburse the cost reasonably incurred by Oakville Hydro in making an offer to connect a generator. See Section 2.1.2 Expansions – Offer to Connect of these Conditions of Service.

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Costs that could be reasonably incurred by Oakville Hydro include costs associated with:

- preliminary review for connection requirements;
- detailed study to determine connection requirements; and
- final proposal to connect the generator.

This guideline is prepared for one embedded generator on an Oakville Hydro distribution feeder. If there is a second embedded generator to be connected to the same feeder, then total generation versus maximum feeder load must be considered, and the protection package must be designed accordingly. If additional equipment protection is required for the embedded generator already connected to the feeder, the second embedded generator may be responsible for the modification costs.

An embedded generator will be required to comply with all of Section 5.2 of the DSC in regards to metering requirements for a generating facility. For an OEB-Licensed generator connected to the Oakville Hydro system that sells energy and settles through the Oakville Hydro settlement process, the embedded generator must install a four-quadrant interval meter. Oakville Hydro will meter Customers with generation that does not require an OEB Licence, such as back-up capability or generation for load displacement, in the same manner as other Oakville Hydro load Customers.

An embedded generator that wishes to become connected to the Oakville Hydro distribution system must enter into a Connection Agreement with Oakville Hydro. This Connection Agreement shall contain specific terms and conditions relating to the connection, operations, maintenance and communications requirements of the generator and Oakville Hydro.

**3.5.4 Embedded Generator Interconnection Requirements and Procedure**

As connection costs are to be paid by the generating facility, most applicants will want to determine the point of connection and expected costs prior to committing to the project. This information can only be provided after a preliminary review is conducted by Oakville Hydro and Hydro One.

The preliminary review includes a verification of the voltage and power ratings of the embedded generator installation to confirm whether they are compatible with those of the distribution system. The impact of the proposed connection on reliability, power quality and equipment and personnel safety will also be assessed. Once the preliminary review is completed, and should the embedded generator installation be pursued further, more detailed analysis, specifications and information will need to be provided by the embedded generator.

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Listed below are the recommended steps involved in proceeding to have an embedded generator connect to the Oakville Hydro electrical distribution system

**3.5.4.1 Initial Contact and Embedded Generator Interconnection Application**

1. Contact Oakville Hydro to identify an interest in connecting a generator to the Oakville Hydro electrical distribution system, and obtain a copy of the Oakville Hydro Conditions of Service.
2. Provide Oakville Hydro with a written request for connection, including the preliminary technical information (two copies) describing the proposed embedded generator facility. As a minimum, this would include the following information pertaining to the connection:
  - site location with a scaled map referencing the site relative to existing lot lines, easements, road allowances and power lines, that identifies the facility location;
  - a brief description of the proposed plant design and operating characteristics, including expected monthly peak power and net energy production for each month of the year. If the embedded generator intends to purchase power from Oakville Hydro to supplement its embedded generator production to meet its total plant load, a monthly estimate of this expected purchase should also be provided;
  - short and long-term site development plans and installation schedule, and the preferred point of connection to the Oakville Hydro system;
  - preliminary single-line diagram showing generator(s), transformer(s), grounding arrangements and main isolating devices;
  - type and rating of main isolating device, generator(s) and transformer(s), and nameplate data if available;
  - proposed preliminary relay protection schemes; and
  - proposed revenue-metering equipment (i.e., 4-quadrant interval metering).
3. Once Oakville Hydro has received the required information to begin an analysis, Oakville Hydro will proceed with a preliminary review of the embedded generator connection requirements.

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**3.5.4.2 Preliminary Review for Connection Requirements**

1. The applicant will be responsible to reimburse Oakville Hydro for all reasonable costs incurred in completing the preliminary review.
2. Oakville Hydro will review the preliminary information and its associated documents and, if insufficient information has been provided, Oakville Hydro will advise the embedded generator of its requirements, and will put on hold its review until all sufficient data is provided. In general, the preliminary review will be conducted as follows:
  - determine the acceptability of the location and voltage level of connection to the Oakville Hydro system;
  - determine the embedded generator plant capacity limitations for the proposed connection;
  - confirm that the voltage and power ratings of the embedded generator installation are compatible with those of the Oakville Hydro distribution feeder. Where a mismatch between distribution line and embedded generator capacity ratings is revealed, the feeder may require reconductoring or upgrading. To determine this compatibility the following checks will be completed: feeder current rating; surge impedance loading; voltage regulation; reliability; power quality; and safety considerations;
  - depending on the total generation to be connected to the Oakville Hydro feeder, and the minimum feeder load, remote trip protection facilities between the transformer station (Hydro One supply) and the embedded generator may be required. Oakville Hydro and Hydro One will determine if this requirement is necessary.
  - the size of the generator and the embedded generator transformer configuration will determine the feeder protection modifications and requirements at the Hydro One supply station. This information will also help to determine any specific connection and equipment requirements, (e.g., requirement for a remote trip protection scheme).
3. Consult with Hydro One on any possible relay protection modifications or additions.
4. Oakville Hydro will provide the applicant with a written response to the preliminary review for connection request within 30 calendar days of starting the review. Oakville Hydro will also provide a preliminary cost estimate to the applicant for connecting the generator to the distribution

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system. A more detailed estimate can only be provided after a detailed connection review is completed.

5. If the prospective embedded generator finds the preliminary review acceptable, it must confirm acceptance in writing to Oakville Hydro, and request that Oakville Hydro proceed with a detailed review. The prospective embedded generator must commit to reimburse Oakville Hydro all reasonable costs incurred in completing the detailed review.

**3.5.4.3 Detailed Study to Determine Connection Requirements**

The complete detailed engineering package, including relay settings, must be submitted to Oakville Hydro before the detailed review can proceed. Oakville Hydro will provide the embedded generator with an offer to connect within 60 calendar days of starting the detailed review, unless other necessary information outside of Oakville Hydro control is required before an offer can be made.

1. The embedded generator must provide Oakville Hydro with detailed technical information (two copies) describing the proposed embedded generator facility. As a minimum, this would include the following information pertaining to the connection:
  - project construction and commissioning schedule;
  - site details, including power line to be constructed, transformer location, isolating switch location and connection location relative to the Oakville Hydro feeder circuit;
  - final single-line diagrams showing voltage levels, transformer connections, isolating devices, safety interlocks, fusing and metering (statistical and revenue metering);
  - nameplate data for protective relays (provide descriptive bulletins), load interrupter switch, generator(s) (include auto/manual synchronization scheme), transformers, breakers and station service;
  - generator specifications, including:
    - a) inertial constant in kWsec/kVA
    - b) maximum MVAR limit
    - c) neutral ground resistance in Ohms
    - d) short-circuit unsaturated reactance in per-unit on the generator's MVA and kV base

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- e)  $X_d$  - Synchronous reactance in p.u.
  - f)  $X'_d$  - Direct axis transient reaction in p.u.
  - g)  $X''_d$  - Direct axis sub-transient reactance in p.u.
  - h)  $X_2$  - Negative sequence reactance in p.u.
  - i)  $X_0$  - Zero sequence reactance to p.u.
- power transformer positive and zero sequence impedances in per-unit on the transformer rating base as measured between each pair of windings:
    - a)  $R_1$
    - b)  $X_1$
    - c)  $R_0$
    - d)  $X_0$
  - large motor specifications, in order to calculate voltage drops due to motor starting:
    - a) motor type (synchronous, induction, etc.)
    - b) rating in HP or kW
    - c) transient reactance in p.u.
    - d) sub-transient reactance in p.u.
  - relaying single-line diagram showing complete protective relaying and tripping schemes;
  - provide settings for the various protective-relaying schemes;
  - AC and DC elementary drawings for control and protection;
  - short-circuit (fault) calculations and voltage drop study (including all appropriate reactances for the generator(s) and transformer(s), relay settings, fuse selection and coordination study of the protection scheme). Short-circuit calculations will be based on IEEE Standard #ANS/IEEE C37.04;
  - electrical equipment layout;



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- station ground design and ground potential rise study; and
  - phasing diagram showing all transformer connections.
2. Oakville Hydro, in association with Hydro One Networks Inc. (“Hydro One”), will review the detailed electrical package and determine the acceptability of the interface design as it affects the Oakville Hydro and Hydro One systems, and provide written comments to the embedded generator.
  3. It is recommended that the embedded generator not begin procurement of electrical equipment until Oakville Hydro, the Electrical Safety Authority and Hydro One have provided, in writing, the acceptability of the embedded generator interface design.
  4. Once the embedded generator agrees to proceed with the construction of the generating facility, the embedded generator must enter into various agreements with Oakville Hydro

Note: Oakville Hydro will not provide any consulting services to an embedded generator, but only evaluate proposed generating facilities as to how it may impact on the Oakville Hydro distribution system.

**3.5.4.4 Agreements**

Before a generator installation begins operation, the prospective embedded generator applicant must enter into various agreements with Oakville Hydro. These agreements must clearly define the obligations and privileges of each party that need to be executed between the embedded generator owner and Oakville Hydro. The embedded generator may be required to enter into all or some of the following agreements:

- **Construction Agreement:** This agreement between the embedded generator and Oakville Hydro will detail the connection requirements and cost recovery terms. This agreement will include a provision that the embedded generator reimburse Oakville Hydro for any and all costs associated with expansions and/or enhancements of the Oakville Hydro distribution system and/or the Hydro One transmission system which may be necessary in order to accommodate the operation of the embedded generator.
- **Construction Agreement (Hydro One):** In the event that the Hydro One transmission or distribution system requires modifications to connect the embedded generator, this agreement will describe the obligations of Oakville Hydro and Hydro One to complete the connection and cost recovery terms.

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- **Customer Account Contract:** In the event that the embedded generator is also a load customer of Oakville Hydro, this contract describes the terms and applicable rates for firm power and backup power, and conditions under which backup power is granted and revoked.
- **Connection Agreement:** This is a technical document which identifies: common language and procedures to be used for normal and emergency situations; installed protection equipment; ownership and operating control of equipment; expected levels of maintenance and testing by both parties; contact names and telephone numbers; definitions; and all necessary schematic diagrams for proper communication between Oakville Hydro and the embedded generator.

An embedded generator shall enter into a Connection Agreement in a form acceptable to Oakville Hydro. Until such time as the embedded generator executes such a Connection Agreement with Oakville Hydro, the embedded generator shall be deemed to have accepted and agreed to be bound by these Conditions of Service and any operational schedules delivered to it from time to time by Oakville Hydro.

- **Operations Agreement** (if required): This agreement between Hydro One and Oakville Hydro will include provisions for safe and effective operation in the presence of the embedded generator's equipment connected to the Oakville Hydro system. This agreement may only be required if the embedded generator affects other parties connected to the Oakville Hydro distribution system.

**3.5.4.5 Commissioning**

Prior to the embedded generator facility being connected to the Oakville Hydro electrical distribution system, Oakville Hydro Engineering staff, or their delegate, will review and witness the embedded generator's commissioning tests to the extent that is necessary to ensure acceptable security to the Oakville Hydro and Hydro One distribution systems.

**3.5.5 General Responsibilities**

**3.5.5.1 Embedded Generator Responsibilities**

- Design the generating facility electrical and protection package to meet the Oakville Hydro, Hydro One and DSC connection requirements and Electrical Safety Authority inspection requirements. For Electrical Inspection requirements, refer to the Electrical Safety Authority Code, Section 84, and Electrical Inspection Department Bulletin #84-1-1, or the most recent version.

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- Ensure that the generating facility produces no objectionable harmonics or voltage flicker on the Oakville Hydro system. If objectionable harmonics or voltage flicker do occur, the embedded generator will be responsible to modify the generating facility to correct the problem.
- The Oakville Hydro system is operated within CSA Standard C235, entitled "Preferred Voltage Levels for AC Systems, 0 - 50,000 Volts", which recommends voltage variation limits on customer circuits. Any embedded generator interconnected with the Oakville Hydro supply system must not cause voltages, as measured at Customer Service Entrances, to deviate more than the amounts indicated in the CSA Standard.
- The output of an embedded generator, when connected in parallel with the Oakville Hydro supply system, must not adversely affect the voltage, frequency or wave shape of the Oakville Hydro electrical distribution system.
- If a remote trip protection scheme and/or a voltage supervision scheme is utilized, Hydro One will be required to modify equipment at Hydro One-owned transformer stations and, therefore, the embedded generator will be responsible to cover reasonable costs incurred.
- If a remote trip protection scheme is required, the embedded generator must arrange for and pay the leased circuit costs on data communications circuits.
- The embedded generator must provide telephone communications inside the generating facility to allow for communication with Oakville Hydro staff.
- Oakville Hydro may require the installation of a "Remote Terminal Unit" (RTU), which will provide data input to the Oakville Hydro Supervisory Control Assisted Data Acquisition (SCADA) system. Oakville Hydro will require the embedded generator to allow for space in their substation for the RTU, and provide an AC supply circuit for the unit. Oakville Hydro will arrange for a data communications circuit for the SCADA unit, and pay the monthly charges for this leased circuit.
- The embedded generator connected to the Oakville Hydro system must install its own meter in accordance with Oakville Hydro metering requirements, and provide Oakville Hydro with the technical details of the metering installation.
- The embedded generator metering must be installed at the point of supply. If it is not practical to install the meter at the point of supply,

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Oakville Hydro will apply loss factors to the generation output in accordance with the loss factors applied for retail metering settlement.

- An embedded generator's substation must include space for a metering compartment for the installation of instrument transformers and other devices for revenue metering.
- For an embedded generator that is connected at a load customer's facility, whether connected in series or in parallel with the load customer's service, the metering and disconnect switch has to be accessible to Oakville Hydro. In a residential case this means in close proximity to the outdoor residential load meter. For a non-residential application this means in the electrical room (in accordance with Oakville Hydro's conditions of service), in close proximity to the load metering and main disconnect switch.
- It will be the responsibility of the embedded generator to forward a detailed electrical package to the Electrical Safety Authority for their review of the proposed generation facility.
- It will be the responsibility of the embedded generator to obtain all appropriate permits for the construction and operation of the generation facility (e.g., Electrical Safety Authority approvals, generator Licences, municipal construction permits, etc.).
- The embedded generator must advise Oakville Hydro of the timetable for commissioning tests of the generator(s) in order that Oakville Hydro or its delegate may review and witness the tests.

**3.5.5.2 Oakville Hydro Responsibilities**

- Oakville Hydro must identify and explain the Oakville Hydro's cost recovery policy to the prospective embedded generator.
- Oakville Hydro must review the embedded generator's electrical design package and determine if it meets the minimum requirements to permit connection to the Oakville Hydro system.
- Oakville Hydro must design and modify, as required, Oakville Hydro's facilities to incorporate the embedded generator.
- Oakville Hydro must discuss and review with Hydro One any relay protection modifications that may be required on Oakville Hydro's supply feeder(s).
- Oakville Hydro Engineering Department will be responsible to coordinate the parallel connection between the embedded generator and the Oakville Hydro electrical distribution system.

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- Oakville Hydro will initiate the preparation of agreements between the embedded generator and Oakville Hydro
- As required by the Market Rules for the Ontario Electricity Market, Oakville Hydro will notify the IESO of the generation connection.

**Note:** Oakville Hydro will not provide any consulting services to an embedded generator, but only evaluate proposed generation facilities to assess impact on the Oakville Hydro distribution system.

**3.5.6 Important Technical Requirements for Connection**

The embedded generator's electrical and protection package shall provide the following:

- a three-phase, gang-operated, visible load break switch, with provision for padlocking at the point of connection to the Oakville Hydro system, and which must be accessible to Oakville Hydro staff. Oakville Hydro will have operating control of this isolating point;
- a fault interrupting/synchronizing device with suitable rating for each generator;
- automatic tripping of the generator(s) for all faults on the embedded generator side of the connection point;
- automatic tripping of the generator(s) for phase and ground faults on the Oakville Hydro electrical distribution system;
- an appropriate transformer connection between the embedded generator and the Oakville Hydro electrical distribution system (Oakville Hydro operates a three-phase four-wire system) which can be either a:
  1. High Voltage wye-grounded and a Low Voltage delta;
  2. High Voltage delta and a Low Voltage wye-grounded; or
  3. High Voltage wye-grounded and a Low Voltage wye-grounded.

The preferred transformer connections for generator units above 2 MW is a High Voltage wye-grounded or a Low Voltage delta.

- suitable transformer protection;
- install protective relays to prevent the embedded generator from delivering power to the Oakville Hydro feeder line when that line has become isolated or islanded from the rest of the Oakville Hydro system.

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(This will usually include over/under frequency relays and over/under voltage relays);

- for embedded generator load displacement projects with no power purchase by Oakville Hydro, “Reverse Power Protection” will be required;
- normal reclosing time of the Oakville Hydro supply station feeder breaker could be from 0.4 to 2.0 seconds. Short time delay for reclosing (i.e., < 1.0 second) will increase the risk of generator damage, and may emphasize the need for a remote trip protection and voltage supervision scheme, since the embedded generator islanding protection may be too slow;
- remote trip may be required between the embedded generator and the feeder circuit breaker because the embedded generator is connected at a critical location on the distribution system. This feature will provide for isolation of the embedded generator when certain faults or system disturbances are detected at the feeder circuit breaker location;
- synchronizing facilities for each synchronous generator;
- a ground potential rise study to satisfy Oakville Hydro and the Electrical Safety Authority for step/touch potential and to satisfy the Communications Company for incoming voice-data circuit/personnel protection;
- the communication requirements for the Oakville Hydro metering equipment and possible remote trip circuit must be confirmed with Oakville Hydro before installation; and
- for induction generators, ensure that the power factor is greater than 0.9. This may require the installation of automatically disconnecting capacitors. embedded generators with synchronous generators will be required to operate as near to unity power factor as possible.

**Note:** Oakville Hydro continually strives to provide the most up-to-date information to our Customers. Therefore, we reserve the right to amend this guideline and its requirements at any time upon the sole discretion of Oakville Hydro

### **3.6 Embedded 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.*

Under the “Market Rules for the Ontario Electricity Market”, Chapter 2, section 1.2.1, “No persons shall participate in the IESO administered markets or cause or permit electricity to be conveyed into, through or out of IESO controlled grid unless that person has been authorized by the IESO to do so”.

All embedded market participants, within the service jurisdiction of Oakville Hydro, once approved by the IESO are required to inform Oakville Hydro of their approved status in writing, 30 days prior to their participation in the Ontario electricity market.

All embedded market participants are responsible for all Oakville Hydro charges as approved by the Ontario Energy Board.

An embedded market participant shall enter into a Connection Agreement in a form acceptable to Oakville Hydro Until such time as the embedded market participant executes such a Connection Agreement with Oakville Hydro, the embedded market participant shall be deemed to have accepted and agreed to be bound by these Conditions of Service, and the terms of any operating schedule delivered to it from time to time by Oakville Hydro

## **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 area of Oakville Hydro are required to inform Oakville Hydro of their status in writing, 30 days prior to the supply of energy from Oakville Hydro. The terms and conditions applicable to the connection of an embedded distributor shall be included in the Connection Agreement with Oakville Hydro.

An embedded distributor shall enter into a Connection Agreement in a form acceptable to Oakville Hydro, the contents and the format of which will be at Oakville Hydro's discretion and be in conformity with the requirements of the Distribution System Code. Until such time as the embedded distributor executes such a Connection Agreement with Oakville 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.

### **3.7.1 Connection Request**

An embedded distributor shall submit its request to Oakville Hydro, summarizing in writing the required initial and ultimate load requirements, the required in service date and any other specific requirements.

Oakville Hydro will carry out an initial consultation and determine the scope and estimated cost of preparing a System Impact Study. Oakville Hydro will respond within thirty (30) days of receiving the embedded distributor's request.

### **3.7.2 System Impact Study**

Upon receipt of a purchase order or equivalent from the embedded distributor, Oakville Hydro, in cooperation with the applicant, will study in detail all options and recommend the preferred option. The results of the study will be documented in a system impact report. This report will provide the embedded distributor with preliminary information regarding the work required to provide the requested supply, the estimated capital contribution and the expected lead time.

Oakville Hydro will complete the system impact study within sixty (60) days of receiving the embedded distributor's purchase order to proceed. If, despite Oakville Hydro's best efforts, the sixty (60) day target cannot be met, Oakville Hydro will notify the embedded distributor in writing and provide a new target completion date.

The embedded distributor will review the system impact study and decide whether or not to proceed. To proceed the embedded distributor submits a connection application, provides all necessary Registered Planning Information and a letter of credit with a related purchase order for the preparation of detailed engineering



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specifications. The embedded distributor will submit a connection application to Oakville Hydro within thirty (30) days of receiving the system impact study report, failing which Oakville Hydro may require that a new preliminary review and system impact study be performed at the embedded distributor's cost.

**3.7.3 Costs**

Once the request for connection has been approved, and upon receipt of a purchase order or equivalent from the embedded distributor, Oakville Hydro shall prepare detailed engineering specifications for required system enhancements, obtain cost estimates for the specified work, and determine cost-sharing arrangements.

Within ninety (90) days of receiving the connection application and the accompanying material set out in section 3.7.2 above, Oakville Hydro will provide the Customer, in writing, a Project Description and Letter of Intent that include:

1. a description of the work to be performed by Oakville Hydro;
2. a summary of the work to be performed by the Embedded Distributor;
3. Oakville Hydro's capital investment in the project; and
4. the Embedded Distributor's financial contribution to the project.

If, despite Oakville Hydro's best efforts, the ninety (90) day target cannot be met, Oakville Hydro will notify the embedded distributor in writing and provide a new target completion date.

**3.7.4 Contact Information**

The contact information will be reviewed annually. Each Party will notify each other by November 1 of each year to confirm or update such information. If either party proposes to make a change affecting the embedded connection point, then notice of such change will be given in writing. Such notice will be given a minimum of thirty (30) days prior to any planned implementation of the change. Any change will require the approval of both Parties.

The Customer acknowledges and agrees that Oakville Hydro may provide any information provided by the Customer under the terms of the Connection Agreement to Oakville Hydro's representatives, provided that Oakville Hydro:

- provides such information to only those of Oakville Hydro's representatives who need to know the information; and
- has directed such representatives to use the information in accordance with the terms hereof.

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**3.7.5 Energy Supply**

As the Host Distributor, Oakville Hydro reserves the right to limit the amount of energy that it agrees to supply the embedded distributor at each embedded connection/delivery point, and this amount shall be agreed upon by both Parties.

The embedded distributor shall notify and include Oakville Hydro in any discussion, planning and interconnection design of any proposed embedded generation facility that the embedded distributor proposes to connect to its distribution system as per the Connection Agreement (if applicable).

**3.7.6 Billing**

Oakville Hydro shall bill the embedded distributor on a regular billing cycle for the provision of distribution services by Oakville Hydro, and for all other applicable charges approved or authorized by the Ontario Energy Board, pursuant to Oakville Hydro's rate orders or any codes issued by the Ontario Energy Board.

Oakville Hydro shall settle non-competitive electricity services based on the rates approved by the Ontario Energy Board and by the requirements of the Retail Settlement Code. Oakville Hydro shall adjust the embedded distributor's usage by the applicable total loss factor for purposes of determining the embedded distributor's non-competitive electricity costs.

If the embedded distributor is not a Wholesale Market Participant, then Oakville Hydro shall provide revenue metering for the settlement and monthly billing of the embedded distributor. If the embedded distributor is or becomes a Wholesale Market Participant Distributor, then the Independent Electricity System Operator shall settle the Customer's monthly energy bill.

If the embedded distributor is, or becomes, a Wholesale Market Participant Distributor registered with the Independent Electricity System Operator, the embedded distributor will be responsible for the wholesale metering installation(s) metering data as per the Ontario Market rules.

**3.7.7 Ownership**

All Oakville Hydro-owned equipment, including the revenue metering equipment and instrument transformers, shall continue to be vested in Oakville Hydro, unless the Parties have specified otherwise in the embedded distributor Agreement.

All Customer equipment and facilities shall continue to be vested in the Customer, unless the Parties have specified otherwise in the embedded distributor Agreement.

**3.7.8 Assignment of Responsibility**

The electrical distribution systems shall be under the operating control of a controlling authority at all times.

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The responsibility for regular maintenance of equipment rests with the owner. Oakville Hydro and the embedded distributor shall ensure that only qualified persons perform the operation and maintenance of their respective electrical distribution systems.

Each Party shall be responsible for maintenance, protection and power quality of each Party's portion of the shared distribution feeder that each Party owns. Each Party shall ensure that its portion of the feeder has proper fault protection and voltage within proper limits.

Oakville Hydro and the Customer shall maintain their respective equipment in efficient condition with proper devices, according to electrical distribution utility standards. If, in the opinion of Oakville Hydro or the Customer, maintenance is not properly performed, the identifying Party will notify the other in writing.

**3.7.9 Normal Operations**

Controlling authorities will inform each other at least five (5) business days in advance of any planned work which would have an effect on the other Party's electrical distribution system.

Applications for work involving load interruptions shall be initiated at least ten (10) calendar days in advance, to permit proper notification of other customers who would be interrupted.

Each controlling authority is responsible for establishing the appropriate conditions for, and the co-ordination of, switching on the equipment under its control.

The controlling authority for the equipment under its control shall issue work protection on the equipment when work is done on that equipment. Each controlling authority is responsible for establishing, in accordance with industry standards, a safe work environment for their forces while carrying out planned or emergency maintenance. Each Party is responsible for providing isolation at devices under their operating control to assist the other Party.

**3.7.10 Communication**

Communications between controlling authorities must be readily available to deal with routine and unforeseen system conditions. Each party must identify the controlling authority for communications.

The controlling authority of each Party agrees to communicate for the following reasons:

For normal operating communications with regard to outage planning, work protection and switching, etc.:

**DISTRIBUTION ACTIVITIES  
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- provide each other with information relative to prearranged outages, power interruptions or system problems which materially affect the supply of power to each others distribution system;
- provide each other with information relative to feeder trips or re-closure operations caused by equipment under each Parties ownership or control;
- following a lock-out, Oakville Hydro's Controlling Authority will not authorize the Hydro One Controlling Authority to re-energize a feeder owned by Oakville Hydro to which the embedded distributor is connected until contact has been made with the embedded distributor's Controlling Authority;
- when a permanent fault occurs on a feeder which supplies Oakville Hydro and an embedded distributor load, the Oakville Hydro Controlling Authority will notify the embedded distributor's Controlling Authority during regular working hours, and the embedded distributor's Line Superintendent on call for after-hours permanent faults. Once communication is established and the location of the fault is not known, Oakville Hydro and/or embedded distributor staff will be dispatched to patrol their systems, and may assist each other in sectionalizing the faulted feeder.

If Oakville Hydro and the embedded distributor each own portions of, and share, a common feeder, both Parties agree to provide each other with the following information:

- Oakville Hydro shall provide the embedded distributor with fault current information and protection settings of upstream protective devices;
- the embedded distributor shall provide Oakville Hydro with load forecasting information;
- Oakville Hydro and the embedded distributor agree to maintain phase balance within generally acceptable industry standards;
- Oakville Hydro and the embedded distributor agree to adhere to generally acceptable standards pertaining to power quality and voltage levels on the section of feeder each Party owns; and
- Oakville Hydro and the embedded distributor agree to provide each other, on request, with maintenance schedules and records on the section of feeder each party owns.

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**3.7.11 Emergency Operations**

Each Party will co-operate fully in cases of emergency in order to facilitate restoration of the system back to normal, and to permit the organization of possible repairs.

On the request of one Party's Controlling Authority, the other Party's Controlling Authority, staff or agents, will provide the required timely isolation of equipment as required for emergency switching, or to establish a "Condition Guarantee".

**3.7.12 Metering and Fault Protection**

Oakville Hydro agrees to deliver electricity to the embedded distributor's distribution system through an interval meter for settlement purposes.

If the embedded distributor is, or becomes, a Wholesale Market Participant Distributor registered with the Independent Electricity System Operator, the Customer will be responsible for the wholesale metering installation(s) metering data as per the Ontario Market rules. Oakville Hydro shall have read-only access to such wholesale metering installations.

The Parties shall act at all times in accordance with the Distribution System Code, for situations where Oakville Hydro or the embedded distributor provides distribution services through a load transfer.

Oakville Hydro and the embedded distributor shall each manage its own portion of a supply feeder, and ensure that its portion of the feeder has proper fault protection and voltage within proper limits in accordance with industry standards.

The owner of the feeder breaker would be responsible for maintaining appropriate relay settings for overall feeder protection, and both Oakville Hydro and the embedded distributor would be responsible to provide the required information to accomplish this.

**3.7.13 Security**

The amount of security that the embedded distributor will have to provide to Oakville Hydro shall be an amount equal to 2.0 times Oakville Hydro's estimate of the embedded distributor's average monthly bill, or an average one-month billing if enrolled in the pre-authorized payment plan, for all supply points listed in the standard agreement.

The security to be provided by the embedded distributor shall be any one or a combination of the following types of security: irrevocable standby letter of credit or cash deposit. If the embedded distributor provides an irrevocable standby letter of credit as security, the embedded distributor and Oakville Hydro agree that the irrevocable standby letter of credit will be automatically renewed unless the embedded distributor provides notification in writing ninety (90) days prior to the termination date.

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Interest on cash Security Deposits will be calculated in accordance with Section 2.4.3 – Deposits of these Conditions of Service.

**3.7.14 Liability**

Oakville Hydro shall only be liable to the embedded distributor, and the embedded distributor shall only be liable to Oakville Hydro, for any damages which arise directly out of the willful misconduct or negligence:

- of Oakville Hydro in providing distribution services to the embedded distributor;
- of the embedded distributor in being connected to Oakville Hydro's distribution system;

or

- of Oakville Hydro or the embedded distributor in meeting their respective obligations under the DSC, their licences, and any other applicable law.

The embedded distributor agrees to take out liability insurance in the amount of \$5,000,000, or from time to time such other amount as may be determined by Oakville Hydro in its sole discretion, to which the Town of Oakville and Oakville Hydro are added as additional named insured, and to provide proof of such insurance.

Despite the above, neither Oakville Hydro nor the embedded distributor shall be liable under any circumstances whatsoever for any 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 notwithstanding the embedded distributor's financial contribution as per Section 3.7.3. – Billing of these Conditions of Service.

**3.7.15 Force Majeure**

Subject to the items below, neither Party shall be held to have committed an event of default in respect of any obligation under the embedded distributor agreement if prevented from performing that obligation, in whole or in part, because of a force majeure event.

If a force majeure event prevents a Party from performing any of its obligations under the DSC and the embedded distributor agreement, that Party shall:

- promptly notify the other Party of the force majeure event and its assessment, in good faith, of the effect that the event will have on its ability to perform any of its obligations. If the immediate notice is not in writing, it shall be confirmed in writing as soon as reasonably practicable;

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- not be entitled to suspend performance of any of its obligations under the embedded distributor Agreement to any greater extent, or for any longer time, than the force majeure event requires it to do;
- use its best efforts to mitigate the effects of the force majeure event, remedy its inability to perform, and resume full performance of its obligations;
- keep the other Party continually informed of its efforts; and
- provide written notice to the other Party when it resumes performance of any obligations affected by the force majeure event.

Notwithstanding any of the foregoing, settlement of any strike, lockout or labour dispute constituting a force majeure event shall be within the sole discretion of the Party to the Embedded Distributor Agreement involved in the strike, lockout or labour dispute. The requirement that a Party must use its best efforts to remedy the cause of the force majeure event, mitigate its effects, and resume full performance under the embedded distributor Agreement and the DSC shall not apply to strikes, lockouts or labour disputes.

## **3.8 Unmetered Connections**

*This section will include all terms and conditions applicable to unmetered connections such as but not limited to the following;*

### **3.8.1 Street Lighting**

Unless agreed to by both Parties, roadway lighting such as the Town of Oakville and the Regional Municipality of Halton shall be controlled by photo cells. The daily consumption for these Customers shall be based on the connected wattage and the required lighting times established in the approved OEB street lighting load shape template. The monthly distribution charge shall be based on the number of connections to the distribution system.

It is the responsibility of the customer, or its agents, to advise Oakville Hydro of any changes in the connected wattage. Oakville Hydro will recalculate the daily consumption and update its billing system with the next full billing cycle.

Attachment of street lighting equipment to Oakville Hydro's electrical distribution system and the electrical supply to street lighting equipment is subject to approval by Oakville Hydro Street lighting plant, facilities, or equipment owned by the Customer are subject to the Electrical Safety Authority (ESA) requirements.

Charges related to the connection of street lighting will be recovered from the Customer through a variable connection fee.

### **3.8.2 Traffic signals and Pedestrian X-Walk Signals/Beacons**

Traffic signals and pedestrian X-walk signals/beacons shall have a rate classification of Unmetered Scattered Load, as approved by the OEB. The service will be unmetered. Oakville Hydro will calculate the daily consumption for the purpose of billing based upon the connected wattage information provided by the customer and the estimated number of hours of use. It is the responsibility of the Customer to report to Oakville Hydro in writing any change of connected wattage along with documentation supporting the change. Oakville Hydro will update its billing system with the new load information effective with the next full billing cycle.

Each traffic signal and pedestrian X-walk signal/beacon location is reviewed individually and is connected to Oakville Hydro's low voltage distribution system. Electrical Safety Authority (ESA) "Authorization to Connect" is required prior to connecting the service.

Service conductors will be supplied by the Customer.



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Where transformation does not exist, it will be provided as part of the Variable Connection Fee. A capital contribution will be required.

The Ownership Demarcation point is as follows:

- for Overhead - the top of the Customer's service standpipe/mast;
- for Underground – the line side of the fuse in the first handwell, tap box, junction box, transformer (as applicable) beyond Oakville Hydro's plant.

Connection assets will be recovered through a Variable Connection Fee, based on actual costs.

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

**3.8.3 Bus Shelters, Telephone Booths, Signs (< 5kW) and Miscellaneous Unmetered Loads (< 5kW)**

This section pertains to the supply of electrical energy for bus shelters, telephone booths, cable TV amplifiers and similar small unmetered loads.

The above service types shall have a rate classification of Unmetered Scattered Load and have the same terms and conditions as outlined in Section 3.8.2 above titled "Traffic Signals and Pedestrian X-Walk Signals/Beacons".

**3.8.4 Decorative Lighting and Tree Lighting Services**

- a) Decorative or Tree Lighting if connected to the Town of Oakville or the Regional Municipality of Halton system will be treated as a Street Lighting Class of service. Please refer to Section 3.8.1 titled "Street Lighting" for applicable Terms and Conditions and rate structure.
- b) Decorative or Tree Lighting connected to Oakville Hydro's distribution system shall have a rate classification of Unmetered Scattered Load or General Service (<50 kW) Class Customers. Refer to the Schedule of Rates.
  - i. **For unmetered service installations**, refer to Section 3.8.2 titled Traffic Signals and Pedestrian X-Walk Signals/Beacons for applicable Terms and Conditions.
  - ii. **For metered service installations**, refer to 3.2 General Service (Under 50 kW) for applicable Terms and Conditions.

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.

## **3.9 Temporary Service**

### **3.9.1 General**

A temporary service is a metered service provided to facilitate various applications; including but not limited to uses such as construction projects, outdoor shows, gatherings, and special events. Temporary services may be provided for a period of less than 12 months. Temporary services may be renewed thereafter at the discretion of Oakville Hydro. If an extension is required then the equipment for such temporary service must be re-inspected prior to the extension. At the discretion of Oakville Hydro, one or more temporary services may be provided for a site.

Temporary services can be supplied overhead or underground. The location of the Service Entrance point and metering details will be established through consultation with Oakville Hydro. Failure to comply may result in modifications at the owner's expense.

All installations that are built by the Customer will be built in accordance with the Electrical Safety Code and approved by the Electrical Safety Authority.

Subject to the requirements of Oakville Hydro, supply will be connected after receipt of a 'Connection Authorization' from the Electrical Safety Authority, a signed contract and a deposit as outlined in Section 2.4.3 from the Customer.

In the case of temporary overhead services, the Customer shall leave 760 mm of cable at the masthead for connection purposes.

In the case of temporary underground services, the Customer's cable shall extend to Oakville Hydro's point of supply.

The Customer will be responsible for all associated costs for **the installation and removal** of equipment required for a temporary service to Oakville Hydro's point of supply. The Customer will pay for the temporary installation and removal based on Oakville Hydro's estimated costs of such installation and removal prior to the commencement of any work being initiated by Oakville Hydro.

There will be a minimum charge to all temporary services based on OEB approved rates. This charge is based on 30 metres of conductor and connection to the electrical distribution system.

Connection assets above and beyond the above standard allowance will be recovered based on actual costs. Where the Customer has paid Oakville Hydro for the temporary installation and removal on the basis of an estimate of such costs, and the actual costs are higher than the estimate, the Customer shall pay Oakville Hydro the balance of its actual costs for the installation and removal failing which, Oakville Hydro will apply any outstanding amount against the Customer's temporary deposit.

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The cost of any transformation may be charged to the Customer as part of the actual costs prior to energization. As appropriate, upon removal, the Customer will be credited the cost of the transformer, as long as it is in working order. The Customer is responsible for the transformer. If any damage whatsoever occurs, the Customer will retain ownership of the transformer and the cost **will not** be credited to the Variable Connection Fee.

All construction that occurs on private property will be the responsibility of the Customer.

Any modifications or changes to the above will be at the discretion of Oakville Hydro

**3.9.2 Metering**

The owner will make provisions acceptable to Oakville Hydro for revenue metering equipment. The provisions for metering could be one or a combination of the following, as established by Oakville Hydro:

- approved meter sockets as indicated in Table 4;
- a lockable enclosure as outlined in Table 5; or
- for all three phase outdoor services, the meter must be installed in a weatherproof, lockable enclosure.

Where meter bases are required, they must be approved by Oakville Hydro and shall be securely mounted on minimum 152 mm diameter poles (or alternative if approved by Oakville Hydro) so that the midpoint of the meter is 1.73 m ( $\pm$  100 mm) from finished grade.

The metering equipment location will be agreed upon through consultation with Oakville Hydro. The location allocated for Oakville Hydro metering equipment shall be directly accessible to Oakville Hydro staff, and shall be subject to satisfactory environmental conditions, some of which are:

- safe and adequate working space with not less than 1.2 metres in front of the metering equipment;
- protection against the adverse effects of moving machinery, vibration, dust, moisture or fumes.

Prior to energization, Oakville Hydro will require notification of approval by the Electrical Safety Authority. The Service Entrance and metering provision shall be inspected and accepted by Oakville Hydro prior to energization.

## **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 DSC 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:

A	Electricity Act, 1998, S.O. 1998, C.15, Schedule A, Section 2, Definitions
MR	Market Rules for the Ontario Electricity Market, Chapter 11, Definitions
DL	Distribution Licence, Part I, Definitions
DSC	Distribution System Code Definitions
RSC	Retail Settlement Code Definitions

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

“affiliate” with respect to a corporation, has the same meaning as in the *Business Corporations Act*; (RSC)

“Affiliate Relationships Code” means the code, approved by the Board (OEB) 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; (DL, DSC, RSC)

“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, DL, DSC)

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

## GLOSSARY OF TERMS

“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)

“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, DL, DSC, RSC)

“building” means a building, portion of a building, structure or facility; (RSC)

“competitive electricity costs” means those costs billed through the IESO or paid by the distributor to embedded retail generators or neighbouring distributors that cover competitive electricity services. Such costs will apply to electricity supply whether such supply is provided via Standard Service Supply (SSS) or a competitive retailer; (RSC)

“competitive retailer” is a person who retails electricity to Customers who do not take Standard Service Supply (“SSS”);

“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 to a Customer; (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 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, DL, DSC, RSC)

## GLOSSARY OF TERMS

“Controlling Authority” means a person responsible for performing, directing, or authorizing changes in the conditions or physical position of specific apparatus or devices;

“Customer” means a person that has contracted for or intends to contract for connection of a building. This includes developers of residential or commercial subdivisions;(DSC)

“demand” means the average value of power measured over a specified interval of time, usually expressed in kilowatts (kW). Typical demand intervals are 5, 15, 30 and 60 minutes;

“demand meter” means a meter that measures a Customer’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 Customer; (DSC)

”disconnect/collection trip” is a visit to a customer’s premises by an employee or agent of the distributor to demand payment of an outstanding amount and to shut off or limit distribution of electricity to the customer failing payment;

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

“distribution line” means the circuits on the public right-of-way or easement from which service connections are tapped;

“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 system loss factor” means a factor(s) 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, for which a charge or rate has been approved by the Board under section 78 of the Ontario Energy Board Act; (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

## GLOSSARY OF TERMS

and the connection assets used to connect a Customer to the main distribution system; (A, MR, DL, 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; (DL, DSC, RSC)

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

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

“electric service” means the conductors and equipment from Oakville Hydro’s main distribution system to the ownership demarcation point;

“embedded distributor” means a distributor who is not a wholesale market participant and that is provided electricity by a host distributor; (RSC, DSC)

“embedded generator” or “embedded generation facility” means a generator whose generation facility is not directly connected to the IESO-controlled grid but instead is connected to a distribution system; (DSC)

“embedded retail generator” means an embedded generator that settles through a distributor’s retail settlements system and is not a wholesale market participant; (DSC)

“embedded wholesale Customer” means a Customer who is a wholesale market participant whose facility is not directly connected to the IESO-controlled grid but is connected to a distribution system; (DSC, RSC)

“embedded wholesale generator” means an embedded generator that is a wholesale market participant; (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” means a generation facility that has a transfer switch that isolates it from a distribution system; (DSC)

## GLOSSARY OF TERMS

“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, DSC)

“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 an existing distribution system that is made for purposes of improving system operating characteristics such as reliability or power quality or for relieving system capacity constraints resulting, for example, from general load growth; (DSC)

“expansion” means an addition to a distribution system in response to a request for additional Customer connections that otherwise could not be made; for example, by increasing the length of the distribution system; (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)

“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, DL, DSC, RSC)

“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, DL, DSC, RSC)

“generator” means a person who owns or operates a generation facility; (A, MR, DL, DSC, RSC)

“geographic distributor,” with respect to a load transfer, means the distributor that is Licenced 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



## GLOSSARY OF TERMS

during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment 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 the registered wholesale market participant distributor who provides electricity to an embedded distributor; (RSC, DSC)

“IEC” means International Electrotechnical Commission;

“IEEE” means Institute of Electrical and Electronics Engineers;

“IESO” means the Independent Electricity System Operator established under the *Electricity Act*; (A, DL, DSC)

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

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

“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 service” refers to Oakville Hydro’s incoming cables and the customer’s buss, duct, disconnecting and protective equipment for a Building or from which all other metered sub-services are taken;

“Market Rules” means the rules made under section 32 of the *Electricity Act*; (MR, DL, 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)

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

## GLOSSARY OF TERMS

“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)

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

“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)

“Owner” means a person, persons, or company owning property in the Oakville Hydro service area;

“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; (DSC)

## GLOSSARY OF TERMS

“person” or “persons” 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)

“point of supply,” with respect to an embedded generator, means the connection point where electricity produced by the generator is injected into a 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; (DL, DSC, RSC)

“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);

“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*; (DL, DSC)

“retail”, with respect to electricity means,

- a) to sell or offer to sell electricity to a Customer;
- 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 Customer with respect to the sale or offering for sale of electricity; (A, MR, DL, DSC, RSC)

“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

## GLOSSARY OF TERMS

Customers and provides for tracking and facilitating Customers' transfers among competitive retailers; (DL, DSC)

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

"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 Licenced retailer and a distributor, in accordance with the provisions of Chapter 12 of the Retail Settlement Code; (RSC)

"service contract" means the document that identifies a specific Customer and highlights the key conditions in these Conditions of Service;

"service area," with respect to a distributor, means the area in which the distributor is authorized by its Licence to distribute electricity; (A, DL, DSC, RSC)

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

"service entrance" means the point at which the service wires enter the Customer's building;

"service wires" means the conductors from Oakville Hydro's distribution line on the public right-of-way or Oakville Hydro easement to the Customer's building or service entrance;

"Standard Supply Service Code" means the code approved by the Board and in effect at the relevant time, 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; (DL)

"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);

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

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

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

## GLOSSARY OF TERMS

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

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

“unaccounted for energy” means all energy losses that cannot 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, RSC)

“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 buyer” means a person that purchases electricity or ancillary services in the IESO-administered markets or directly from a generator; (DL, DSC)

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

“wholesale settlement cost” means costs for both competitive and non-competitive electricity services billed to a distributor by the IESO or a host distributor, or provided by an embedded retail generator or by a neighboring distributor; (RSC, DSC)

“wholesale supplier” means a person who sells electricity or ancillary services through the IESO-administered markets or directly to another person, other than a Customer; (DL, DSC, RSC)

## **Abbreviations**

O/H - overhead

U/G - underground

## Tables

Table 1	Ownership Demarcation Points & Charges for Connection Assets and Disconnection
Table 2	Street Lighting Points of Ownership Demarcation & Connection Fees
Table 3	Customer Owned Transformers
Table 4	Meter Sockets
Table 5	Meter Cabinets
Table 6	Instrument Transformer Compartments
Table 7	Meter Centres

**Table 1****Ownership Demarcation Points & Charges for Connection Assets and Disconnection**

<b>Residential /Farms – Single Service</b>						
<b>Customer Class</b>	<b>Ownership Demarcation Point</b>	<b>Standard Allowance (Basic Connection)</b>	<b>Basic Connection Fee (for Standard Allowance)</b>	<b>Variable Connection Fee</b>	<b>Additional Services Charged to Customer (as part of Variable Connection)</b>	<b>Service Disconnection Fee (Initiated by Customer Request)</b>
Existing Overhead (Not requiring transformation facilities on private property)	First point of attachment on private property	Not available – all new or replaced services are underground				Recovered through Distributor's tariffs or rates (See Table 2)
Underground (Not requiring transformation facilities on private property)	Line side of Customer's meter base	Equivalent credit of up to 30 metres of overhead conductor. Transformation is supplied by Oakville Hydro as part of the rates.	Recovered through Distributor's tariffs or rates	Customer charged actual costs for connection assets beyond standard allowance, plus the cost of any road crossing  If Customer's load requires transformation facilities on Customer's property, refer to "General Service" category for U/G service with transformation	Additional or redesign due to changes in Customer's initial proposal; all electrical inspections and civil inspections.	Recovered through Distributor's tariffs or rates. (See Table 2)



**Table 1**

**Ownership Demarcation Points & Charges for Connection Assets and Disconnection**

<b>General Service (Below 50 kW)</b>				
<b>Customer Class</b>	<b>Ownership Demarcation Point</b>	<b>Variable Connection Fee</b>	<b>Additional Services Charged to Customer (as part of Variable Connection)</b>	<b>Service Disconnection Fee (Initiated by Customer Request)</b>
Existing Overhead – Single Service  (Not requiring transformation facilities on private property)	First point of attachment on private property	Not available – all new or replaced services are underground		Recovered through Distributor’s tariffs or rates
Underground – Single Service  (Not requiring transformation facilities on private property)	Transformer secondary terminal, or customer’s junction/pull box	Customer charged actual costs for connection assets, plus the cost of any road crossing.  If Customer’s load requires transformation facilities on Customer’s property, refer to “General Service” category for U/G service with transformation	Additional or redesign due to changes in Customer’s initial proposal; all electrical inspections and civil inspections	Recovered through Distributor’s tariffs or rates

**Table 1**

**Ownership Demarcation Points & Charges for Connection Assets and Disconnection**

<b>General Service (50 - 2500 kW)</b>				
<b>Customer Class</b>	<b>Ownership Demarcation Point</b>	<b>Variable Connection Fee</b>	<b>Additional Services Charged to Customer (as part of Variable Connection)</b>	<b>Service Disconnection Fee (Initiated by Customer Request)</b>
Existing Overhead - Single building  (Not requiring transformation facilities on private property)	First point of attachment on private property	Not available - all new or replaced services are underground		Customer charged actual costs associated with disconnection and/or removal of connection assets up to the demarcation point
Underground – Single building  (Not requiring transformation facilities on private property)	Transformer secondary terminal , or customer’s junction/pull box	Customer charged actual costs for connection assets, plus the cost of any road crossing, cable chamber(s), U/G conduits as required	Additional or redesign due to changes in Customer initial proposal, all electrical and civil inspections	Customer charged actual costs associated with disconnection and/or removal of connection assets up to the demarcation point
Existing Private Overhead – Primary  (Requiring Oakville Hydro owned transformation facilities on private property)	First point of attachment on private property	Not available		Customer charged actual costs associated with disconnection and/or removal of connection assets and related feeder switching/scheduling
Existing Overhead - Single building  (Requiring Oakville Hydro owned transformation facilities on private property)	First point of attachment on private property	Not available - all new services are underground		Customer charged actual costs associated with disconnection and/or removal of connection assets and related feeder switching/scheduling

**Table 1**

**Ownership Demarcation Points & Charges for Connection Assets and Disconnection**

<b>General Service (50 – 2500 kW) continued</b>				
<b>Customer Class</b>	<b>Ownership Demarcation Point</b>	<b>Variable Connection Fee</b>	<b>Additional Services Charged to Customer (as part of Variable Connection)</b>	<b>Service Disconnection Fee (Initiated by Customer Request)</b>
Underground – Single building  (Requiring transformation facilities on private property)	Transformer secondary terminal, or customer’s junction/pull box	Customer charged actual costs for connection assets, plus the cost of any road crossing, transformer connections, associated switching equipment, transformer pads, transformer vaults, cable chamber(s), cable pull rooms, U/G conduits and cabling as required	Additional or redesign due to changes in Customer’s initial proposal; all electrical and civil inspections	Customer charged actual costs associated with disconnection and/or removal of connection assets up to the demarcation point
Underground – Multi-units	Transformer secondary terminal, or customer’s junction/pull box	Customer charged actual costs for connection assets including associated switching equipment, transformer pad(s), transformer vault(s), cable chamber(s), connections in cable chamber(s), tap box(es), U/G conduit & cabling	Additional or redesign due to changes in Customer’s initial proposal; all electrical and civil inspections and related feeder switching/scheduling	Customer charged actual costs associated with disconnection and/or removal of connection assets and related feeder switching/scheduling

**Table 1**

**Ownership Demarcation Points & Charges for Connection Assets and Disconnection**

<b>General Service (2500 kW and up) Continued</b>				
<b>Customer Class</b>	<b>Ownership Demarcation Point</b>	<b>Variable Connection Fee</b>	<b>Additional Services Charged to Customer (as part of Variable Connection)</b>	<b>Service Disconnection Fee (Initiated by Customer Request)</b>
Underground (Customer owned Substation)	The first point of attachment to Oakville Hydro's distribution system	Customer charged actual costs for connection assets, including cable chamber(s), cable pullroom, U/G conduit and cabling and street crossing	Additional or redesign due to changes in Customer's initial proposal; electrical & switchgear inspections, all civil inspection and related feeder switching/scheduling, additional hi-pot protection & control relays, wiring & 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

**Table 2**

**Street Lighting Points of Ownership Demarcation & Connection Fees**

<b>Streetlighting</b>		
<b>Types of Streetlighting Distribution Systems</b>	<b>Ownership Demarcation Point</b>	<b>Variable Connection Fee</b>
Municipally owned (Overhead supply)	- line side of the fuse  - if not fused, point of connection on Distributor's terminal pole/line	Customer charged actual costs for connection assets
Municipally owned (Underground supply)	Transformer secondary terminal	Customer charged actual costs for connection assets

**Table 3 – Customer Owned Transformers**

<b>Transformer Voltage</b>		<b>Recommended Primary Tap Voltage</b>					
<b>Primary</b>	<b>Secondary</b>	<b>+5%</b>	<b>+2 ½%</b>	<b>0%</b>	<b>-2 ½%</b>	<b>-5%</b>	<b>-7 ½%</b>
27.6 kV grd. Y 16 kV	less than 750 V	28980	28290	27600	26910	26220	
27.6 kV grd. Y/16 kV	13.8 kV grd. Y/8 kV						
27.6 kV	2400/4160 Y		28290	27600	26910	26220	25530
13.8 kV	2400/4160 Y		14206	13860	13513	13167	12820
13.8 kV 13860 grd. Y8 kV	less than 750V	14553	14206	13860	13513	13167	

**Table 4 – Meter Sockets**

<b>Self Contained Socket Metering</b>			
<b>Voltage</b>	<b>Phase</b>	<b>Wires</b>	<b>Maximum Service Switch Size Rating (Amperes)</b>
120/240	1	3	200
120/240	1	3	400 *
120/208	2	3	200
120/208	3	4	200
347/600	3	4	200

\* The self shorting meter mounting device shall contain a three (3) wire current transformer. Transformers will be supplied by Oakville Hydro

- Note:**
- 1) A list of approved meter sockets is available on request.
  - 2) Meter sockets shall be mounted so that the midpoint of the meter is at 1700 mm  $\pm$  100 mm.
  - 3) All poly-phase metering shall have a neutral conductor. Where the Customer does not require a neutral, a full size neutral conductor sized in accordance with Table 17 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.

**Table 5 – Meter Cabinets**

Voltage	Phase	Wire	Main Switch Size (Amperes)	Meter Cabinets Note
120/208	3	4	Over 200 to 800	A
347/600			Over 800	B

**Note:**

- A) 1200 mm x 1200 mm x 300 mm complete with removable 1100 mm x 1100 mm back-plate
- B) 900 mm x 900 mm x 300 mm connected to switchgear 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 2000 mm and the minimum distance from the floor to the bottom of the cabinet shall be 600 mm.
  - 4) Meter cabinets to be equipped with rectangular polycarbonate window kit c/w oil resistant gasket. Minimum dimensions 24cm (L) x 12 cm (H). Top of window kit to be positioned 10 cm from top of cabinet in middle of right hand door.

**Table 6 – Instrument Transformer Compartments**

Voltage	Phase	Wire	Service Size (Amperes)	Compartment Size	Number of Instrument Transformers	
					Current	Voltage
120/208	3	4	Over 200	A	3	0
347/600	3	4	Over 200	A	3	3

**Compartment Size (width x height x depth):**

A) 914 mm x 914 mm x 406 mm (36" x 36" x 16"), minimum

All services up to and including 1200 Amps will use Bar Type CTs  
 All services over 1200 Amps will use Window Type CTs

**Notes:**

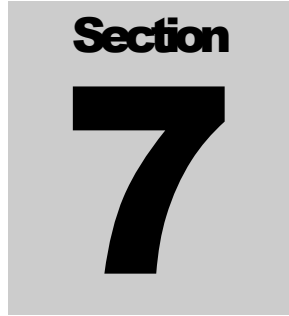
1. For switchgear applications only.
2. Instrument transformers will be provided and installed by Oakville Hydro
3. Voltage transformer connections shall be connected on the line side of the current transformers. Current transformers shall be installed with their polarity marks towards the incoming Oakville Hydro supply.



## **Table 7 – Meter Centres**

Meter centers may be used for general service applications of 600V applications or less, provided they meet the following specifications:

1. Side hinged doors or panels shall be installed over all sections of the switchboard where Oakville 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 or 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 not be less than 600 mm from the finished floor. The centre of the top row of meter sockets shall not be greater 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 up to 200 A., 4 or 5 jaw, not less than 76 mm.
  - b. For up to 200 A., 7 jaw, not less than 152 mm.
8. The meter mounting socket and sealing ring shall be acceptable to Oakville Hydro
9. Where a neutral is required, the meter mounting device shall have a pre-wired, ungrounded neutral connection to the 5<sup>th</sup> or 7<sup>th</sup> terminal. The connection, if not made directly to the neutral bus, shall be not less than #12 AWG copper.



## **Sample Agreements/Contracts**

7.1 Irrevocable Letter of Credit (Sample Format)

7.1

**RATES AND TARIFFS**

(On Customer's Bank Letterhead)

INT'L TRADE CENTRE-ONTARIO  
180 WELLINGTON STREET WEST  
9<sup>TH</sup> FLOOR  
TORONTO, ONTARIO, M5J 1J1

DATE OF ISSUE: \_\_\_\_\_ DATE OF EXPIRY: \_\_\_\_\_  
PLACE OF EXPIRY: \_\_\_\_\_

BENEFICIARY: \_\_\_\_\_ APPLICANT: \_\_\_\_\_  
NAME NAME  
ADDRESS ADDRESS

AMOUNT: \$ \_\_\_\_\_  
\_\_\_\_\_

IRREVOCABLE STANDBY LETTER OF CREDIT NO. \_\_\_\_\_

WE HEREBY ISSUE IN YOUR FAVOUR THIS IRREVOCABLE STANDBY LETTER OF CREDIT WHICH IS AVAILABLE BY PAYMENT AGAINST YOUR WRITTEN DEMAND ADDRESSED TO ROYAL BANK OF CANADA, INTERNATIONAL TRADE CENTRE-ONTARIO, 180 WELLINGTON STREET WEST, TORONTO, ONTARIO, M5J 1J1, BEARING THE CLAUSE:- "DRAWN UNDER STANDBY LETTER OF CREDIT NO. \_\_\_\_\_ ISSUED BY THE ROYAL BANK OF CANADA, INTERNATIONAL TRADE CENTRE-ONTARIO, 180 WELLINGTON STREET WEST, TORONTO, ONTARIO, M5J 1J1" WHEN ACCOMPANIED BY THE FOLLOWING DOCUMENTS:

- 1) TWO COPIES OF UNPAID INVOICE(S).
- 2) BENEFICIARY'S SIGNED CERTIFICATE SPECIFYING AMOUNT(S) CLAIMED AND STATING THAT THE AMOUNT(S) DRAWN IS DUE AND PAYABLE BY THE APPLICANT AND THAT THE APPLICANT IS IN DEFAULT OF ITS OBLIGATIONS WITH RESPECT TO PAYMENTS RELATED TO PURCHASE OF ELECTRICITY OR OTHER OBLIGATIONS AS OUTLINED WITHIN THE PROVISIONS OF THE MARKET RULES.
- 3) THE ORIGINAL OF THIS LETTER OF CREDIT FOR OUR ENDORSEMENT OF ANY PAYMENT.

PARTIAL DRAWINGS ARE PERMITTED.

IT IS A CONDITION OF THIS LETTER OF CREDIT THAT IT WILL BE AUTOMATICALLY EXTENDED WITHOUT AMENDMENT FOR ONE YEAR PERIODS FROM THE EXPIRY DATE HEREOF, OR ANY FUTURE EXPIRATION DATE, UNLESS, NOT LESS THAN FORTY-FIVE (45) DAYS PRIOR TO ANY EXPIRY DATE, WE SHALL NOTIFY YOU BY REGISTERED MAIL

**RATES AND TARIFFS**

OR FAX, AT YOUR ADDRESS SPECIFIED ABOVE, THAT THIS LETTER OF CREDIT WILL NOT BE EXTENDED FOR ANY SUCH ADDITIONAL PERIOD.

EXCEPT AS OTHERWISE EXPRESSLY STATED THIS CREDIT IS ISSUED SUBJECT TO THE INTERNATIONAL STANDBY PRACTICES – ISP98 (ICC PUBLICATION NO. 590).

WE ENGAGE TO HONOUR PRESENTATIONS SUBMITTED WITHIN THE TERMS AND CONDITIONS INDICATED ABOVE.