Conditions of Service
Revised January 07

Article 1.

SECTION 1 - INTRODUCTION

SECTION 2 - DISTRIBUTION ACTIVITIES (GENERAL)

SECTION 3 - CUSTOMER SPECIFIC

HALTON HILLS HYDRO INC.
CONDITIONS OF SERVICE

Section 1 - INTRODUCTION

1.1 Identification of Distributor and Territory

In this section, the distributor should identify their service territory as defined in the distributor's Licence.

In these **Conditions of Service**, "Hydro" refers to **Halton Hills Hydro Inc**. The service area of Hydro coincides with the Town of Halton Hills geographical boundaries.

1.2 Related Codes and Governing Laws

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

1. Electricity Act, 1998
2. Ontario Energy Board Act, 1998
3. Distribution License
4. Affiliate Relationships Code
5. Transmission System Code
6. Distribution System Code
7. Retail Settlement Code
8. Standard Service Supply Code

1.3 Interpretations

This section should describe the rules for interpretation of the Conditions of Service Document

· Words referring to a gender include any gender
· Words referring to the singular include the plural and vice versa

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 this Conditions of Service and any amendments made from time to time form part of any Contract made between Hydro and any connected Customer, Retailer, or Generator, and this Conditions of Service supersedes all previous Conditions of Service, oral or written, of **Halton Hills Hydro Inc**. as of its effective date.

The current version of the document is also posted on the Hydro website and can be downloaded from **www.haltonhillshydro.com**

1.5 Contact Information

This section should provide information on how a Customer can contact the distributor. Include such items as:
C Address of the distributor,
C Telephone numbers,
C Normal business hours, and
C Emergency contact numbers.

HALTON HILLS HYDRO INC. IS LOCATED AT:
43 ALICE ST, ACTON, ONT. L7J 2A9
TEL (519) 853-3700 INCLUDING EMERGENCIES
BUSINESS HRS 8:30-4:30 MONDAY - FRIDAY

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.

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

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

Notwithstanding the above, neither Hydro nor the Customer shall be liable under any circumstances whatsoever for any loss of profits or revenues, business interruption losses, loss of contract or loss of goodwill, or for any indirect, consequential, incidental or special damages, including but not limited to punitive or exemplary damages, whether any of the said liability, loss or damages arise in contract, tort or otherwise.

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

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

Notwithstanding the above, neither Hydro nor the Embedded Generator shall be liable under any circumstances whatsoever for any loss of profits or revenues, business interruption losses, loss of contract or loss of goodwill, or for any indirect, consequential, incidental or special damages, including but not limited to punitive or exemplary damages, whether any of the said liability, loss or damages arise in contract, tort or otherwise.

The Customer or Embedded Generator shall indemnify and hold harmless 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 Customer or the Embedded Generator.

1.7 Distributor Rights

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

1.7.1 Access to Customer Property

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

1.7.2 Safety of Equipment

The Customer will comply with all aspects of the **Ontario Electrical Safety Code** with respect to insuring 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 Hydro to the Customer.

If the Customer does not take such action within this time frame, Hydro shall disconnect the supply of power to the Customer. The policies and procedures of Hydro with respect to the disconnection process are further described in these Conditions of Service.

The Customer shall not build, plant or maintain trees, shrubs, landscaping or structures etc. that, in the sole opinion of Hydro, may affect the safety, reliability, or efficiency of Hydro facilities.

The Customer shall not access, use or interfere with the distribution facilities of Hydro except in accordance with a written agreement. 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 line side of metering equipment.

1.7.3 Operating Control

The Customer will provide a convenient and safe place, satisfactory to Hydro for installing, maintaining and operating its equipment in, on, or about the Customer's premises. 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 Hydro has no control.

No person shall remove, replace, alter, repair, inspect or tamper with equipment of Hydro except an employee or agent of Hydro or another person lawfully entitled to do so.

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

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, in the sole opinion of Hydro, affect the integrity or reliability of the Hydro distribution

system. If the Customer does not take such action within **72 hours** of written notice, Hydro shall disconnect the supply of power.

Policies and procedures with respect to the disconnection process are further described in **Section 2.2** of these Conditions of Service.

1.7.5 Repairs of Customer's Physical Structures

The physical location on a Customer's premises at which a Distributor's responsibility for operational control of distribution equipment ends is defined by the OEB's Distribution System Code as the "Operational Demarcation Point".

Depending on the Operational Demarcation Point, 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 Hydro and the Electrical Safety Authority. The Customer is responsible for the maintenance and safe keeping conditions of its electrical, structural and mechanical facilities located on private property.

1.8 Disputes

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

To resolve disputes, Hydro will follow the terms of Section 23 of the Transitional Distribution Licence. ***Section 23 of the Transitional Distribution Licence states****:*

The Licensee shall:

a) Establish proper administrative procedures for resolving complaints by Consumers and other market participants' complaints regarding services provided under the terms of this Licence.
b) Publish information, which will facilitate its Customers accessing its complaints resolution process.
c) Refer unresolved complaints and subscribe to an independent third party complaints resolution agency, which has been approved by the Board.
d) Make a copy of the complaints resolution procedure available for inspection by members of the public at each of the Licensee's premises during normal business hours.
e) Give or send free of charge a copy of the procedure to any person who reasonably requests it; and

f) Keep a record of all complaints whether resolved or not including the name of the complainant, the nature of the complaint, the date resolved or referred and the result of the dispute resolution.

Hydro's complaints resolution procedure is as follows:

For power outages, or issues related to power supply and delivery, you should contact Halton Hills Hydro Inc. at (519) 853-3700. For complaints related to your electricity contract with a retailer, we suggest that you start by phoning your retailer's Customer Service Department. Keep notes of your actions, including the names of the company representatives you talk to. Follow up with a letter if you don't get satisfaction. If the problem can't be resolved, you should call the Ontario Energy Board at 1-877-632-2727.

Section 2 - DISTRIBUTION ACTIVITIES (GENERAL)

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

2.1 Connections

2.1.1 Building that Lies Along

In this section, the distributor should describe the standard connection allowance or charge used by the distributor in its service territory and describe any variable connection fees that would be charged beyond the standard allowance The distributor also may stipulate in this section other terms and conditions by which a Customer requesting a connection must abide, as long as it is within the terms of this code.

1 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 Hydro has distribution facilities of the appropriate voltage and capacity; and:

i. The building can be connected to Hydro's Distribution system without an Expansion or Enhancement and;
ii. The service installation meets the conditions listed in the Conditions of Service of the Hydro that owns and operates the distribution line.

2. System **connections** will incur a variable connection charge only. Capital Contribution Charges and Basic Connection charges **do not apply**.

For residential Customers, the basic connection for each Customer **shall include:**

iii. Supply and installation of overhead distribution transformation capacity or an equivalent credit for transformation equipment and:
iv. Up to 30 metres of overhead conductor or an equivalent credit for underground services.

3. Basic Connection charges are as follows:

a. Residential Customers: …….Nil
b. General Service Customers<50kW ……..Nil
c. General Service Customers>50kW (Non-time-of-use) …Nil
d. General Service Customers>50kW (Time-of-use) …… ..Nil

4. Variable Connection charges estimated on individual basis.

a. Residential Customers: …… *
b. General Service Customers<50kW: ……. *
c. General Service Customers>50kW (Non-time-of-use):… *
d General Service Customers>50kW (Time-of-use): …… *

2.1.1 Building that Lies Along

* Full estimated charge will be collected in advance of connection as a deposit. Actual charges will be invoiced (or refunded) after connection is made.

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 distributors 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.

1. System **expansions** will incur a Capital Contribution Charge only. Basic Connection Charges and Variable Connection charges **will not apply.** Charges are calculated as follows:

2. Hydro designs the system expansion. Design costs for the electrical distribution system will be separated from those of the street lighting system.

3. System expansion design costs are the responsibility of the Developer.

4. The Developer shall tender to Hydro's approved contactors the construction of the system expansion.

5. A deposit in the form of an Irrevocable Letter of Credit is required for 100% of the tendered construction costs. A receipt for the deposit showing details of what the deposit is intended to cover is provided to the Developer. The receipt is required by the Town of Halton Hills to ensure that the security is in place for a required element of the subdivision before the Town enters into a Subdivision Agreement.

6. The Developer hires a contractor to perform the installation, Hydro inspects the work being performed

7. Security is released as construction progresses, as per agreed to acceptance conditions in the Subdivision Agreement..

8. The Developer provides Hydro with actual costs of infrastructure components in the break down prescribed by Hydro Chart of Accounts.

9. Hydro calculates the Operations, Maintenance & Amortization charges allowed by the Distribution System Code economic evaluations framework and reimburses the Developer up to the level of investment that can be committed given the calculated revenue stream.

10. Investment by Hydro is made as new Customers are added to the system.

11. The difference between the Hydro economic evaluation deemed investment level, and the actual cost of the expansion is considered Contributed Capital and accounted for accordingly.

2.1.3 Connection Denial

The DSC sets outs 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 this 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 Distribution System Code provides for the ability of Hydro as a Distributor to deny connections. As a Distributor, Hydro 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.
- Violations of conditions in Hydro's Licence.
- Use of a distribution system line for a purpose that it does not serve and that the Distributor does not intend to serve.
- Adverse affect on the reliability or safety of the distribution system.
- Public safety reasons or 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.
- Discriminatory access to distribution services.
- If the person requesting the connection owes Hydro money.
- If an electrical connection to Hydro's distribution system does not meet Hydro's design requirements.
- Any other conditions documented in Hydro's Conditions of Service Document.

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

2.1.4 Inspections Before Connections

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

All new, altered or enlarged electrical installations, or any installations disconnected for more than six months must be installed according to the Electrical Safety Code. Hydro is prohibited by law from supplying power to, or energizing in any way, installations that have not been inspected and approved by the Electrical Safety Authority (ESA).

All connections, disconnections and reconnections on the Hydro side of the service must be performed by employees of Hydro and shall be arranged in advance by the Customer.

If in the opinion of Hydro, unsafe conditions exist on a Customer's property, Hydro may apply to the Electrical Safety Authority (ESA) to inspect the conditions.

All underground electrical services installed or altered on public and private property between the Hydro Main Lines and the Customer's Delivery Points are subject to inspection by Hydro at the Customer's expense.

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.

If the Customer requests an established underground or overhead service to be relocated for any reason, the Customer will bear the full cost of relocation of the service.

2.1.6 Easements

The Customer shall grant, at no cost to Hydro, where required, an easement to permit installation and maintenance of service. The width and extent of this easement is to be determined by Hydro.

2.1.7 Contracts

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

All Customers must sign a Contract prior to connection of electrical service. In addition, General Service Customers must post a security deposit. If for some reason, a Contract has not been signed, the Customer is still bound to the terms and conditions as specified in the Contract.

Hydro requires a minimum of forty-eight hours notification for service connection.

Note: The 48 hour connection notice period is only possible for energizing equipment previously installed in anticipation of the service being energized. **To ensure that the equipment installation meets with Hydro requirements, the Customer must notify the Engineering Department well in advance of the 48-hour connection notice period.**

A Contract to supply electricity is non-transferable.

A Customer shall remain liable to the utility until such time the Contract is terminated.

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.

If the supply of electricity to Hydro is interrupted or reduced as a result of an emergency or a breakdown, repair or extension of a transmission or distribution system, Hydro may allocate the available electricity among the consumers in its service area.

Hydro may shut off the distribution of electricity to a property if any amount payable by a person for the distribution or retail of electricity to the property is overdue.

Hydro may recover all amounts payable despite shutting off the distribution of electricity. Hydro may disconnect without notice in accordance with a court order or for emergency, safety or system reliability reasons.

Hydro reserves the right to disconnect the supply of electricity for reasons not limited to:

- 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.

Hydro reserves the right to disconnect the supply of electricity for reasons not limited to:

- A decrease in the efficiency of the distributor's distribution system.
- An adverse effect on the quality of distribution services received by an existing connection.
- Inability of the distributor to perform planned inspections and maintenance.
- Failure of the consumer or Customer to comply with a directive of a distributor that the distributor makes for purposes of meeting its licence obligations.
- Any other conditions identified in the distributor's Conditions of Service document.

2.3 Deliverance 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.

Hydro agrees to use reasonable diligence to provide a regular and uninterrupted service but does not guarantee constant voltage or service and will not be liable for damages occasioned by the failure to provide such services to the Customer.

Customers requiring a higher degree of security than that of normal supply are responsible for providing standby or backup facilities to meet their security requirements at their own cost.

Hydro may at reasonable times, enter land on which its transmission or distribution system is located:

(a) to inspect, maintain, repair, alter, remove, replace or disconnect wires or other facilities used to transmit or distribute electricity; or

(b) to install, inspect, read, calibrate, maintain, repair, alter, remove or replace a meter.

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.

Hydro attempts to maintain voltage variation limits, under normal operating conditions at the Customer's delivery points, as specified by the Canadian Standards Association **C235**, latest edition.

2.3.3 Conveyance of Electricity

Customers requiring a three-phase supply should install protective apparatus to avoid damage to their equipment that may be caused by power interruptions of one phase, or non-simultaneous switching of phases of the Hydro.

2.3.4. Electrical Disturbances

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

No electrical equipment shall be connected to the Customer's service that will produce an undesirable effect that may reflect in Hydro circuits.

Customers shall consult with the engineering department of Hydro in the early planning stages to ensure that proposed equipment will not cause undesirable system disturbances.

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

Hydro at its discretion may require the installation of additional facilities to nullify any undesirable effect in Hydro's circuits, and the additional facilities will be installed at the Customer's expense.

2.3.5. 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.

SUBTRANSMISSION VOLTAGE: 44kV, 3 Phase, 3-Wire
27.6kV/16000V, 3 Phase, 4-Wire

DISTRIBUTION VOLTAGE: 4.16kV/2400V 3 Phase, 4-Wire
8.32kV/4800V 3 Phase, 4-Wire
27.6kV/16000V 3 Phase, 4-Wire

STANDARD SECONDARY: where Hydro retains ownership of transformers, the secondary Voltage supplied to the Customer shall be one of the following:
120/240V, 1 Phase, 3-Wire or
120/208V, 3 Phase, 4-Wire (up to 300kva) or
347/600V, 3 Phase, 4-Wire

2.3.6 Voltage Guidelines

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

Hydro attempts to maintain voltage variation limits, under normal operating conditions at the Customer's delivery points, as specified by the Canadian Standards Association C235, latest edition.

2.3.7 Back-up Generators

Distributors should include the following statements in this section:
C 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 on the Distributor's system.
C 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 back up shall comply with all applicable criteria of the Ontario Electrical Safety Code. In particular, the Customer shall ensure that Customer's back up
generation does not parallel with the Hydro system without a proper interface protection and does not adversely affect Hydro's system.

Customers with permanently connected back -up generation equipment shall notify Hydro regarding the presence of such equipment.

2.3.8 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.

GENERAL:

Hydro reserves the right as the sole revenue meter provider within the service area of The Town of Halton Hills geographical boundaries. Including but not limited to the type of: meter & associated equipment; data acquisition technology; communication medium. Exceptions would only be permissible at the discretion of Hydro.

All equipment used shall comply with the ***"Electricity and Gas Inspection Act***" as stated by Industry Canada, Legal Metrology

All services below 50 kW will be converted to / or initiated as Smart Metering to comply with Ontario Ministry of Energy Smart Metering Initiative.

The latest edition of rules in the "***Ontario Electrical Safety Code***" shall govern all installations**.**

All installations shall be further governed by the policies and engineering standards of Hydro.

All equipment used shall be rated and marked C.S.A approved to the latest standards of the ***Canadian Standards Association***.

Replacement**: meter & associated equipment** shall be carried out by Hydro Meter Dept. In the case of damage **by: smashed meter; overloading; ground fault; flash over; etc.; or** by third party damage **the customer/ third party will pay time, equipment, & material costs.**

THE CUSTOMER:

Shall provide Hydro **permanent** access to meters **& communication panels** in areas that are not normally available to the general public **(i.e. Electrical or Meter Rooms; Meter Closets; Vaults) via keys or key pad pass codes** prior to energizing service.

Shall not perform unauthorized work within 3m (10ft) of Hydro's primary main line**.**

Shall NOT install the meter or its supporting equipment (including but not limited to the meter base, secondary cables and ducts, etc…) within 1.0m of other utilities (gas, telephone, cable, etc…). This applies to all types of services, single or three phase, residential, commercial, or industrial. If Hydro personnel determine that the clearance of 1.0m has not been met, Hydro may demand rework of the service to achieve the required clearance of 1.0m, which will be done at the customer's expense.

Shall provide:

- Certificate of approval for connection by the Electrical Safety Authority;

- Minimum of forty-eight hours notice required prior to energization;

- At all times provide a safe working distance of 1220mm (48") around residential & industrial metering equipment;

- Notification to Hydro of any change that would alter the existing location, ampacity or load on the service.

Shall complete an Application for Service contract (Residential/ Commercial as applicable) prior to Hydro energizing service.

Shall pay all the expense fees associated with the new service or service upgrade in advance of any construction, the details of which may be obtained by contacting the Hydro's Engineering Department.

Multi-unit services will have Check Metering at the service entrance in conjunction with individually metered sub-services:

The Customer shall provide: lockable meter rooms and/ or closets where individual unit meters are grouped together. The Customer shall supply and install all: metering equipment/ infrastructure; communication for individually metering each separate store, shop, and apartment or industrial unit located in a shopping plaza, condominium, or industrial unit. Hydro will supply and own the meter.

HYDRO:

Shall energize the primary and/or connect the secondary terminations at the transformer and install a revenue meter. Under normal circumstances the Hydro will energize the service **to the line side of the Main Disconnect or Breaker** within 48 hours upon receipt of the written service connection approval from ESA.

Note: The 48 hour connection notice period is only possible for energizing equipment previously installed in anticipation of the service being energized. **To ensure that the service Metering equipment installation meets with Hydro requirements, the Engineering Department and/ or Customer must notify the Meter Department upon payment of Construction Charges. To review the overall installation and provide adequate lead time for the delivery of meters; and/ or instrument transformers, notification shall be provided well in advance of the 2 business days connection notification period.**

Smart Metering

The Government of Ontario's legislated Smart Metering Initiative directs Hydro to convert existing & initiate new services with Smart Metering & associated infrastructure for customers bellow 50 kilowatt. Hydro will:

- Make every attempt to inform the customer their power will be off briefly but reserves the right to exchange without notice.
- Not be held liable for: lost data on home or business computers; - Not be held liable for damage to customer owned equipment such as meter bases, due to: old age; overloading; fatigue; cracked or broken base jaws; etc.

Shall retain the right to refuse connecting a service.

When applicable shall, in respect of the Government of Ontario's Smart Metering Initiative, install a smart meter at time of energization or at a future to be determined date.

All multi-residential apartment and/ or condo buildings shall be individually metered by the utility. The customer shall be responsible for installing all equipment necessary to individually meter each unit with the exception of the actual meter to be supplied by Halton Hills Hydro.

SINGLE PHASE METERING: **Residential and small commercial.**

All new services:

-Will be supplied at 120/240 volts, single phase 3-wire.

-Shall be supplied underground and will be designed to 200 amps minimum.

All meter bases shall be CSA approved four jaw socket type meters and of the manufacturer's designation for "over sized model" as opposed to their "standard size model". Hydro shall specify the appropriate meter base(s) for use.

THE CUSTOMER:

Shall supply a 200 amp meter base (or 400 amp meter base if applicable) as per Table "A" for an individual service.

Shall supply and install the meter base externally, before the main disconnect, at 1.67m. +/- 150mm (5ft.6in. +/-6in) from finished grade to the center of the meter, within 1.22m (4ft.) from a front corner of the building on a pathway which is cleared of obstacles at all times (includes snow).

CENTRALLY LOCATED SERVICES:

C.M.S. Metering will be required for customers with more than one service supplied by one Distribution Transformer with minimum 200 amp secondary *or* a single phase service greater than 200 amps. There are three types of installations all require 5 jaw bases supplied by customer:

1) Overhead primary: Current transformer located under Distribution Transformer, meter on same pole,

2) Underground secondary: Meter & current transformer combination located externally on building,

3) Underground Padmount: Current transformer located inside padmount Transformer, meter located on 6"x 6" Pressure treated post anchored to concrete pad positioned to the right side & back of padmount transformer opening, thus not obstructing access to secondary terminals.

THREE PHASE METERING: **Larger commercial operations.**

Authorization to install a service other than stated below must be obtained from the Engineering Department. All new and upgraded services will be supplied with a utilization voltage of 120/208 (up to 300kva) or 347/600, 3 phase and 4-wire.

Specialty metering items or conditions (other than the Hydro's normal) will be supplied by the Customer (i.e.: Electronic Pulse Metering, Primary Metering etc.)

THREE PHASE METERING:

All cabinets shall be 1220 x 1220 x 300mm (48"x48"x12") unless stated otherwise.

Where services utilize instrument transformers mounted in the switchgear a 820 x 820 x 30mm (32"x32"x12"), the cabinet shall be installed within 9 metres (30') of the instrument transformers. There shall be a 38mm (1.5") conduit between the instrument transformer cabinet and the meter cabinet.

The meter cabinet shall be complete with a 120-volt outlet fed from a dedicated, 15 amp, Ground Fault Interrupt, circuit breaker and a dedicated "voice" quality or better telephone line. The telephone line shall be activated at Hydro's discretion and at the Customer's expense.

The Customer shall supply the back plate to Hydro, a minimum of two weeks prior to the required installation date. The following information shall be marked in indelible ink on the back plate:

- Top of the back plate marked '**TOP**" (since the backing plate mounting may not be square).
- Location where "**LINE**" and "**LOAD**" wires will enter and exit at opposite ends of the cabinet.
- Contact person/telephone numbers for the Company, Customer, and electrical contractor. Service voltage and amperage size. Number and size of service conductors.

Leave 1.83m (6ft.) of service conductor looped in the cabinet for meter connections.

Where more than one conductor per phase is used, the connectors shall be provided by the Customer and charged to the Customer.

The Customer shall supply equipment and labour except for the meters, instrument transformers and labour for the meter connections in a meter cabinet.

All existing overhead services being upgraded may remain overhead at the discretion of Hydro.

THE CUSTOMER:

Shall contact and coordinate all metering related issues with Halton Hills Hydro's Metering Department.

Services up to 200 amps shall use a 7-jaw, socket type meter base for a self-contained meter and be of the manufacturer's "over sized model" as opposed to their "standard size model" **(refer to Table "A").**

All three phase metering installations are to be installed inside the building. Three phase services above 200 amps require a meter cabinet inside the building. Main switch (disconnect) to be installed ahead of the meter on all three phase services.

Hydro Meter Department will retain the right to refuse connection of service.

2.4 Tariffs and Charges

2.4.1 Service Connection

Charges for distribution services are set out in the Schedule of Electricity Rates available from Hydro. In the event that the Ontario Energy Board approves rate changes, notice will be given by newspaper advertisements and a Customer-billing insert with the first bill of the approved rates.

2.4.1.1 Customers Switching to Retailer

There are no physical service connection differences between Standard Service Supply (SSS) Customers and retailer Customers. Both Customer energy supplies are delivered through Hydro with the same distribution requirements. Therefore, all service connections requirements applicable to SSS Customers are applicable to retailer Customers.

Where a Customer proposes the development of premises that require Hydro to place orders for equipment and before such equipment is ordered, the Customer is required to sign the necessary Supply agreement and furnish a suitable deposit.

An irrevocable 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.

2.4.2 Energy Supply

2.4.2.1 Standard Supply Service

All existing Hydro Customers are automatically Standard Service Supply (SSS) Customers until such time that Hydro is informed of their switch to an electricity retailer. The Customer or Customer's authorized retailer must make the Service Transfer Request. (STR).

2.4.2.2 Retailer Supply

Standard Supply Service Customer's switching to a retailer shall comply with the Service Transfer Request (STR) requirements as outlined in sections 10.5 to 10.5.6 of the Retail Settlement Code.

All requests shall be submitted through the retailers Hub provider as Electronic Business Transactions (EBT). Service Transaction Requests (STR) shall contain the information as set out in Section 10.3 of the Retail Settlement Code.

If the information is incomplete, Hydro will reject the Service Transaction Request (STR) with appropriate information on the nature of the rejection.

2.4.2.3 Wheeling of Energy

All Customers considering delivery of electricity through Hydro's distribution system are required to contact Hydro for technical requirements and applicable tariffs.

2.4.3 Deposits

Residential customers

Residential customers are required to pay a security deposit to Hydro unless they meet one of the following criteria:

1. The customer can provide a satisfactory letter of reference from a previous electric or gas utility in Canada. The letter of reference must include a minimum of 12 months history where at least a portion of that time has been within the last 24 months. A letter of reference will be considered unsatisfactory if it contains information showing more than one NSF payment and/or disconnection notice.
2. The customer provides a satisfactory credit check at the customer's expense.

Methods of payment

Security deposits must be in the form of:

a) Cash
b) Cheque
c) Debit (at the office only)
d) Credit Card (convenience fee will apply-Visa and Mastercard accepted)

Calculation of Security Deposit

Security deposits are calculated based on the following formula:

1.75 times the average bi-monthly bill during the most recent 12 consecutive months within the last 2 years (or an estimation if historical billing information is not available)

This formula represents the maximum amount of a security deposit.

Hydro reserves the right to disconnect service if a deposit is unpaid.

Interest

Interest will be accrued monthly (beginning once the entire amount of the deposit has been received). The interest rate will be the Prime Business Rate (as published on the Bank of Canada website) less 2% and updated quarterly. Interest will be applied to the account yearly.

Recalculations and Adjustments

Once each calendar year, all deposit accounts, paid in full, will be reviewed and security deposits will be recalculated and may be refunded, in whole or in part, as a credit to the account, dependent upon the payment history of the customer. If a payment history changes, Hydro will use the highest bill in the last 12 months to recalculate a new deposit amount. The entire amount of the new deposit will be due with the next regular bill.

Cash security deposits obtained from customers will be applied to the final bill and any remainder will be refunded with interest to the customer within 6 weeks of receiving a final meter reading.

Security deposits shall not constitute a payment of an outstanding account, in whole or in part, and shall only be applied to amounts owing on a Hydro account when the account is closed.

Hydro Conditions of Service

Commercial customers

Commercial customers are required to pay a security deposit to Hydro unless they meet one of the following criteria:

1. The customer can provide a satisfactory letter of reference from a previous electric or gas utility in Canada. The letter of reference must include a minimum of 5 years history for customers whose demand is less than 50kW and a minimum of 7 years for customers whose demand is greater than 50kW, where at least a portion of that time has been within the last 24 months. A letter of reference will be considered unsatisfactory if it contains information showing more than one NSF payment and/or disconnection notice.
2. The customer provides a satisfactory credit check at the customer's expense. (This option is not valid for customers over 5MW demand).
3. The customer can provide an Irrevocable Letter of Credit with automatic renewal provision.

Methods of payment

Security deposits must be in the form of:

a. Cash
b. Cheque
c. Debit (at the office only)
d. Credit Card (convenience fee will apply-Visa and Mastercard accepted)

Calculation of Security Deposit

2.5 times the average monthly bill during the most recent 12 consecutive months within the last 2 years (or an estimation if historical billing information is not available)

Security deposits are calculated based on the following formula:

This formula represents the maximum amount of a security deposit.

Hydro reserves the right to disconnect service if a deposit is unpaid.

Interest

Interest will be accrued monthly (beginning once the entire amount of the deposit has been received). The interest rate will be the Prime Business Rate (as published on the Bank of Canada website) less 2% and updated quarterly. Interest will be applied to the account yearly.

Recalculations and Adjustments

Once each calendar year, all deposit accounts, paid in full, will be reviewed and security deposits will be recalculated and may be refunded, in whole or in part, as a credit to the account, dependent upon the payment history of the customer. Customers with a demand between 50kW and 5MW require 7 years of good payment history to qualify for a 100% refund. Customers with a demand greater than 5MW will only qualify for a 50% refund unless a credit rating is supplied. If a payment history changes, Hydro will use the highest bill in the last 12 months to recalculate a new deposit amount. The entire amount of the new deposit will be due with the next regular bill.

Cash security deposits obtained from customers will be applied to the final bill and any remainder will be refunded with interest to the customer within 6 weeks of receiving a final meter reading.

Security deposits shall not constitute a payment of an outstanding account, in whole or in part, and shall only be applied to amounts owing on a Hydro account when the account is closed.

2.4.4 Billing

Hydro may, at its option, render bills to its Customers on either a monthly, bimonthly, or quarterly basis. Bills for the use of electrical energy may be based on either a metered rate or a flat rate, as determined by Hydro.

Hydro will bill Standard Supply Service Customers.

Standard Supply Customers may dispute the charges shown on their bill by contacting and advising the Customer Care Department of Hydro.

Retailer Customers may be billed by Hydro depending on the billing options selected by the retailer in accordance with the Retail Settlement Code.

Retailer Customers may dispute the charges shown on their bill by contacting and advising the Customer Care Department of the Customer's Retailer.

2.4.5 Payments and Overdue Account Interest Charges

Bills are forwarded for energy services provided to the Customer. Bills are payable in full by the due date, otherwise a late payment charge will apply. Where the Customer on or before the due

date has made a partial payment, the late payment charge will apply only to the amount of the bill outstanding at the due date. In the event of partial payment by a Customer, payments shall be allocated by the portions of the bill covering competitive and non-competitive electricity costs based on the ratios of the amount billed for competitive and non-competitive costs.

Outstanding bills are subject to the collection process and may ultimately lead to the service being discontinued. Service will be restored once satisfactory payment has been made. Discontinuance of service does not relieve the Customer of the liability for arrears.

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.

The Customer will be required to pay additional charges for the processing of non-sufficient fund (N.S.F.) cheques.

Customers will pay special charges and deposits, on request, which may arise from a variety of conditions such as:

Security Deposit:
As a guarantee of payment of energy bills some Customers will be required to pay a deposit to Hydro.

Set up Fee:
A Set Up Fee will apply to all accounts taken over by a new Customer.

Collection Charge:
Whenever a Hydro employee visits a Customer's premises to collect payment for an account, there will be a charge.

2.5 Customer Information

Historical usage information will be provided to a third party who is not a retailer with the written authorization of the Customer.

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

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

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

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

Section 3 – CUSTOMER CLASS SPECIFIC

The Customer Class Specific section shall contain references to services and requirements, which are specific to individual Customer classes. This section should cover such items as:
C Demarcation Point
C Metering
C Service Entrance Requirements
C Delineation of Ownership and Operational points of demarcation
C Special Contracts
C 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 distributors Conditions of Service document.

3.1 Residential Customers

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

This section refers to the supply of electrical power to all detached, semi-detached, duplex, and multi-unit dwellings/ units.

The Customer will be required to obtain an approved technical service layout from the Engineering Department before proceeding with the relocation or installation of any service. Failure to do so may result in the service having to be relocated at the Customer's expense.

Approved service locations or layouts are final. Any deviation without prior consultation with the Engineering Department may be subject to correction at the expense of the Customer.

No layout approvals will be done on Secondary services that are not directly attached to the Hydro's street circuits. **Electrical Safety Authority inspection is required for all work.**

The Customer will be supplied at one service entrance only. Where single-phase power is required, it will be supplied as a 3-wire service having a nominal voltage of 120/240V.

The maximum allowable service is 400A.

All new services from Hydro main line will be installed below ground according to Hydro specifications, at the cost of the Customer. Any exceptions of the above will be at the discretion of Hydro. The customer shall provide a minimum 2 business days notice for trench inspection and Hydro shall inspect the Customer's underground service trench between the Main line and the service entrance point prior to back filling of the trench.

It is the responsibility of the Customer or their Contractor to ensure that cable terminations shall be installed as per manufacturer's recommendations. Only personnel qualified and experienced in this type of work shall make cable connections and terminations. Upon request, proof of the qualifications of personnel making terminations shall be submitted to HHH for review.

No work will proceed or materials ordered until appropriate construction charges, deposits, documentations or contracts have been received. **The Electrical Safety Authority (ESA) will govern any electrical service requirement not mentioned in this section on Residential Services**

3.1.1 OVERHEAD SERVICES FOR RESIDENTIAL CUSTOMERS:

New overhead services will only be allowed with special permission from Hydro.

All overhead services will have a minimum rating of 100A up to and including the meter base.

The Customer shall provide entrance equipment including provisions for the attachment of the supply conductors. The Ontario Electrical Safety Code will govern rules and regulations concerning masts.

Services located further than 30m (100ft.) from the Hydro's overhead street circuit may require the Customer to construct a secondary pole line. This secondary pole line will be at the Customer's expense and subject to inspection by the Electrical Safety Authority (ESA).

Overhead Primary

Where Hydro deems an overhead primary pole line to be practical, the Customer shall install and maintain such a pole line in accordance to the Electrical Safety Code.

This primary pole line shall be guyed at opposite ends in such a manner to be considered self-supporting.

The first service pole or first point of support shall be double dead-end construction, according to Hydro specifications and shall not be more than 30 m (100ft.) from the main supply street circuit. To avoid conflict with guying, the neutral shall be continuous and tied in on a spool bolt or clevis.

The Customer shall leave sufficient wire coiled at the first point of support to reach the main supply street circuit with excess to accommodate proper dead-ending. Any wire too short will be replaced at the Customer's expense.
All primary pole lines will be insulated for 27.6 kV unless 44kV is required. All three phase primary services are to be 4-wire.
Pole class and sizes are as follows (min.):

- Single phase transformer pole, 12.2m (40 ft) Class 4
- Single or three phase pole line, 12.2m (40 ft) Class 4
- Three phase transformer pole, 13.7m (45ft) Class 4

Demarcation Point

See Section 3.9 Demarcation Points for more details.

Minimum Requirements

In addition to the requirements of the Ontario Electrical Safety Code (latest edition), the following conditions shall apply: A clevis type insulator is to be supplied and installed by the Customer. This point of attachment device must be located:

(a) Not less than 4.5 metres (15 feet) nor greater than 5.5 meters (18 feet) above grade (to facilitate proper ladder handling techniques).

(b) Between 150 millimetres and 300 millimetres (6-12 inches) below the service head.

A large, 4-jaw meter socket of an approved manufacturer shall be provided. Certain areas will require a 5-jaw socket as determined by Hydro.

Services Over Swimming Pools

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

Where a new swimming pool is to be installed it will be necessary to relocate, at the property Customer's expense, any electrical conductors located directly over the proposed pool location. Where overhead service conductors are in place over an existing swimming pool, Hydro will provide up to 30 metres of overhead service conductors, at no charge, to allow rerouting of the service. The property owner will pay any other costs.

3.1.2. UNDERGROUND SERVICES FOR RESIDENTIAL CUSTOMERS

All new services from Hydro's main line will be installed below ground according to hydro specifications at the cost of the Customer, less the Standard Allowance for an overhead service. Any exceptions of the above will be at the discretion of Hydro

All underground service wires whether supplied from Hydro's Main Line or from a private pole line, will be installed and supplied by the Customer at their expense.

The trench route must be approved by hydro and the Customer is to follow the route indicated on the underground drawing supplied by hydro. Any deviation from this route must be pre-approved. The Customer will be responsible for all costs associated with the design and inspection, and all additional re-design and subsequent re-inspection costs due to changes or deviations initiated by the Customer or its agents.

Where the Corporation's main line is on the opposite side of the road allowance, the Customer shall be responsible for the cost of the road crossing.

The Customer will assure the provisions for the service entrance and meter meets the approval of Hydro.

It is the responsibility of the Customer or their contractor to obtain clearances from all of the utility companies (including Hydro) before digging.

It is the responsibility of the Customer to contact Hydro to inspect each trench prior to the installation of service cables.

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

Underground Secondary

All underground secondary services will be a minimum rating of 200 Amp, up to and including the meter base.

The Customer shall install secondary conductors in a 75 mm (3 in) PVC Type 11 duct from the main line to the delivery point according to Hydro specifications.

The Customer will supply all adapters, scepter pipe, weather heads and clips required to take the secondary wires up the pole to the connection point at the main line.

Concrete encased duct bank complete with rebar where duct crosses traveled roadway.

Meter base terminations will be supplied and installed by the Customer.

Hydro will maintain the service after energization.

Underground Primary

The Customer shall supply, install and maintain the following according to Hydro specifications:

- The transformer base complete with grounding.
- Suitable access for Hydro vehicles to the metering equipment and transformer. Where necessary this should include a suitable unobstructed paved or graveled surface.

- Concrete encased duct bank complete with rebar where duct crosses traveled roadway and first 3m at the termination pole with the exception of underground 44kV where the entire trench must be concrete encased complete with rebar.
- Cable, #1/0 AWG, compact Cu., (or #2/0 Al.) TR-XLPEI, 100% CN, PVCJ, 28kV.

Demarcation Point

See Section 3.9 Demarcation Points for more details.

Underground services which are installed or inherited by the Hydro, shall be maintained by Hydro. Site restoration by Hydro will be confined to the immediate area of the repair work and will include only the replacement of similar surface materials within the immediate area.

Sheds, patios and any type of building in the immediate area where repair work is required will be disassembled or moved by the Customer at their expense.

If the Customer damages secondary conductors owned by Hydro, the Customer will be responsible for all costs involved to execute repairs.

Where an existing service requires what is considered more than one normal repair, Hydro may require the Customer to replace the service at their expense.

The trench for all underground services is to be no less that 1m (3ft.) and no more than 1.3m (4ft.) in depth.

Due to secondary line loses; the maximum allowable length of secondary service (including pole riser distance) will be 75 meters (250 ft) for 4/0 aluminum. For longer distances, contact the Engineering Department.

If the secondary cables are supplied from a private pole line, the termination shall be done by the Customer at their own expense. If the secondary cables are supplied from Hydro's Main line, the termination at the supply point shall be done by Hydro at the expense of the Customer.

The Customer will supply, install and maintain a rigidly mounted 50mm (2 in) minimum dia. I.P.S., C.S.A approved service entrance conduit, termination 600mm (2 ft.) below grade complete with conduit bushing. The Customer is also responsible for all meter base connections.

3.2 General Service (less than 50kW)

Include all items that apply specifically to general service Customers not covered under the other sections, and broken down into:

New overhead services will only be allowed with special permission from Hydro.

The customer shall obtain a technical service location layout from the Hydro Engineering Department prior to any construction to avoid delay in energizing the service.

The Customer shall supply the following to Hydro well in advance of installation commencement:

- Required in-service date
- Proposed Service Entrance equipment's Rated Capacity (Amperes) and Voltage rating and metering requirements
- 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 site plan indicating the proposed location of the service entrance equipment with respect to public rights-of-way and lot lines.

The Customer shall construct or install all civil infrastructure (including but not limited to poles, UG conduits, transformer pad) on private property. All civil infrastructures are to be in accordance with Hydro current standards, practices, specifications and this Conditions of Service and are subject to Hydro inspection and acceptance.

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

In addition 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 Hydro construction activities. If a Customer requests special construction beyond the normal Hydro standard installation specifications, the Customer shall pay the additional cost, including engineering and administration fees.

It is the responsibility of the Customer or their Contractor to ensure that cable terminations shall be installed as per manufacturer's recommendations. Only personnel qualified and experienced in this type of work shall make cable connections and terminations. Upon request, proof of the qualifications of personnel making terminations shall be submitted to HHH for review.

3.2 General Service (less than 50kW)

The Customer's electrical room must be located to provide safe access from the outside or main hallway, and not from an adjoining room, so that it is readily accessible to Hydro employees and agents at all hours to permit meter reading and to maintain electric supply. This room must be locked. The Customer shall install a pad bolt with mortise. Halton Hills Hydro Inc. shall provide a secure arrangement so that Hydro padlock can be installed as well as the Customer's lock.
The electrical room shall not be used for storage or contain equipment foreign to the electrical installation within the area designated as safe working space. All stairways leading to electrical rooms above or below grade shall have a handrail on at least one side as per the Ontario Building Code and shall be located indoors.

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

The Customer will be supplied via one service entrance and one service voltage only. The allowable utilization voltages are:

- 120/240 volt, 1 phase, 3-wire
- 120/208 volt, 3 phase, 4-wire (up to 300kva)
- 347/600 volt, 3 phase, 4-wire

All new services from Hydro main line will be installed below ground according to Hydro specifications, at the cost of the Customer. Any exceptions of the above will be at the discretion of Hydro.

3.2 General Service (less than 50kW)

Underground Service Requirements

The Customer shall construct or install all civil infrastructure (including but not limited to poles, UG conduits, transformer pad) on private property that is deemed required by Hydro. All civil infrastructures are to be in accordance with Hydro current standards, practices, specifications and this Conditions of Service and are subject to Hydro inspection/acceptance. The Customer is responsible to maintain all its structural and mechanical facilities on private property in a safe condition satisfactory to Hydro

Each trench route must be approved by Hydro. Any deviation from this route must also be approved by Hydro The Customer will be responsible for Hydro 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 Customer or his/her contractor to obtain clearances from all of the utility companies (including Hydro) before digging.

It is the responsibility of the Customer to contact Hydro to inspect each trench prior to the installation of cables.

If the distance from Hydro's main line to the service entrance is more than 75m (246 ft) Hydro may require the service be designed and installed for distribution voltage

If the Customer requests an established underground or overhead service to be relocated due to construction of a building or other reason, the Customer will bear the full cost of relocation of the service.

Underground Secondary

The Customer shall install secondary conductors in a 75 mm (3 in) PVC Type II duct from the main line to the delivery point according to Halton Hills Hydro Inc. specifications.
The Customer will supply all adapters, scepter pipe, weather-heads and clips required to take the secondary wires up the pole to the connection point at the main line.
Concrete encased duct bank complete with rebar where duct crosses traveled roadway.

Underground Primary

The Customer shall supply, install and maintain the following according to Hydro specifications:

- The transformer base complete with grounding.
- Suitable access for Halton Hills Hydro Inc. vehicles to the metering equipment and transformer. Where necessary this should include a suitable unobstructed paved or graveled surface.
- Concrete encased duct bank complete with rebar where duct crosses traveled roadway and first 3m at termination pole with the exception of underground 44kV where the entire trench must be concrete encased complete with rebar.
- Cable #1/0 AWG, compact Cu., (or 2/0 Al,) TR-XLPEI, 100% CN, PVCJ, 28kV..

3.2 General Service (less than 50kW)

Where Halton Hills Hydro Inc. deems an overhead primary supply to be practical; the Customer shall install and maintain such a pole line in accordance to the Electrical Safety Code. This primary pole line shall be guyed at opposite ends in such a manner to be considered self-supporting.

The first service pole or first point of support shall be double dead-end construction according to Hydro specifications and shall not be more than 30 m (98.5 ft) from the main supply street circuit. To avoid conflict with guying, the neutral shall be continuous and tied in on a spool bolt or clevis.

The Customer shall leave sufficient wire coiled at the first point of support to reach the main supply street circuit with excess to accommodate proper dead-ending. Any wire too short will be replaced at the Customer's expense.

All primary pole lines will be insulated for 27.6 kV unless 44kv is required. All three phase primary services are to be 4-wire.

Pole class and sizes are as follows:

- Single phase transformer pole, 12.2 m (40 ft) Class 4
- Three phase transformer pole, 13.7 m (45 ft) Class 4
- Single or three phase pole line, 12.2m (40 ft) Class 4

Temporary Services (other than Residential)

A temporary service is a normally metered service provided for construction purposes or special events. Temporary services can be supplied overhead or underground. Prior to any temporary service being installed, the Customer must contact the Engineering Department to arrange for a layout of the installation. The Customer will be responsible for all associated costs for the installation and removal of equipment required for a temporary service to Hydro point of supply. Temporary services may be provided for a period of no more than 12 months. Temporary services must be renewed thereafter if an extension is required and the equipment for such temporary service must be re-inspected at the end of the 12-month period.

Subject to the requirements of Halton Hills Hydro Inc., supply will be connected after receipt of a 'Connection Authorization' from the Electrical Safety Authority, a signed contract and payment of any associated costs.

Demarcation Point

See Section 3.9 Demarcation Points for more details.

3.3 General Service (Above 50 kW)

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

All new services from Hydro main line will be installed below ground according to Hydro specifications, at the cost of the Customer. Any exceptions of the above will be at the discretion of Hydro. New overhead services will only be allowed with special permission from Hydro.

All non-residential Customers with an average peak demand greater than 50 kW over the past twelve months are to be classified as General Services above 50 kW. For new Customers without prior billing history, the peak demand will be based on 90% of the proposed capacity or installed transformer.

The customer shall obtain a technical service location layout from the Hydro Engineering Department prior to any construction to avoid delay in energizing the service.

The Customer shall supply the following to Halton Hills Hydro Inc. well in advance of installation commencement:

- 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 that demand a high consumption of electrical energy

- Survey plan and site plan indicating the proposed location of the service entrance equipment with respect to public rights-of-way and lot lines.
- For General Service Class Customers (above 50 kW demand), electrical, architectural and/or mechanical drawings are required by Hydro

The Customer shall construct or install all civil infrastructure (including but not limited to poles, UG conduits, transformer pad) on private property. All civil infrastructures are to be in accordance with Hydro current standards, practices, specifications and this Conditions of Service and are subject to Hydro's inspection and acceptance

It is the responsibility of the Customer or his/her contractor to obtain clearances **from all of the utility companies (including Hydro) before digging.** Halton Hills Hydro Inc. will undertake

the necessary programs to maintain and enhance its distribution plant at its expense. In the event that services or facilities to a Customer need to be restored as a result of these construction or maintenance activities by Halton Hills Hydro Inc., they will be restored to an equivalent condition.

In addition Halton Hills Hydro Inc. 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 Hydro construction activities. If a Customer requests special construction beyond the normal Halton Hills Hydro Inc. standard installation in accordance with the program, the Customer shall pay the additional cost, including engineering and administration fees.

The electrical room must be located to provide safe access from the outside or main hallway, and not from an adjoining room, so that it is readily accessible to Hydro employees and agents at all hours to permit meter reading and to maintain electric supply. This room must be locked. The Customer shall install a pad bolt with mortise.

Halton Hills Hydro Inc. shall provide a secure arrangement so that Hydro padlock can be installed as well as the Customer's lock.

The electrical room shall not be used for storage or contain equipment foreign to the electrical installation within the area designated as safe working space.

All stairways leading to electrical rooms above or below grade shall have a handrail on at least one side as per the Ontario Building Code and shall be located indoors.

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

The Customer will be supplied via one service entrance and one service voltage only. The allowable utilization voltages are:

- 120/240 volt, 1 phase, 3-wire
- 120/208 volt, 3 phase, 4-wire
- 347/600 volt, 3 phase, 4-wire

It is the responsibility of the Customer or their Contractor to ensure that cable terminations shall be installed as per manufacturer’s recommendations. Only personnel qualified and experienced in this type of work shall make cable connections and terminations. Upon request, proof of the qualifications of personnel making terminations shall be submitted to HHH for review.

Demarcation Point

See Section 3.9 Demarcation Points for more details.

Underground Service Requirements

The Customer shall construct or install all civil infrastructure (including but not limited to poles, UG conduits, transformer pad) on private property, that is deemed required by Hydro, all civil infrastructures are to be in accordance with Hydro current standards, practices, specifications and this Conditions of Service and are subject to Hydro inspection/acceptance. The Customer is responsible to maintain all its structural and mechanical facilities on private property in a safe condition satisfactory to Hydro

The trench route and any deviation from this trench route must also be approved by Hydro.

The Customer will be responsible for Hydro 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 Customer or his/her contractor to obtain clearances from all of the utility companies (including the local Distribution company) before digging.

It is the responsibility of the Customer to contact Hydro to inspect each trench prior to the installation of cables.

If the distance from Hydro main line to the service entrance is more than 55m (180 ft), Hydro may require that the service be designed and installed for distribution voltage.

If the Customer requests an established underground or overhead service to be relocated due to construction of a building or other reason, the Customer will bear the full cost of relocation of the service.

The Customer will be supplied via one service entrance and one service voltage only.

Underground Secondary

The Customer shall install secondary conductors in a 100 mm (4 in) PVC Type II duct from the main line to the delivery point according to Halton Hills Hydro Inc. specifications.
The Customer will supply all adapters, scepter pipe, weather heads and clips required to take the secondary wires up the pole to the connection point at the main line.
Concrete encased duct bank complete with rebar where duct crosses traveled roadway.

Underground Primary

The Customer shall supply, install and maintain the following according to Halton Hills Hydro Inc. specifications:

- The transformer pad and vault complete with grounding.
- Suitable access for hydro vehicles to the metering equipment and transformer. Where necessary this should include a suitable unobstructed paved or graveled surface.
- Concrete encased duct bank complete with rebar where duct crosses traveled roadway and first 3m at termination pole with the exception of underground 44kV where the entire trench must be concrete encased complete with rebar.

Overhead Primary

Where Halton Hills Hydro Inc. deems an overhead primary supply to be practical; the Customer shall install and maintain such a pole line in accordance to the Electrical Safety Code. This primary pole line shall be guyed at opposite ends in such a manner to be considered self-supporting. The first service pole or first point of support shall be double dead-end construction, according to Halton Hills Hydro Inc. specifications and shall not be more than 30 m (98.5 ft) from the main supply street circuit. To avoid conflict with guying, the neutral shall be continuous and tied in on a spool bolt or clevis.

The Customer shall leave sufficient wire coiled at the first point of support to reach the main supply street circuit with excess to accommodate proper dead-ending. Any wire too short will be replaced at the Customer's expense. All primary pole lines will be insulated for 27.6 kV unless 44kV is required. All primary services are to be 4-wire.

Pole class and sizes are as follows:

- Single-phase transformer pole 12.2 m (40 ft) Class 4
- Three- phase transformer pole 13.7 m (45 ft) Class 4
- Single or three-phase pole line 12.2 m (40 ft) Class 4

Temporary Services (other than Residential)

A temporary service is a normally metered service provided for construction purposes or special events. Temporary services can be supplied overhead or underground. Prior to any temporary service being installed, the Customer must contact the Engineering Department to arrange for a layout of the installation. The Customer will be responsible for all associated costs for the installation and removal of equipment required for a temporary service to Hydro point of supply. Temporary services may be provided for a period of no more than 12 months. Temporary services must be renewed thereafter if an extension is required and the equipment for such temporary service must be re-inspected at the end of the 12-month period.

Subject to the requirements of Halton Hills Hydro Inc., supply will be connected after receipt of a 'Connection Authorization' from the Electrical Safety Authority, a signed contract and payment of any associated costs.

Private Substations

Customers will be required to supply and install their own transformation and associated hardware when the following conditions exist:

- The Customer requires over 300 kVA of transformation from the 4160 volt or 8320 volt system, or
- The Customer requires over 3 MVA of transformation from the 27,600-volt system.

In the event that the customer requires greater than 300kVA of transformation in areas where 4160V or 8320V exist, the customer shall be required to build a private substation supplied from Hydro's 44kV system voltage unless otherwise advised by Hydro's Engineering Department.

Transformer and substation location are subject to Hydro approval as well as the Electrical Safety Authority inspection.
Customer must ensure compliance with all requirements for Site Plan Approval by the Town of Halton Hills. Hydro will make final connections at the termination pole at the expense of the Customer.

Depending on the area and the location of the feed to a private substation, the Customer will be required to install at their expense an underground feed as per Hydro specifications.
It is the Customer's responsibility to contact Hydro Engineering Department prior to the commencement of any work on a private substation to schedule any approvals, costs, specifications and requirements.

Technical Information

Where project drawings are required for approval, items under Hydro jurisdiction, the Customer or its authorized representative must ensure that the proposed drawings are in compliance with the standards of the Hydro. Approval of project drawings shall not relieve the Customer of responsibility in respect of full compliance with Hydro standards. In all cases, **two** copies of all relevant drawings must be submitted Hydro.

Where the Customer requires an approved copy to be returned, **three** copies of all plans must be submitted.

Site & Grading Plans

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

Mechanical Servicing Plan

Mechanical Servicing Plans shall show the location of all services proposed and/or existing such as water, gas, storm and sanitary sewers, telephone, etc.
Floor Plan

Floor Plans shall show the service location, other services location, driveway, parking and indicate the total gross floor area of the building.

Duct Bank Location

The Customer shall show the preferred routing of the underground duct bank on the property. This is subject to approval by Hydro.
Duct bank shall be Concrete encased duct bank complete with rebar where duct crosses traveled roadway and first 3m at termination pole with the exception of underground 44kV where the entire trench must be concrete encased complete with rebar.
Secondary duct bank shall be concrete encased duct bank complete with rebar where duct crosses traveled roadway.

Transformer Location

The Customer shall indicate the preferred location on the property for the high voltage transformation. This is subject to approval by Hydro. Transformation will be pad mounted

depending on the project load requirements. Indicate preferred location in the building of the meter room and the main switchboard.

Single Line Diagram

The Customer shall show the main service entrance switch capacity, the required supply voltage, and the number and capacity of all sub-services showing provision for metering facilities, as well as the connected load breakdown for lighting, heating, ventilation, air conditioning et cetera. Also, indicate the estimated initial kilowatt demand and ultimate maximum demands. Provide protection equipment information where coordination is required between Hydro and Customer owned equipment.

Substation Information

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

- All details of the transformer, including kVA capacity, short circuit rating, primary and secondary voltages, impedance and cooling details.
- A site plan of the transformer station showing the equipment layout, proposed primary connections, grounding and fence details, coordination study in electronic format, where applicable.

3.4 General Service (Above 1000 kW)

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

New overhead services will only be allowed with special permission from Hydro.

The customer shall obtain a technical service location layout from the Hydro Engineering Department prior to any construction to avoid delay in energizing the service.

All non-residential Customers with an average peak demand of 1000 kW or higher over the past twelve months are to be classified as Customers over 1000 kW. For new Customers without prior billing history, the peak demand will be based on 90% of the installed transformer.

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 Hydro's requirements for high voltage installations. Hydro will provide planning details upon application for service. Customer owned substations are a collection of transformers and switchgear located in a suitable room or enclosure owned and maintained by the Customer, and supplied at primary voltage: i.e. the Supply Voltage is greater than 750 volts.

It is the responsibility of the Customer or their Contractor to ensure that cable terminations shall be installed as per manufacturer's recommendations. Only personnel qualified and experienced in this type of work shall make cable connections and terminations. Upon request, proof of the qualifications of personnel making terminations shall be submitted to HHH for review.

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

Demarcation Point

See Section 3.9 Demarcation Points for more details.

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).

Customers of Halton Hills Hydro may choose to supply some or all of their electrical energy needs through the installation of an on-site, customer-owned generation facility. Halton Hills Hydro owns and operates the local distribution system composed of numerous primary voltages and 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 that requests connection to Halton Hills Hydro's distribution system will be referred to as an "embedded generator" or "Generator". This section will provide prospective embedded generators with a brief outline of technical requirements for connecting embedded generation of 10MVA or less. Generation greater than 10MVA will be reviewed on a case-by-case basis. 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. This section also ensures that Halton Hills Hydro and the embedded Generator comply with the requirements of the Ontario Energy Board Distribution System Code, Halton Hills Hydro's Conditions of Service, and the Ontario Electrical Safety Code, Section 84. The embedded Generator may also need to consult the IMO and Hydro One for requirements as applicable.

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

When an embedded generator is connected to the Hydro's distribution system, the Customer shall provide an interface protection that minimizes the severity and extent of disturbances to that distribution system and the impact on other Customers. The interface protection shall be capable of automatically isolating the generator(s) from Hydro's distribution system for the following situations:

- Internal faults within the generator.
- External faults in Hydro's distribution system.
- Certain abnormal system conditions, such as over/under voltage, over/under frequency

Customer shall disconnect the embedded Generator from Hydro' distribution system when:

a.) A remote trip or transfer trip is included in the interface protection, and

b.) The Customer effects changes in the normal feeder arrangements other than those agreed upon in the operating agreement between the Hydro and the Customer.

Embedded Generators will be required to adhere to the requirements and processes as outlines in Halton Hills Hydro's "Guidelines for Applicants Connecting Distributed Generation". The Guidelines can be obtained by contacting Halton Hills Hydro or available at www.haltonhillshydro.com. Failure to meet with Hydro's, ESA, or other applicable governing bodies requirements can delay the process of connection and will result in no connection being made until all parties requirements are satisfied and confirmation has been received by Hydro.

Neither this section nor our "Guidelines" are intended to take the place of a detailed final design and inspections.

3.6 Embedded Market Participant

A criterion 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 IMO-administered markets or cause or permit electricity to be conveyed into, through or out of IMO-controlled grid unless that person has been authorized by the IMO to do so".

All Embedded Market Participants, within the service jurisdiction of Hydro, once approved by the IMO are required to inform Hydro of their approved status in writing, at least 30 days prior to their participation in the Ontario Electricity market.

3.7 Embedded Distributor

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

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

3.8 Unmetered Connections

This section will include all terms and conditions applicable to unmetered connection such as but not limited to the following; 3.8.1 Street Lighting 3.8.2 Traffic Signals 3.8.3 Bus Shelters

3.8.1 Street Lighting

All services supplied to street lighting equipment owned by or operated for the Municipality, the Region or the Province of Ontario shall be classified as Street Lighting Service. For rate structure details refer to Hydro Schedule of Rates. Street Lighting plant, facilities, or equipment owned by the Customer are subject to the Electrical Safety Authority (ESA) requirements and Halton Hills Hydro specifications.

3.8.2 Traffic signals and Pedestrian X-Walk Signals/Beacons

Traffic Signals and Pedestrian X-Walk signals/beacons shall have a rate structure equal to General Service (< 50 kW) Class Customers. Each Traffic Signal and Pedestrian X-Walk/Beacon location is reviewed individually and is connected to Hydro low voltage distribution system.

Electrical Safety Authority (ESA) "Authorization to Connect" is required prior to connecting the service

3.8.3 Telephone booths, Signs (< 5kW) and Miscellaneous Unmetered Loads (< 5kW)

The above service types shall have a rate structure as General Service (< 50kW) Class Customers and have the same terms and conditions as outlined in the section above.

3.8.4 Decorative Lighting and Tree Lighting Services

1. Decorative or Tree Lighting if connected to the municipal or the Province of Ontario Street Lighting system will be treated as a Street Lighting Class of service.

2. Decorative or Tree Lighting connected to Hydro distribution System shall have a rate structure as General Service (<50 kW) Class Customers. Refer to the Schedule of Rates.

3. If the service is metered, the following outlines the Operational Demarcation point:
   - For Overhead - the top of the Customer's service standpipe/mast.
   - For Underground – Up to the property line of each lot.

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 this 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.

3.9 Demarcation Point

The demarcation point for all overhead secondary services, residential, commercial, and industrial, shall be the customer's service mast on their building.

On services within 30m (100 ft) of the main road circuit that do not require a secondary pole line, Hydro will be responsible up to and including the secondary connections at the mast.

Any secondary services over 30 m (100 ft) were the Customer is required to provide a secondary pole line, the point of demarcation will be the connections to the overhead secondary street circuit.

The demarcation point for all secondary underground residential services supplied from the Corporation's main line will be up to the line side of the meter base.

Where Hydro's Distribution System is overhead, and the service is supplied via overhead primary conductors connected from the distribution system, the point of demarcation will be the connections to the overhead street circuit.

Where Hydro's Distribution System is overhead, and the service to an industrial/ commercial building is supplied via underground secondary connected from the distribution system directly to the meter base, the point of demarcation will be the connections to the overhead street circuit.

Where Hydro's Distribution System is overhead and the service is supplied via underground primary connected from the distribution system directly to a padmounted transformer, the point of demarcation will be the connections to the overhead street circuit.

Where Hydro's Distribution System is underground, the point of demarcation will be the connections to the switchgear.

"CUSTOMER" means a person, corporation or representative of the Customer from whom the Corporation has accepted a contract;.

"DELIVERY POINT" means the point at which circuits cross over from the public Right-Of-Way, or Hydro's easements to private property;

"GENERAL SERVICE CUSTOMER" means a Customer who operates a commercial or industrial business;

"HYDRO" means Halton Hills Hydro Inc., or their authorized Representative;

"MAIN LINE" means Hydro Main Circuits on public Right-of-Way or easements from which service wires are tapped;

"OPERATIONAL DEMARCATION POINT" means the physical location on a Customer's premises at which a Distributor's responsibility for operational control of a Distribution System ends;

"RESIDENTIAL CUSTOMER" means a Customer whose electricity requirements are for normal domestic or household purposes;

"SERVICE ENTRANCE" means the point and equipment at which the service wires enter the Customer's premises;

"SERVICE LOCATION" means the location where the service wires enter private property. Location shall be approved by the Engineering Department, before construction:

"SERVICE WIRES" mean the conductors from the Hydro's Main circuits on public streets or Hydro's easements to the Customer's premises

"EMBEDDED GENERATOR" or "EMBEDDED GENERATION FACILITY"
means a generator whose generation facility is not directly connected to the IMO-controlled grid but instead is connected to a distribution system (DSC);

"RETAILER" means a person who retails electricity;

"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);

"IMO" means the Independent Electricity Market Operator established under the Electricity Act;

"ONTARIO ENERGY BOARD ACT" means the Ontario Energy Board Act, 1998, S.O. 1998, C.15, Schedule B;

"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;

"**DISTRIBUTION SYSTEM"** means a system for distributing electricity, and includes any structures, equipment or other things used for that purpose. A distribution system is comprised of the main system capable of distributing electricity to many Customers and the connection assets used to connect a Customer to the main distribution system

"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

"DISTRIBUTOR" means a person who owns or operates a distribution system

"TRANSMITTER" means a person who owns or operates a transmission system

"TRANSMISSION SYSTEM" means a system for transmitting electricity, and includes any structures, equipment or other things used for that purpose

Section 5 - APPENDICES

The following are samples of documents that could be appended to the Distributor's Conditions of Service document:
1. Economic Evaluation Model for Distribution System Expansion
2. Sample Operations Agreement between the distributor and an embedded generator and Standard Connection Agreements.

TABLE 'A'
Metering Required

TYPE				
SUPPLY VOLTAGE	MAIN SWITCH AMPERES	DESCRIPTION	MAXIMUM kVA ALLOWED	
120/240 120/240 120/240	100 200 400	1-PHASE 3-WIRE 1-PHASE 3-WIRE 1-PHASE 3-WIRE	19 38 77	Manufacturer's "Oversized" Socket type meter base with 4-Jaws (**below*) Manufacturer's "Oversized" Socket type meter base with 4-Jaws (**below*) Manufacturer's 400A meter base (**below*) **Meter bases are specified in Halton Hills Hydro's Approved Materials List.*
120/208	200	3-PHASE 4-WIRE	58	Manufacturer's "Oversized" Combination Socket type meter base with 7- Jaws
120/208 120/208 120/208 120/208*	400 600 800 1000	3-PHASE 4-WIRE 3-PHASE 4-WIRE 3-PHASE 4-WIRE 3-PHASE 4-WIRE	115 173 231 288	Meter Cabinet 1220 x 1220 x 300 mm (48" x 48" x 12") Meter Cabinet 1220 x 1220 x 300 mm (48" x 48" x 12") Meter Cabinet 1220 x 1220 x 300 mm (48" x 48" x 12") Meter Cabinet 1220 x 1220 x 300 mm (48" x 48" x 12")
347/600	200	3-PHASE 4-WIRE	166	Manufacturer's "Oversized" Socket type meter base with 7- Jaws
347/600	400	3-PHASE 4-WIRE	333	Meter Cabinet 1220 x 1220 x 300 mm (48" x 48" x 12")
INSTRUMENT TRANSFORMERS INSTALLED IN A SWITCH GEAR CUBICLE		3-PHASE 4-WIRE	500 kVA AND OVER	Meter Cabinet 1220 x 1220 x 300 mm (32" x 32" x 12") The instrument transformer cabinet must be connected to the Meter cabinet with a 38mm (1.5") conduit no longer than 9m (30') complete with fish rope

NOTE:

For services other than those in table 'A' the Customer must get authorization from the Engineering Department. In all situations early contact with the Engineering Department is essential to receiving connection when desired.

Interval metering for services less than 200kW is optional and shall be paid for by the customer. Interval metering is mandatory for services 200kW and above and will be paid for by Hydro. A dedicated telephone line and duct is required in which the telephone line will connect to an interval meter at the customers expense.

A switchgear manufacturer will not build the switchgear until they have the instrument transformers as specified by Halton Hills Hydro Inc. It is therefore essential the Customer contact the Engineering Department for co-ordination of delivering the Instrument transformers to the Manufacturer. Instrument transformers located in a 1220 x 1220 x 300 mm meter cabinet will be installed by Halton Hills Hydro personnel.

Any metering requiring CT's (Current Transformers) shall have a 38mm (1.5") conduit no longer than 9m (30') complete with fish rope.

TABLE 'B'
HIGH DIRECT VOLTAGE FIELD TESTS

SYSTEM VOLTAGE (kV rms) phase to phase	SYSTEM BIL (kV)	ACCEPTANCE TEST VOLTAGE (kV dc)	MAINTENANCE TEST VOLTAGE (kV dc)
4.16 kV	75	**28**	23
8.32 kV	**95**	**36**	**29**
27.6 kV	**170**	**85**	**68**
44 kV	**250**	**125**	**95**

NOTES:

ACCEPTANCE TEST VOLTAGE DURATION IS NORMALLY 15 MIN. THE MAINTENANCE TEST VOLTAGE DURATION SHALL BE NOT LESS THAN 5, OR MORE THAN 15 MINUTES.

WHEN OLDER CABLES, OR OTHER EQUIPMENT SUCH AS TRANSFORMERS, SWITCHGEAR, MOTORS ETC., ARE CONNECTED TO THE CABLE TO BE TESTED, LOWER VOLTAGES THAN THOSE LISTED IN TABLE B MAY BE NECESSARY.

*MEASUREMENTS ARE IN ACCORDANCE WITH IEEE STD. 400-1991

TABLE 'C'
MAXIMUM LOSSES FOR DISTRIBUTION TRANSFORMERS
(CSA Standard C802-93, clause 4.2)

SINGLE PHASE (Min. LV 120/240) * **THREE PHASE (Min. LV 208Y/120)**

KVA Rating	Maximum Loss, W		KVA Rating	Maximum loss, W	
	NL	L		NL	L
50	**170**	**390**	**150**	**510**	**1300**
75	**210**	**570**	**225**	**710**	**2070**
100	**260**	**810**	**300**	**820**	**2190**

TABLE 'D'
MAXIMUM LOSSES FOR POWER TRANSFORMERS
501 kVA – 3,000 kVA, HIGH VOLTAGE 44kV AND BELOW
(See Clause 4.1.2 C802.3-01)

kVA	Imp. Range, %		Max. loss, W	
(Min LV 600)	Min.	Max.	NL	L
501 – 750	5	7.5	2,200	5,900
751 – 1000	5	7.5	2,700	7,200
1001 – 1500	5	7.5	3,500	9,800
1501 – 2000	5	7.5	4,200	12,200
2001 – 2500	5	7.5	5,000	14,100
2501 – 3000	5	7.5	5,600	16,200