# **CONDITIONS OF SERVICE**

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### SECTION 1 INTRODUCTION

### 1.1 Identification of Distributor and Territory

The Distributor is a corporation, incorporated under the laws of the Province of Ontario to distribute electricity.

The Distributor is licensed by the Ontario Energy Board "OEB" to supply electricity to Customers as described in the Transitional Distribution License and thereafter by the Distribution License issued to the Distributor by the OEB. Additionally there are requirements imposed on the Distributor by the various codes referred to in the License and by the <u>Electricity Act</u> and the <u>Ontario Energy Board Act</u>.

The Distributor is limited to operate distribution facilities within their Licensed Territory as defined in the Distribution License.

#### 1.1.1 General

Nothing contained in this document or in any contract for the supply of electricity by the Distributor shall prejudice or affect any rights, privileges, or powers vested in the Distributor by law under any Act of the Legislature of Ontario or the Parliament of Canada, or any regulations thereunder.

The Distributor will normally provide one electrical service to each customer location at a nominal service voltage.

Modifications to an existing service must comply with the requirements of the standards in effect at the time of the modifications.

The customer or their authorized representative must make application for new or upgraded electric services and temporary power services.

The customer or their representative shall consult with the Distributor concerning the availability of supply, the voltage of supply, service location, metering and any other details. These requirements are separate from and in addition to those of the Electrical Inspection Authority. The Distributor will confirm, in writing, the Characteristics of Electric Supply available at a specific site.

The customer is required to provide the Distributor sufficient lead-time in order to ensure:

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

If special equipment is required or equipment delivery problems occur then longer lead times may be necessary. The customer will be notified of any extended lead times.

Customers will be required to pay the cost of repair or replacement of the Distributors' equipment that has been damaged through the customers' action or neglect.

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The supply of electricity is conditional upon the Distributor being permitted and able to provide such a supply, obtaining the necessary apparatus and material, and constructing works to provide the service. Should the Distributor not be permitted to supply or not be able to do so, it is under no responsibility to the customer whatsoever.

The Customer shall not build, plant or maintain or cause to be built, planted or maintained any structure, tree, shrub or landscaping that would or could obstruct the running of distribution lines, endanger the equipment of the Distributor, interfere with the proper and safe operation of the Distributor's facilities or adversely affect compliance with any applicable legislation in the sole opinion of the Distributor.

Prior to commencing any service work, the customer must consult with the Distributor to ensure compliance with current requirements.

The Distributor, at the expense of the Owner, reserves the right to provide an Inspector who will be on duty for the duration of the work, and the Contractor shall supply him such accommodations as he may require. The Inspector shall have the authority to stop work at any time he feels the Contractor is not proceeding in accordance with these "conditions of service". Work shall not recommence until the Distributor has been notified and the Inspector is present at the site.

Customers may be required to pay Capital Contributions for the addition of new electrical services in accordance to calculations on overall system cost impact.

### 1.2 Related Codes and Governing Laws

The Distributor is limited in its scope of operation by the:

- 1. Electricity Act, 1998 http://www.e-laws.gov.on.ca/html/statutes/english/elaws\_statutes\_98e15\_e.htm
- 2. Ontario Energy Board Act, 1998 http://www.e-laws.gov.on.ca/html/statutes/english/elaws\_statutes\_98015\_e.htm
- 3. Distribution Licence Licence Numbers
- 4. Affiliate Relationships Code <a href="http://www.oeb.gov.on.ca/documents/affiliatecode\_amendedcode.112403.pdf">http://www.oeb.gov.on.ca/documents/affiliatecode\_amendedcode.112403.pdf</a>
- 5. Distribution System Code http://www.oeb.gov.on.ca/documents/cases/EB-2005-0488/dsccode\_20070627.pdf
- 6. Retail Settlements Code http://www.oeb.gov.on.ca/documents/cases/RP-1999-0032/code 231104.pdf
- 7. Standard Service Supply Code http://www.oeb.gov.on.ca/documents/cases/EB-2004-0205/sssc/rpp\_sssc\_revised\_20070627.pdf
- 8. *Transmission System Code* http://www.oeb.gov.on.ca/documents/cases/RP-2004-0220/tsc\_finalclean.pdf

In the event of a conflict between this document and the Distribution Licence or regulatory Codes issued by the OEB, or the <u>Electricity Act</u>, the provisions of the Act, the Distribution License and associated regulatory Codes shall prevail.

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When planning and designing for electricity service, Customers and their agents must refer to all applicable provincial and Canadian electrical codes, and all other applicable federal, provincial, and municipal laws, regulations, codes and by-laws to also ensure compliance with their requirements. The work shall be conducted in accordance with the Ontario Occupational Health and Safety Act, the Regulations for Construction Projects and the E&USA (or the OHSC Safety) rulebook.

### 1.3 Interpretations

In these Conditions, unless the context otherwise requires:

- Headings and underlining are for convenience only and do not affect the interpretation of these Rules.
- Words referring to the singular include the plural and vice versa.
- Words referring to a gender include any gender.

### 1.4 Amendments and Changes

The provisions of these Conditions of Service and any amendments made from time to time form part of any Contract made between the Distributor and any connected Customer, Generator or their agents.

In the event of changes to this Conditions of Service, a Public notice shall be made in the form of either a notice in the local newspaper, or a notice on the Distributors' Website.

The Customer is responsible for contacting the Distributor to ensure that the Customer has, or to obtain the current version of the Conditions of Service. The Distributor may charge a reasonable fee for providing the Customer with more than one copy of this document.

#### 1.5 Contact Information

The Distributor and its agents can be contacted during normal working hours (Monday to Friday between 8:30 and 4:30). Please refer to the Contact Listing in the Appendices for the phone number of the Local Distribution Company servicing your area.

## 1.6 Customer Rights

In those instances where the Customer will own their secondary or primary service, the Customer has the right to hire a Contractor to supply and install the service.

The customer has the right to demand identification from any person purporting to be an authorized agent or employee of the distributor.

A customer, who believes that he has suffered damages to his property or equipment as a result of negligence on the part of the Distributor, may submit a written claim for damages to the Distributor. The Distributor

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will investigate the claim and respond in writing within 10 business days of the receipt of the claim.

### 1.7 Distributor Rights

In those instances where the Customer has the authority to hire a Contractor to construct plant which will become part of the Distributors' system, the Distributor shall have the right to require the Contractor to submit proof of previous experience and satisfactory performance, and, the Distributor shall have the right to investigate such proof and approve the Contractor prior to the Owner awarding a contract for the work to the Contractor.

The Distributor shall have access to Customer property in accordance with section 40 of the *Electricity Act*, 1998.

### 1.8 Disputes

If, following good faith negotiations between a customer or other market participant and the Distributor, a resolution cannot be reached, the dispute may be submitted to a dispute resolution process.

Any dispute which shall arise between the Distributor and a customer(s) and other market participants subject to the terms of these Conditions of Service concerning the rights, duties or obligations of the Distributor or others subject to these Conditions of Service, shall be subject to the following dispute resolution procedure:

### Mediation

- Either party (the "Initiating Party") may invoke the dispute resolution procedure by sending a written notice to the other party (the "Respondent Party") describing the nature of the dispute and designating a representative of the Initiating Party with appropriate authority to be its representative in negotiations relating to the dispute. The responding Party shall, within five business days of the receipt of such notice, send a written notice to the Initiating Party, designating a representative of the Responding party with the appropriate authority to be its representative in negotiations relating to the dispute.
- Within ten business days of the receipt by the Initiating Party of the written notice of the Responding Party the designated representatives shall enter into good faith negotiations with a view to resolving the dispute. If the dispute is not resolved in thirty days of the commencement of such negotiations, or such longer period as may be agreed upon, either party may, by written notice to the other party, require that the parties be assisted in their negotiations by a mediator. The mediator shall be acceptable to both parties and have knowledge and experience in the matter under dispute, or professional qualifications, or experience in alternative dispute resolution, or both. The parties shall thereafter participate in mediation with the mediator through such process as the mediator, in consultation with the parties, may determine.
- None of the parties shall be deemed to be in default of any matter being mediated, until effective or after the date mediation fails.

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#### **Referral to Dispute Resolution**

Any dispute that is not resolved through mediation as described above shall be referred to the Ontario Energy Board for dispute resolution according to the following procedure:

- Upon the written demand of either of the parties, the dispute shall be referred to the Ontario Energy Board for resolution of the dispute.
- The Ontario Energy Board disputes resolution process shall immediately proceed to hear the matter
  or matters in dispute. The decision of the Ontario Energy Board disputes resolution process shall be
  made within 45 days of the selection, subject to any reasonable delay due to unforeseen
  circumstances.
- The decision of the Ontario Energy Board disputes resolution process shall be in writing and signed by the Ontario Energy Board staff. It shall be final and binding upon all the parties hereto as to any matter or matters so submitted to the Ontario Energy Board disputes resolution panel and shall observe and implement the terms and conditions thereof.
- The compensation and expenses of the Ontario Energy Board disputes resolution panel, (unless otherwise determined by the Board) shall be paid equally by the parties.

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### **SECTION 2 DISTRIBUTION ACTIVITIES (GENERAL)**

### 2.1 Connections and Expansions

This section includes information that is applicable to all customer classes of the distributor. Items that are applicable to only a specific customer class are covered in <u>Section 3</u>.

### 2.1.1 Building that Lies Along

As provided in **Section 28** of the <u>Electricity Act 1998</u> the Distributor has the Obligation to Connect any Building that 'lies along" its distribution system. A building 'lies along" a distribution line if it can be connected to the distributor distribution system without an expansion or enhancement, and meets the conditions listed in the <u>Distribution System Code</u>.

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

A Building that 'lies along" a distribution line may be refused connection to that line should the connection be bad or unsafe for the system.

### 2.1.2 Expansions / Offer to Connect

Under the terms of the <u>Distribution System Code</u> Section 3.1, a Distributor has the Obligation to make an Offer to Connect any Building that 'lies along" its distribution system yet may be excluded due to being outside of the Service Territory. The Offer to connect must be Fair and Reasonable and be based on the distributors' design standard. The Offer to Connect must also be made within a reasonable time from the request for connection.

The Distributor may require a customer to pay all or a part of the costs of electrical plant installed to supply only that customer. Such capital contributions will be calculated using the guidelines set out by the OEB in the <u>Distribution System Code</u>.

#### 2.1.3 Connection Denial

The <u>Distribution System Code</u> in section 3.1 sets outs the conditions for a Distributor to deny connections. A Distributor is not obligated to connect a building within its service territory if the connection would result in any of the following:

- Contravention of existing Canadian Laws, and those of the Province of Ontario.
- Violations of conditions in a Distributors' Licence.
- Use of a distribution system line for a purpose that it does not serve and that the Distributor does not intend to serve.

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- Adverse effect on the reliability and safety of the distribution system.
- Imposition of an unsafe work situation beyond normal risks inherent in the operation of the distribution system.
- A material decrease in the efficiency of the distributors' distribution system.
- A material adverse effect on the quality of distribution services received by an existing connection.
- Discriminatory access to distribution services.
- Potential increases in monetary amounts that already are in arrears with the distributor
- Any other conditions documented in the distributors Conditions of Service document that are consistent with the conditions identified above and with the goals delineated in the Energy Competition Act, 1998.

### **2.1.4 Inspections Before Connections**

The Distributor has the right to request an inspection prior to any connection.

All customer electrical installations shall be inspected and approved by the Electrical Safety Authority, referred to herein as the ESA.

The Distributor requires notification from the ESA of this approval prior to the connection of a customer's service.

Services that have been disconnected for a period of six months or longer shall also be re-inspected and approved by the ESA prior to reconnection.

Temporary services, for construction purposes, are approved by the ESA for a period of twelve months and must be re-inspected should the period of use exceed twelve months.

The Distributor reserves the right to inspect and approve Transformer rooms, Vaults and Pads prior to during and following the installation of equipment.

Provision for metering shall be inspected and approved by the Distributor prior to connection.

Customer owned substations must be inspected by both the Electrical Safety Authority and the Distributor, prior to connection to the Distribution system.

Duct banks and road crossings shall be inspected and approved by the Distributor prior to the pouring of concrete and again before backfilling.

The Distributor reserves the right to inspect any underground trenches prior to backfilling.

The Distributor reserves the right to approve the installation and location of all submarine cable. All documentation and permits required for laying of submarine cable must be provided to the Distributor. The installation of submarine cable must meet the requirements of all governing legislation.

All work done on existing Distributor plant must be authorized by the Distributor and carried out in accordance with all applicable safety acts and regulations.

In accordance with the Distribution System Code, if the Distributor refuses to connect a building in its

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service territory that lies along one of its distribution lines, the distributor shall inform the person requesting the connection of the reasons for not connecting, and where the distributor is able to provide a remedy, make an offer to connect. If the Distributor is unable to provide a remedy to resolve the issue, it is the responsibility of the customer to do so before a connection can be made.

#### 2.1.5 Relocation of Plant

The Distributor will, where feasible, accommodate requests to relocate electrical plant such as poles and metal enclosed equipment.

The customer will be required to pay all of the costs incurred by the relocation.

Requests by civic authorities to relocate distribution facilities will be done so in accordance with the appropriate regulations.

#### 2.1.6 Easements

To maintain the reliability, integrity and efficiency of the distribution system, the Distributor has the right to have supply facilities on private property registered against title to the property. Easements are required whenever the Distributors' underground or overhead plant is to be located on private property or crosses over an adjacent private property to service a Customer.

The Customer shall acquire and grant in the distributors name, at no cost to the Distributor, where required, an easement to permit installation and maintenance of service. The width and extent of this easement shall be determined by the Distributor. The easement shall be granted prior to connection of the service.

The Owner shall furnish to the Distributor, free and clear of all encumbrances, sufficient easements to enable the servicing of all existing or proposed developments or subdivisions from plants located on the Owners' property.

Sufficient property at suitable locations shall be made available for the purpose of the installation of distributors' assets.

The Customer will prepare at its own costs a reference plan and associated easement documents to the satisfaction of the Distributors' solicitor prior to its registration and register the easement plan. Details will be provided upon application for service.

Where surface restoration by the Distributor is required following any repairs or maintenance to a service, the Distributor will in so far as is practicable, restore the property to its original condition; and provide compensation for any damages caused by the entry that cannot be repaired.

#### 2.1.7 Contracts

<u>Standard Form of Contract</u> - Connection to the electrical distribution system will be provided upon completion of a signed contract between the customer and the distributor, and receipt of approval by the

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Electrical Safety Authority.

All customers will be required to complete and sign the standard form of contract to apply for the supply of an electrical energy connection. A Standard Contract for service shall be considered as being in force from the date it is signed by the Customer and the Distributor and shall remain in force until terminated by either party.

<u>Implied Contract</u> - In all cases, notwithstanding the absence of a formal contract, the taking and using of electrical energy from the Distributor by any Person or Persons constitutes the acceptance of the terms and conditions of all regulations, conditions and rates as established by the Distributor. Such acceptance and use of energy shall be deemed to be the acceptance of a binding contract with the Distributor and the Person so accepting shall be liable for payment for such energy and the contract shall be binding upon the Person's heirs, administrators, executors, successors or assigns.

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

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

#### 2.2 Disconnection

The Distributor has the right and/or obligation to disconnect the supply of electrical energy to a Customer for causes including but not limited to:

- Overdue amounts payable to the Distributor, Retailer, or Wholesaler (provided the Distributor provides the Customer with reasonable notice of the proposed shut off of electricity).
- *Hazardous conditions.*
- Electrical disturbance propagation caused by Customer equipment that is not corrected in a timely fashion.
- Energy diversion, fraud or abuse on the part of the Customer.
- When ordered to do so by any authority having the legal right to issue such an order.
- Adverse effect on the reliability and safety of the distribution system.
- Imposition of an unsafe worker situation beyond normal risks inherent in the operation of the distribution system.
- A material decrease in the efficiency of the distributor's distribution system.
- A materially 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.

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### 2.3 Conveyance of Electricity

### 2.3.1 Guaranty of Supply

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

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

When power is interrupted, or the Customer is experiencing power quality problems the Customer or their electrical contractor shall first ensure that interruption is not due to problems within the customer owned installation. If after verifying that the cause of the problem does not reside on the customers' installation, the customer shall contact the Distributor. The Distributor will respond to and take reasonable steps to restore power. The Distributor reserves the right to recover costs from the customer for making false claims of interruptions.

Although it is the Distributors' policy to minimize inconvenience to Customers, it is necessary to occasionally interrupt a Customers' supply to maintain or improve the Distributors' system, or to provide new or upgraded services to other Customers. Whenever practical and cost effective, as determined by the Distributor, arrangements suitable to the Customer and the Distributor may be made to minimize any inconvenience. The Distributor will endeavor to provide the Customer with reasonable advance notice, except in cases of emergency, involving danger to life and limb, or impending severe equipment damage.

The Distributor will endeavor to notify Customers prior to interrupting the supply to any individual service. However, if an unsafe or hazardous condition is found to exist, or if the use of electricity by apparatus, appliances, or other equipment is found to be unsafe or damaging to the Distributor or the public, service may be discontinued without notice.

Depending on the outage duration and the number of Customers affected, the Distributor may issue a news release to advise the general public of the outage.

## 2.3.2 Power Quality

The distributor will respond to and take reasonable steps to investigate consumer power quality complaints and report to the consumer on the results of the investigation. The method and level of investigation will be at the discretion of the Distributor.

If the source of a power quality problem is caused by the consumer making the complaint, the distributor may seek reimbursement for the time and cost spent to investigate the complaint.

If the source of a power quality problem is caused by a consumer, the Distributor may direct the consumer to take corrective action. If the Consumer does not take such action within a reasonable time, the Distributor may disconnect the supply of power to the Customer. (*see section 2.2*)

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#### 2.3.3 Electrical Disturbances

There are levels of voltage fluctuation and other disturbances that can cause flickering lights and more serious difficulties for Customers connected to the Distributor distribution system.

Some types of electronic equipment, such as video display terminals, can be affected by the close proximity of high electrical currents that may be present in transformer rooms.

No electrical equipment, which may produce an undesirable system disturbance, shall be connected by a customer to a customer's service without prior approval of the Distributor.

Examples of equipment, which may cause disturbance, are large motors, welders and variable speed drives. In planning the installation of such equipment, the customer is required to consult with the Distributor.

The Distributor will endeavour to maintain voltage variation limits, under normal operating conditions, at the Customers' Delivery Points, as specified by the latest edition of the <u>Canadian Standards Association</u>, <u>C235</u>. However, more sensitive electronic equipment such as computers can be seriously affected by variations in quality of supply voltage. Customers who need electrical power of high quality and with rigid voltage tolerances are responsible for providing their own power conditioning equipment.

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

The customer shall provide such protective devices as may be necessary to protect his property or equipment from any disturbance beyond the control of the distributor.

## 2.3.4 Standard Voltage Offerings

## 2.3.4.1 For Secondary Voltage

The Supply Voltage governs the limit of supply capacity for any Customer. General guidelines for supply from overhead street circuits are as follows:

- at 120/240 V. single phase, or
- 347/600 V. three phase, four wire, or
- 120/208 V three phase, four wire,

#### OR

Where street circuits are buried, the Supply Voltage and limits will be determined upon application to the Distributor.

#### OR

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Where the Customer or Developer provides a pad on private property;

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

### 2.3.4.2 For Primary Voltage

Primary supplies to transformers or customer-owned substations will be one of the following as determined by the Distributor:

- 2,400/4,160 volts 3 phase 4 wire
- 4,800/8,320 volts 3 phase 4 wire
- 7,200/12,400 volts 3 phase 4 wire
- 8,000/13,800 volts 3 phase 4 wire
- 16,000/27,600 volts 3 phase 4 wire
- 27,600 volts 3 phase 3 wire delta
- 44,000 volts 3 phase 3 wire

An electrical requirement in excess of 300 kVA may require a customer owned Substation supplied at the voltage as determined by the distributor.

## 2.3.5 Voltage Guidelines

The Distributor maintains service voltage at the Customers' service entrance within the guidelines of C.S.A. Standard CAN3-C235 (latest edition) which allows variations from nominal voltage of: <a href="http://www.csa-intl.org/onlinestore/GetCatalogDrillDown.asp?Parent=542">http://www.csa-intl.org/onlinestore/GetCatalogDrillDown.asp?Parent=542</a>,

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6% for Normal Operating Conditions
8% for Extreme Operating Conditions
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Where voltages lie outside the indicated limits for Normal Operating Conditions but within the indicated limits for Extreme Operating Conditions, improvement or corrective action will be taken on a planned and programmed basis, but not necessarily on an emergency basis.

Where voltages lie outside the indicated limits for Extreme Operating Conditions, improvement or corrective action will be taken on an emergency basis. The urgency for such action will depend on many factors such as the location and nature of load or circuit involved, the extent to which limits are exceeded with respect to voltage levels and duration, etc.

## 2.3.6 Back-up Generators

Customers with portable or permanently connected emergency generation capability shall comply with

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all applicable criteria of the Ontario Electrical Safety Code and in particular, shall ensure that customer emergency generation does not back-feed on the Distributors' system.

http://www.esainspection.net/pdf/Ontario Amendments Canadian Electrical Code.pdf

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

The distributor reserves the right to have the connection of this equipment inspected.

Generation systems found to be feeding into the Distribution system without proper approval of the Distributor shall be subject to immediate disconnection.

### 2.3.7 Metering

#### **2.3.7.1** General

#### 2.3.7.1.1 Access

The Distributor or its agents shall have the right to access and read any of the Distributors' electricity meters on the Customer's premises.

All metering installations shall be accessible from a public area.

#### 2.3.7.1.2 Costs

All the Distributor metering equipment located on the Customer's premises are in the care and at the risk of the Customer and if destroyed or damaged, other than by normal usage, the Customer will pay for the cost of repair or replacement.

Regardless of any charges for metering installations, all meters and meter instrumentation equipment shall remain the property of the Distributor and maintenance of this equipment shall be the Distributors' responsibility.

#### 2.3.7.1.3 Voltage

Generally, metering will be at utilization voltage. Where the Distributor provides primary transformation, primary voltage metering will be allowed only in special circumstances following full discussion with the Distributor.

Customer-owned substations may require primary metering. The provisions required for these installations shall be specified and approved by the Distributor for each application.

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#### 2.3.7.1.4 Primary / Bulk Metering

Primary metering units may be installed outdoors or within and electrical vault as outlined in the current Electrical Safety Code. Where the Owner prefers not to provide an approved electrical vault, the Distributor at additional cost can provide a metering unit with non-flammable coolant.

Non-residential or mixed-use buildings will normally be bulk metered by a single meter. However, where specific areas are clearly and permanently defined and in other respects as a separate entity, individual metering of the loads will be considered.

In all installations where the Customer requests revenue metering remote from the secondary entrance equipment or downstream from a Customer-owned dry-core transformer, provisions are required for a bulk meter directly after the main switch. This bulk metering is required in addition to any public metering provisions. The Customer will be required to contribute to the cost of the metering installation.

Where more than one meter exists, the meters shall be grouped where practicable.

The customer/contractor shall permanently and legibly identify all metered services with respect to correct municipal 911 address and unit #. The identification shall be applied to all service switches and breakers and to all meter cabinets and meter mounting devices that are not immediately adjacent to the service switch. The customer/contractor shall insure that all service identifications are accurate and by not doing so will be held totally responsible. The Distributor shall issue a Meter Verification Sheet for this purpose to the owner or contractor.

In any case, a copy of the metering layout plan shall be forwarded to the Distributor for review and approval.

If the distribution of the metered load circuit is in dispute, (ie: circuits from one premise is found to supply a second premise) the Distributor reserves the right to transfer all accounts into the Property Owners' name until such time as the problem has been resolved, and the individual metering can be clearly identified with the individual units.

#### 2.3.7.1.5 Locks

All devices on the line side of the Distributor metering shall have provisions for padlocking.

For commercial and industrial services the Customer's main switch shall have provisions for padlocking the switch handle in the open position and the switch cover or door in the closed position.

When a disconnect device has been locked in the "OFF" position by the Distributor, under no circumstances shall anyone remove the lock and energize it without first receiving approval from the Distributor.

At the discretion of the Distributor, a dual locking arrangement, a Distributor master key arrangement, a key box arrangement, or a copy of the access key will be required for access.

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#### 2.3.7.2 Current Transformer Boxes

Where a current transformer box is required, it shall be CSA approved, of a size and type as stipulated by the Distributor, and include a provision for padlocks. A removable plate shall be provided in the box for mounting the equipment.

As an alternative to a separate CT box and meter, a single enclosure combining both functions may be feasible. Contact the Distributor for details.

In cases where the CTs only meter a portion of the metal clad switchgear (such as house loads), a separate disconnect switch must be installed ahead of the metering compartment so that the service can be deenergized without any interruption to the main service supply.

Generally, one house load meter only will be allowed. Additional house load meters will require authorization from the Distributor.

Conductors should enter the current transformer box at the top and leave at the bottom, or vice versa. If this cannot be arranged, the next largest CT box must be used to enable conductors to be trained in place. Where parallel conductors are used, the sum of the conductors will determine the size of the CT box to use. In all cases the Customer shall supply suitable cable termination lugs.

On all electrical services that require current transformers and the neutral for metering, an isolated neutral block shall be provided in the current transformer box.

## 2.3.7.3 Interval Metering

<u>The Distribution System Code</u>, as amended from time to time, requires the Distributor to meter Customers of specific load levels with pulse-recording meters, or interval meters, which are interrogated remotely. The Distributor, at its' sole discretion, may also require such metering on any customer whose load characteristics may have a significant impact on the Net System Load Shape, or where reasonable access to the meter for the purpose of acquiring metering data may be limited due to location.

A customer that requests interval metering shall compensate a distributor for all incremental costs associated with that meter, including the capital cost of the interval meter, installation costs associated with the interval meter, ongoing maintenance (including allowance for meter failure), verification and re-verification of the meter, installation and ongoing provision of communication line or communication link with the customer's meter, and cost of metering made redundant by the customer requesting interval metering. The communication system utilized for interval meters shall be in accordance with the distributors' requirements.

Where such metering exists the Distributor will consider customer requests to provide a secondary pulse for load control or customer-owned metering at the customers' expense.

In keeping with the intent of the Legislation and accompanying amendments, once an interval meter installation is processed as part of the distributors' settlement process, and has affected the relevant changes

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to the distributors net system load, the installation must not be changed back to a non-interval meter installation.

Where a customer submits a request to read their own interval meter, the Distributor shall make this access available given the following conditions are met:

- The meter has the capability of read-only password protection
- The customer provides a signed copy of the "Interval Metering Access Agreement" to the Distributor.

#### 2.3.7.3.1 Interval Metering Communications

- Solid-state recorders and/or Electronic Interval Meters installed by the Distributor have provision for remote interrogation over a telephone line. To accommodate this feature the Owner will provide shared access to a telephone line for the Distributors' metering purposes.
- At its' sole discretion, for metering installations where loss of metering data would cause a substantial impact on the Distributors Settlement System, the Distributor may require the phone line to be dedicated for metering purposes only.
- A voice quality telephone line, which is active 24 hours a day to the metering location extension jack, which is mounted on the metering board.
- Phone lines must be installed and functioning prior to the new service being energized.

### 2.3.7.4 Meter Reading

The Distributor will read all meters on a regularly scheduled basis whenever possible. If an actual meter reading is not obtained, the Customer shall pay a sum based on an estimated demand and/or energy for electricity used since the last meter reading.

### 2.3.7.5 Final Meter Reading

When a service is no longer required, or the Customer is switching Energy Providers, the Customer shall provide the Distributor sufficient notice of the date so that a final meter reading can be obtained. The Customer shall provide access to the Distributor or its agents for this purpose.

If a final meter reading is not obtained, the Customer shall pay a sum based on an estimated demand and/or energy for electricity used since the last meter reading.

## **2.3.7.6** Faulty Registration of Meters

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

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In the event of incorrect electricity usage registration, the Distributor will determine the correction factors based on the specific cause of the metering error and the Customer's electricity usage history. The Customer shall pay for all the energy supplied, a reasonable sum based on the reading of any meter formerly or subsequently installed on the premises by the Distributor, due regard being given to any change in the character of the installation and/or the demand.

If the incorrect measurement is due to reasons other than the accuracy of the meter, such as incorrect meter connection, incorrect connection of auxiliary metering equipment, or incorrect meter multiplier used in the bill calculation, the billing correction will apply for the duration of the error. The Distributor will correct the bills for that period in accordance with the regulations under the Act. http://lois.justice.gc.ca/en/ShowFullDoc/cr/SOR-86-131///en?noCookie.

### 2.3.7.7 Meter Dispute Testing

The Distributor will attempt to resolve billing enquiries. However, to give Customers confidence in the accuracy of electricity meters, the Distributor will conduct an internal investigation to verify the accuracy of any meter the Customer believes to be recording incorrectly. If the internal investigation does not resolve the matter, the Customer or the Distributor may request Measurement Canada to test the meter. <a href="http://strategis.ic.gc.ca/epic/site/mc-mc.nsf/en/h\_lm02112e.html">http://strategis.ic.gc.ca/epic/site/mc-mc.nsf/en/h\_lm02112e.html</a>.

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If the test indicates that the meter is not accurate, the Customer's historic billing will be adjusted, and the Distributor shall pay the full costs of the meter dispute testing.

#### **2.3.7.8** Location

The location of the indoor or outdoor meter shall be readily accessible at all times and acceptable to the Distributor. If a meter is recessed or enclosed after installation, without the prior approval of the Distributor, the service may be subject to disconnection.

The location of the service entrance, routing of duct banks, metering, and all other works will be established through consultation with the Distributor. Failure to comply may result in relocation of the service plant at the Owner's expense.

In all locations where Commercial/Industrial revenue metering is accessible to the general public, a lockable enclosure or a room for service equipment and meters, shall be provided by the Owner at the discretion of the Distributor, as follows:

- An electrical room reserved solely for metering equipment or
- Metal enclosed switchgear approved by the Distributor or
- A suitable metal metering cabinet or
- A vandal proof cage.

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### 2.3.7.9 Meter Mounting Heights

Provision for metering shall facilitate a practical mounting height for revenue meters in compliance with all applicable codes and regulations.

#### **2.3.7.10 Environment**

The following requirements apply to the areas allocated for revenue metering.

The customer to the satisfaction of the Distributor shall provide where there is the possibility of danger to workmen, or damage to equipment from moving machinery, dust, fumes, or moisture, protective arrangements.

A clear safe working space of not less than 1.2 m (48") in front of the installation from the floor to ceiling with a minimum ceiling height of 2.1 m (84") provided to insure the safety of the Distributor or other authorized employee(s) who may be required to work on the installation.

Where excessive vibration may affect or damage metering equipment, adequate shock-absorbing mounting shall be provided and installed by the customer.

#### **2.3.7.11 Meter Sockets**

The owner will supply and install a meter socket as specified by the Distributor. Meter sockets will be directly accessible to the Distributors' staff.

A listing of approved revenue metering sockets is available from the Distributor.

#### **2.3.7.12** Cabinets

Where required by these Conditions of Service the Owner shall supply and install a meter cabinet to The Distributors' requirements.

Meter cabinets shall be installed indoors, except where special permission is granted by the Distributor to install the meter cabinet outside. In such cases, an approved weather proof, lockable, C.S.A. approved meter cabinet shall be provided by the Customer.

## 2.3.7.13 Metering Loops

Three-phase, four-wire services will require a loop for metering, within the meter cabinet, for all three phases.

Mineral insulated, solid, or hard drawn wire conductors are not acceptable as metering loops.

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### 2.3.7.14 Metal Enclosed Switchgear

The following regulations apply to the installation of instrument transformers and metering equipment within metal enclosed switchgear.

The Distributor will provide the following revenue metering equipment as required:

- Colour coded secondary wiring
- Revenue meters

#### The Owner shall:

- Consult with The Distributor regarding the metering equipment to be provided which may include,
  - o Potential transformers
  - o Potential transformer fuse holders and fuses
  - Current transformers
  - o Phone line for remote interrogation of meters
  - o Duplicate Pulse Initiators
  - o Provide complete shipping instructions for instrument transformers for those projects where these are to be provided by the Distributor for installation by the switchboard manufacturer.
  - o Install instrument transformers, metering cabinet and conduit.
  - o Each main bus bar to be drilled and tapped (10-32) or (10-24) on the line side of the removable current transformer link.
- Submit two copies of the manufacturer's switchboard drawings, for approval, dimensioned to show provision for and arrangement of The Distributors' metering equipment.

Meters shall be installed by the Distributor in a customer-owned metal cabinet of a size and type pre-approved by the Distributor, mounted at an approved location separate from the switchgear.

Tamper proof or sealable rigid conduit or any equally approved conduit of a size and type specified by the Distributor shall be installed between the CT compartment of the switchgear and the meter cabinet.

For conduit installations greater than 30 m (100'), in length or where several bends are necessary, larger conduits or other special provision may be required, at the discretion of the Distributor.

## 2.3.7.15 Switchgear Connected to Wye Source

Where a Wye source neutral connection is to be used or grounded, the Owner shall provide a conductor sized to the requirements of the Ontario Electrical Safety Code from the instrument transformer compartment to the neutral connection.

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### **2.3.7.16** Four Quadrant Metering (Generation)

All Ontario Energy Board-licensed generators connected to the distribution system that sell energy and settle through the distributor's retail settlement process shall be required to install metering that meets the requirements of the <u>Distribution System Code</u> as approved by the Ontario Energy Board, and/or the Market Rules as approved by the Independent Electricity Market Operator. <a href="http://www.ieso.ca/">http://www.ieso.ca/</a>

## 2.4 Tariffs and Charges

#### 2.4.1 Service Connection

Charges for Service Connections are set out in the Distributors approved rates, (Miscellaneous Rates and Charges) and may be obtained by request from the Distributor. Notice of Rate revisions may be published in the local newspapers and or mailed out to all customers with the first billing issued at revised rates.

### 2.4.2 Energy Supply

The Distributor shall provide Customers connected to the Distribution System with access to electricity through Standard Supply Service as defined in the <u>Retail Settlement Code</u> published by the OEB or as mandated though Legislation or Regulations issued by the Ministry of Energy.

Disputes arising from charges relating to Standard Supply Service shall be directed to the Distributor.

Customers will be switched to their Retailer of choice only if the retailer has a Service Agreement with the Distributor. The Customer's authorized Retailer through the Electronic Business Transaction system (EBT) must make the Service Transfer Request (STR) in accordance with the rules established and amended from time to time by the Ontario Energy Board.

Disputes arising from charges relating to Retailer Service shall be directed to the Retailer.

The Distributor may, at its discretion, refuse to process a Service Transfer Request for a Customer to switch to a Retailer if that Customer owes money to the Distributor for Distribution Services and or Standard Supply Service.

## 2.4.2.1 Wheeling of Power

Customers considering delivery of electricity through the Distributors' Distribution System shall contact the Distributor for technical requirements and current applicable Rates.

## 2.4.3 Supply Deposits & Agreements

Whenever required by the Distributor, the Customer shall provide and maintain security in an amount that the Distributor has been mandated to collect, or deems necessary and reasonable. The Distributor shall require security

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amounts based on the existing security and deposit policies. The current deposit policy shall be provided to the Customer upon request.

Where a customer proposes the development of premises that requires the Distributor to place equipment orders for special projects, the customer is required to sign the necessary Supply Agreements and furnish a suitable deposit before such equipment is ordered by the Distributor.

### **2.4.4 Billing**

The Distributor may, at its option, render bills to its Customers on either a monthly, bi-monthly, quarterly or annual basis. The option applicable to the customer shall be identified to the customer at the time of application for service.

Prorating of Service and Demand charges will be performed at the discretion of the Distributor.

### 2.4.4.1 Competitive Charges:

Are based on rates as determined by:

- i. the Hourly Ontario Spot Market Price (HOEP); or
- ii. the utilities Weighted Average Price (WAP) as determined by net system load; or
- iii. the customers retailer contract rate; or
- iv. the rates published by the OEB; or
- v. Legislation or Regulations issued by the Ministry of Energy.

#### 2.4.4.2 Non-competitive Charges:

Are based on rates approved by the Ontario Energy Board, and fall outside the scope of this document. Approved rates as they relate to the transmission, distribution and other non-competitive elements may be attained through the utilities rate documents. These documents will be provided by the utility at the customer's request.

#### 2.4.4.3 Billable Engineering Units:

Customers will be billed on:

- i. actual or estimated meter reading data; or
- ii. derived consumption data (Streetlights, sentinel lights and other scattered loads); or
- iii. a flat rate, depending on the type of load being billed.

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#### 2.4.4.4 Use of Estimates:

In months where a bill is issued, but no reading is obtained, the Distributor estimates usage in order to determine billing quantities. The estimate is based on historical usage for the premise, or a pre-determined quantity if there is no historical usage information available.

### 2.4.5 Payments and Late Payment Charges

Bills are rendered for distribution services and electrical energy used by the Customer. Bills are payable in full by the due date.

Bills are due when rendered by the utility. A customer may pay the bill without the application of a late payment charge up to a due date, which shall be a minimum of sixteen calendar days from the date of mailing or hand delivery of the bill. This due date shall be identified clearly on the customer's bill.

Where payment is made by mail, payment will be deemed to be made on the date post-marked. Where payment is made at a financial institution acceptable to the utility, payment will be deemed to be made when stamped/acknowledged by the financial institution or an equivalent transaction record is made.

A partial payment will be applied to any outstanding arrears before being applied to the current billing, unless special considerations have been made by the utility.

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

The Distributor shall not be liable for any damage on the Customer's premises resulting from such discontinuance of service. A reconnection charge may 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.

## 2.4.6 Unauthorized Energy Use

The Distributor shall use its discretion in taking action to mitigate unauthorized energy use. Upon identification of possible unauthorized energy use, the Distributor shall notify, if appropriate, Measurement Canada, The Electrical Safety Authority, Police Officials, Retailers that service customers affected by an authorized energy use, or other entities.

The Distributor may recover from the parties responsible for the unauthorized energy use all costs incurred by the Distributor arising from unauthorized energy use, including an estimate of the energy used, inspection and repair costs.

A service disconnected due to unauthorized use of energy shall not be reconnected until such time as all arrears resulting from the unauthorized use has been resolved to the satisfaction of the Distributor.

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Prior to reconnection, the Distributor shall require proper authorization from applicable authorities.

#### 2.5 Customer Information

The Distributor reserves the right to request specific information from the customer in order to facilitate the normal operation of its business. Failure of a customer to supply such information may prevent the normal continuation of service.

The <u>Retail Settlement Code</u> as amended from time to time specifies the rights of customers and their retailers to access current and historical usage information and related data and the obligations of distributors in providing access to such information.

Under these requirements, the Distributor shall upon authorization by a customer make the following information available to the Customer or the Retailer that provides electricity to a customer connected to the Distributors' distribution system:

- The Distributors' account number for the customer.
- The Distributors' meter number for the meter or meters located at the customer's service address
- The customer's service address.
- The date of the most recent meter reading,
- The date of the previous meter reading,
- Multiplied kilowatt-hours recorded at the time of the most recent meter reading,
- Multiplied kilowatt-hours recorded at the time of the previous meter reading,
- Multiplied kW for the billing period (if demand metered),
- Multiplied kVA for the billing period (if available),
- Usage (kWh's) for each hour during the billing period for interval-metered customers
- An indicator of the read type (e.g., distributor read, consumer read, distributor estimate, etc.)
- Average distribution loss factor for the billing period

This information will be provided to the Customer / Retailer upon request twice per year at no charge. The Distributor may request a fee to recover costs for additional requests. A request is considered to be data delivered to a single address. Thus, a single request to send information to three locations is considered three requests.

The Distributor acknowledges that no confidential information regarding its' customers shall be released to a third party without the expressed prior written consent of the customer unless the request is rightfully received from the third party requesting the information, or the Distributor is legally required to disclose such information under the terms and in accordance with the Freedom of Information and Protection of Privacy Act, R.S.O. 1990, c. F.31.

HOTLINK http://www.privcom.gc.ca/legislation/02\_07\_01\_e.asp

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### SECTION 3 CUSTOMER SPECIFIC

#### 3.1 Residential

This section refers to the supply of electrical energy to Customers residing in residential dwelling units.

#### 3.1.1 General

Energy is generally supplied as single phase, 3-wire, 60-Hertz, having a nominal voltage of 120/240 Volts.

There shall be only one <u>Delivery Point</u> to a dwelling.

In circumstances where two existing services are installed to a dwelling, and one service is to be upgraded, the upgraded service will replace both of the existing services.

All new single-family homes will be required to install their primary and secondary service wires to the specifications contained within the Distributors' technical specification document.

Whether the method of supply will be overhead or underground will be at the discretion of the distributor. The Distributor will adhere to any existing regulations subject to requirements of authorities.

Unless specifically documented otherwise to the Customer, where the distributor has taken ownership of such plant all services installed by the Distributor or by an approved contractor using approved materials, will be maintained by the Distributor.

### 3.1.2 Early Consultation

The Customer shall supply a completed <u>Site Planning document</u> and related information to the Distributor well in advance of installation commencement. (see appendix) The information shall be supplied in a manner requested by the Distributor at the time of the application.

#### 3.1.3 Standard Connection Allowance

For the purposes of calculating customer connection fees, the Basic Connection for Residential consumers is defined as 100 amp 120/240 volt overhead service.

The basic connection for each customer shall include;

- i. supply and installation of overhead distribution transformation capacity or an equivalent credit for transformation equipment; and
- ii. up to 30 meters of overhead conductor or an equivalent credit for underground services.

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In the case of an upgrade to an existing service, where the existing service is below the basic connection, the credit up to the basic connection will apply.

Secondary services exceeding the basic 30 meter length may require specific design approved by the Distributor to ensure power quality.

#### 3.1.4 Variable Connection Fees

Any requirements above the defined basic connection shall be subject to a variable connection charge to be calculated as the costs associated with the installation of connection assets above and beyond the basic connection. The distributor may recover this amount from a customer through a connection charge or equivalent payment.

#### 3.1.5 Point of Demarcation

In all cases the final Demarcation Point will be the decision of the Distributor.

The Customer must obtain a Demarcation Point Location from the Distributor before proceeding with the installation of any service. Failure to do so may result in the Demarcation Point having to be relocated at the Customer's expense.

Maintenance of the portion of the Secondary Service owned by the Distributor includes repair and like-forlike replacement of a wire or cable that has failed irreparably. The Customer is responsible for all civil work, supports, vegetation and landscaping associated with any such repair or replacement of the portion of Secondary Service owned by the Distributor.

#### 3.1.5.1 Secondary Service Connections

The Point of Demarcation for residential services up to 400 amps is at the line side of the Meter Base for Underground services, and at the top of the stack for Overhead services, beyond which the customer bears full responsibility for installation and maintenance.

The Point of Demarcation for residential services over 400 amps is at the secondary side of the transformer.

For Secondary Services wholly owned and maintained by the Customer, the <u>Demarcation Point</u> is the secondary connection at the transformer or the service bus.

The Customer shall install, own, and maintain the secondary conductor under any of the following conditions:

- (a) conductor terminations are inside the Customer's building;
- (b) conductor is installed beyond the service entrance;
- (c) conductor is connected to a Primary Service; or
- (d) conductor is a non-standard installation.

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#### 3.1.5.2 Primary Service Connections

For Primary Service, the <u>Demarcation Point</u> is the primary connection at the Distributor's Distribution system.

### 3.1.6 Supply Voltage

- (a) A Residential building is supplied at one service voltage per land parcel.
- (b) Depending upon the location of the building the supply voltage will be one of the following:
  - o 120/240 Volts 1 Phase 3 Wire
  - o 120/208 Volts 1 Phase 3 Wire
  - o 120/208 Volts 3 Phase 4 Wire
  - o 347/600 Volts 3 Phase 4 Wire
- (c) The Owner shall make provision to take delivery at one of the nominal utilization voltages as specified by the Distributor. The Owner shall obtain prior approval from the Distributor for the use of any specific voltage at any specific location.

#### **3.1.7** Access:

At the Distributors discretion, service locations requiring access to adjacent properties (mutual drives, narrow side setbacks, etc.) will require the completion of an easement in the Distributors' name, or a "Letter of Permission "from the property owner(s) involved.

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

## 3.1.8 Metering:

The owner will supply and install a meter socket complete with collar acceptable to the Distributor. Meter sockets will be directly accessible to the Local Distribution Company and:

- Mounted 1.7 meters from the finished grade to the center of the meter and, either on the exterior of the front of the building or, within 3 meters of the front of the building on the driveway side.
- Installed ahead of (on the line side of) the main disconnect switch.
- Installed in a location, which is and will remain unobstructed by fences, hedges, expansions, sunrooms, porch enclosures, and any other impediments.
- If the meter is not to be installed on the actual building, it is important to contact the Distributor for specific location instructions prior to installation.

For more details refer to section 2.3.7 in these Conditions of Service.

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#### 3.1.9 Overhead Service

The Owner will provide service equipment to both the Distributors' and ESA requirements, and be of sufficient height to maintain proper minimum clearances. The Owner's main switch and the overhead service conductors will be of compatible capacity.

### 3.1.10 Underground Service

Underground secondary services will be installed at the Owners' expense, to the Distributor's specifications. The Owner's main switch and the underground service conductors will be of compatible capacity.

#### 3.1.11 Street Townhouses and Condominiums:

**NOTE:** Street Townhouses and Condominiums requiring centralized bulk metering will be covered under section 3.2 of these Conditions of Service. Also 3.1.11.2

#### 3.1.11.1 Service Information:

The Owner will enter into a Servicing Agreement with the Distributor, governing the terms and conditions under which the electrical distribution system and services will be designed and installed.

The Owner will provide all of the civil works to accommodate the Distributor and will pay the complete cost of the electrical distribution system, design and services.

- The distribution system and services shall be underground unless otherwise approved.
- One service will be provided for each unit.
- The nominal service voltage will be 120/240 volts, 1 phase, 3 wire.
- The Distributor will approve the location of duct banks, service routings and meter bases.
- Distribution plant shall not be installed until grade is at +/- 150 mm of final grade unless otherwise approved by the Distributor.
- Street lighting will be to Municipal standards and installed at the Owner's expense.

### **3.1.11.2** Metering:

The Owner will supply and install meter sockets specified by the Distributor.

Multiple or grouped meter bases will be accepted only when prior approval has been given by the Distributor both as to type and proposed location. A completed meter verification form shall be provided to the distributor prior to energization.

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Meter sockets will be located on the exterior front wall of the units and will be directly accessible to the Distributor.

- Mounted on the front wall 1.7 metres above finished grade to the centre of the meter
- Installed ahead of (on the line side of) the main disconnect switch
- Installed in a location, which is and will remain unobstructed by fences, hedges, expansions, sunrooms, porch enclosures, and any other impediments.
- If the meter is not to be installed on the actual building, it is important to contact the Distributor for specific location instructions prior to installation.

Normally the service will not be energized until the outside finish in the area of the revenue meter has been completed. If exceptions are made to this, then the general contractor will be responsible for ensuring that the meter is suitably protected while work is being done on the exterior wall adjacent to the meter. The general contractor will be entirely responsible for all costs for materials and labour for repairing or replacing a damaged meter.

### 3.1.12 Seasonal and Remote Dwellings:

Due to the varied nature of Seasonal and Remote Dwellings some special arrangements may be required to service these locations. Arrangements will be made in such a manner to provide services such as restoring power, maintenance of equipment or new construction requests to water access or remote customers, without endangering personnel or the public.

#### 3.1.12.1 Service Information:

The Owner will enter into a Servicing Agreement with the Distributor, governing the terms and conditions under which the electrical distribution system services will be provided.

In the event of a power interruption, the Distributor will respond to and take reasonable steps to restore power. The Distributor reserves the right to recover costs from the customer for making false claims of interruptions.

#### 3.1.12.2 Access:

#### • Night crossings

The Distributors' transportation equipment will not be used to cross any water ½ hour before sunset and ½ hour after sunrise due to safety concerns. It will be at the discretion of the Distributor whether they will board customer owned transportation equipment in these circumstances.

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#### • Ice conditions

Recognizing seasonal ice hazards, the Distributor reserves the right to suspend water passage during freeze up and spring thaw, as well as any such time deemed unsafe by the Distributor.

#### • Severe weather conditions

Recognizing that severe weather conditions may pose undue safety hazards, the Distributor reserves the right to postpone attempts to restore power until restoration can be performed in a safe manner.

### 3.1.13 Inspection:

Prior to connection of the service the Local Distribution Company requires notification from the Electrical Safety Authority that the electrical installation has been inspected and approved for connection.

Provision for metering shall be inspected and approved by the Distributor prior to connection.

The Distributor or Distributor-approved Contractor generally installs all services. All work done shall be as per the specifications of the Distributor and subject to inspection by the Distributor.

(Refer to section 2.1.4 for further inspection details)

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### 3.2 General Service (Below 50 kW)

#### 3.2.1 General

This section refers to the supply of electrical energy to General Service Buildings requiring a connection with a connected load less than 50 kW, and, Town Houses and Condominiums described in section 3.1.8 that require centralized bulk metering.

General Service buildings are defined as buildings that are used for purposes other than single-family dwellings.

### 3.2.2 Early Consultation

Detailed regulations cannot be stated which would be applicable to all cases, therefore the Owner will consult with the Distributor in the early planning stages to ascertain the Distributors' requirements.

The Owner shall supply a completed <u>Electrical Planning Requirements Form</u> to the Distributor well in advance of installation commencement to allow the Distributor time for proper planning, ordering of equipment etc.

### 3.2.3 Standard Connection Allowance

All costs attributed to the connection of a new General Service customer (Below 50 kW) shall be recovered through a variable connection Fee.

#### 3.2.4 Variable Connection Fees

All costs associated with the installation of connection assets shall be subject to a variable connection charge. The distributor may recover this amount from a customer through a connection charge or equivalent payment.

#### 3.2.5 Point of Demarcation

In all cases the final Demarcation Point will be the decision of the Distributor.

The Customer must obtain a Demarcation Point Location from the Distributor before proceeding with the installation of any service. Failure to do so may result in the Demarcation Point having to be relocated at the Customer's expense.

Maintenance of the portion of the Secondary Service owned by the Distributor includes repair and like forlike replacement of a wire or cable that has failed irreparably. The Customer is responsible for all civil work, supports, vegetation and landscaping associated with any such repair or replacement of the portion of Secondary Service owned by the Distributor.

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The Distributor shall perform the maintenance or replacement of all underground looped cables that form part of the Distribution plant circuits. Following maintenance, surface restoration by the Distributor will include only soil, sod, gravel or asphalt.

Where damage can be shown to be the Owner's liability, maintenance and repair are at the Owners' expense

### 3.2.5.1 Secondary Service Demarcations

A General Service Customer <u>Demarcation Point</u> is at the secondary side of the transformer, or as otherwise set by the distributor, beyond which the customer bears full responsibility for installation and maintenance.

In some instances, where it is in the best interest of the operation of the distribution system, the Distributor may establish the Demarcation Point at the top of stack for overhead services or at the meter base for underground services.

The Demarcation Point might be located on an adjacent property. In such cases, a registered easement must exist.

#### 3.2.5.2 Primary Service Demarcations

For Primary Service, the Demarcation Point is the primary connection at the Distributor's Distribution system.

### **3.2.6** Supply Voltage

- (a) A General Service building is supplied at one service voltage per land parcel.
- (b) Depending upon the location of the building the supply voltage will be one of the following:
  - o 120/240 Volts 1 Phase 3 Wire
  - o 120/208 Volts 1 Phase 3 Wire
  - o 120/208 Volts 3 Phase 4 Wire
  - o 347/600 Volts 3 Phase 4 Wire
- (c) The Owner shall make provision to take delivery at one of the nominal utilization voltages as specified by the Distributor. The Owner shall obtain prior approval from the Distributor for the use of any specific voltage at any specific location.

#### 3.2.7 Access:

At the Distributors discretion, service locations requiring access to adjacent properties (mutual drives, narrow side setbacks, etc.) will require the completion of an easement in the Distributors' name, or a "Letter of Permission "from the property owner(s) involved.

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

#### 3.2.8 Metering:

The owner will supply and install a meter socket complete with collar acceptable to the Distributor. Meter sockets will be directly accessible to the Distributor and unless otherwise specified during the early consultation process:

- Mounted 1.7 meters from the finished grade to the center of the meter and, either on the exterior of the front of the building or, within 3 meters of the front of the building on the driveway side.
- Installed ahead of (on the line side of) the main disconnect switch.
- Installed in a location, which is and will remain unobstructed by fences, hedges, expansions, sunrooms, porch enclosures, and any other impediments.
- If the meter is not to be installed on the actual building, it is important to contact the Distributor for specific location instructions prior to installation.

For more details refer to section 2.3.7 in these Conditions of Service.

#### 3.2.9 Overhead Service:

In circumstances where Commercial buildings cannot reasonably be supplied electrical energy by an underground service, the Distributor shall use its' sole discretion based on acceptable industry practices in establishing the specific requirements for the service installation.

### 3.2.10 Underground Service:

Under normal circumstances, Commercial buildings are supplied electrical energy by an underground service through a single point of entry for each land parcel, at a location specified by the Distributor.

### 3.2.11 Supply of Equipment:

The Distributor supplies, installs and maintains subject to the variable connection fee:

- Primary switchgear.
- Primary transformation equipment.
- Meter and secondary metering transformers.

The Owner shall supply, install and maintain any additional equipment required for the connection beyond the point of Demarcation.

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### 3.2.12 Inspection:

Prior to connection of the service the Local Distribution Company requires notification from the Electrical Safety Authority that the electrical installation has been inspected and approved for connection.

Provision for metering shall be inspected and approved by the Distributor prior to connection.

The Distributor or Distributor-approved Contractor generally installs all services. All work done shall be as per the specifications of the Distributor and subject to inspection by the Distributor.

(Refer to section 2.1.4 for further inspection details)

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### 3.3 General Service (Above 50 kW)

#### 3.3.1 General

This section refers to the supply of electrical energy to General Service Customers requiring a connection with a connected load greater than 50 kW.

#### 3.3.2 Early Consultation

Detailed regulations cannot be stated which would be applicable to all cases, therefore the Owner will consult with the Distributor in the early planning stages to ascertain the Distributors' requirements.

The Owner shall supply a completed <u>Electrical Planning Requirements Form</u> to the Distributor well in advance of installation commencement to allow the Distributor time for proper planning, ordering of equipment etc.

#### 3.3.3 Standard Connection Allowance

All costs attributed to the connection of a new General Service customer (Above 50 kW) shall be recovered through a variable connection fee.

#### 3.3.4 Variable Connection Fees

All costs associated with the installation of connection assets shall be subject to a variable connection charge. The distributor may recover this amount from a customer through a connection charge or equivalent payment.

#### 3.3.5 Point of Demarcation

In all cases the final <u>Demarcation Point</u> will be the decision of the Distributor.

The Customer must obtain a Demarcation Point Location from the Distributor before proceeding with the installation of any service. Failure to do so may result in the Demarcation Point having to be relocated at the Customer's expense.

Maintenance of the portion of the Secondary Service owned by the Distributor includes repair and like forlike replacement of a wire or cable that has failed irreparably. The Customer is responsible for all civil work, supports, vegetation and landscaping associated with any such repair or replacement of the portion of Secondary Service owned by the Distributor.

The Distributor shall perform the maintenance or replacement of all underground looped cables that form part of the Distribution plant circuits. Following maintenance, surface restoration by the Distributor will include only soil, sod, gravel or asphalt.

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Where damage can be shown to be the Owner's liability, maintenance and repair are at the Owners' expense

#### 3.3.5.1 Secondary Service Connections

A General Service Customer Demarcation Point for customers above 50 kW is at the secondary side of the transformer, or as otherwise set by the distributor, beyond which the customer bears full responsibility for installation and maintenance.

In some instances, where it is in the best interest of the operation of the distribution system, the Distributor may establish the Delivery point at the top of stack for overhead services or at the meter base for underground services.

The location of the service entrance, routing of duct banks and all other works will be established through consultation with the Distributor. Failure to comply may result in relocation of the service plant at the Owner's expense.

The Demarcation Point might be located on an adjacent property. In such cases, a registered easement must exist.

#### 3.3.5.2 Primary Service Connections

For Primary Service, the <u>Demarcation Point</u> is the primary connection at the Distributor's Distribution system.

In some circumstances the owner may be required to construct a private pole line. Primary conductors will be terminated complete with cut-out(s) at the Demarcation Point by the Distributor at the owners' expense.

Where a private pole line is to be constructed by the Owner with an approved contractor, this shall be constructed to the ESA and the Distributors' requirements.

An electrical requirement in excess of 300 kVA may require a customer owned substation.

In some instances primary metering may be required.

### 3.3.6 Supply Voltage

A General Service building is supplied at one service voltage per land parcel. Depending upon the location of the building the supply voltage will be one of the following:

- 120/240 Volts 1 Phase 3 Wire
- 120/208 Volts 3 Phase 4 Wire
- 347/600 Volts 3 Phase 4 Wire

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Depending upon the location of the building Primary supplies to transformers and Customer owned Sub-Stations will be one of the following as determined by the Distributor:

- 2,400/4,160 volts 3 phase 4 wire
- 4,800/8,320 volts 3 phase 4 wire
- 7,200/12,400 volts 3 phase 4 wire
- 8,000/13,800 volts 3 phase 4 wire
- 16,000/27,600 volts 3 phase 4 wire
- 44,000 Volts 3 Phase 3 Wire

The Owner shall make provision to take delivery at one of the nominal utilization voltages as specified by the Distributor. The Owner shall obtain prior approval from the Distributor for the use of any specific voltage at any specific location.

#### **3.3.7** Access:

At the Distributors discretion, service locations requiring access to adjacent properties (mutual drives, narrow side setbacks, etc.) will require the completion of an easement in the Distributors' name, or a "Letter of Permission "from the property owner(s) involved.

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

#### 3.3.8 Metering:

Meter installations will be directly accessible to the Distributor. The owner will consult with the Distributor well in advance of installation commencement to allow the Distributor time for proper planning and ordering of equipment.

For more details refer to section 2.3.7 in these Conditions of Service.

#### 3.3.9 Overhead Service:

In circumstances where Commercial buildings cannot reasonably be supplied electrical energy by an underground service, the Distributor shall use its' sole discretion based on acceptable industry practices in establishing the specific requirements for the service installation.

#### 3.3.10 Underground Service:

Under normal circumstances, Commercial buildings are supplied electrical energy by an underground service through a single point of entry for each land parcel, at a location specified by the Distributor.

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#### 3.3.11 Sub-transmission Service:

The Owner will pay for the full cost of sub-transmission services and may in some circumstances be required to construct a private pole line. The Distributor will terminate sub-transmission conductors complete with live line loops and hardware at the Demarcation Point.

### 3.3.12 Supply of Equipment:

The Distributor supplies, installs and maintains subject to the variable connection fee:

- Primary switchgear.
- Primary transformation equipment.
- Meter and secondary metering transformers.

The Owner shall supply, install and maintain any additional equipment required for the connection beyond the point of Demarcation.

#### 3.3.13 Short Circuit Capacity:

The Owner shall ensure that the service entrance equipment has an adequate short-circuit interrupting capability.

### 3.3.14 Inspection:

Prior to connection of the service the Local Distribution Company requires notification from the Electrical Safety Authority that the electrical installation has been inspected and approved for connection.

Provision for metering shall be inspected and approved by the Distributor prior to connection.

The Distributor or Distributor-approved Contractor generally installs all services. All work done shall be as per the specifications of the Distributor and subject to inspection by the Distributor.

(Refer to section 2.1.4 for further inspection details)

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### 3.4 General Service (Above 500 kW)

#### 3.4.1 General

This section refers to the supply of electrical energy to General Service Services requiring a connection at a connected load greater than 500 kW.

#### 3.4.2 Early Consultation

Detailed regulations cannot be stated which would be applicable to all cases, therefore the Owner will consult with the Distributor in the early planning stages to ascertain the Distributors' requirements.

The Customer shall supply a completed <u>Electrical Planning Requirements Form</u> to the Distributor well in advance of installation commencement to allow the Distributor time for proper planning, ordering of equipment etc.

#### The Distributor will:

- Advise the customer of the suitability of the in-service date
- Arrange with the customer for a Service Contract
- Review the submitted drawings; return one set to the customer with comments and/or approval. If requested by the Distributor, the customer shall resubmit the drawings where the comments are extensive and require major changes
- Specify the required main fuse link or relay setting for co-ordination with the system. In case of multiple transformer stations, a complete co-ordination study shall be submitted by the customer for approval.
- *Make the final connection to the source of supply*
- Determine metering requirements
- Advise the Transmitter of the particulars of the customer owned substation

#### 3.4.3 Standard Connection Allowance

All costs attributed to the connection of a new General Service customer (Above 500 kW) shall be recovered through a variable connection fee.

#### 3.4.4 Variable Connection Fees

All costs associated with the installation of connection assets shall be subject to a variable connection charge. The distributor may recover this amount from a customer through a connection charge or equivalent payment.

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#### 3.4.5 Point of Demarcation

In all cases the final Demarcation Point will be the decision of the Distributor.

The Customer must obtain a Demarcation Point Location from the Distributor before proceeding with the installation of any service. Failure to do so may result in the Demarcation Point having to be relocated at the Customer's expense.

Maintenance of the portion of the Primary Service owned by the Distributor includes repair and like for-like replacement of a wire or cable that has failed irreparably. The Customer is responsible for all civil work, supports, vegetation and landscaping associated with any such repair or replacement of the portion of Secondary Service owned by the Distributor.

The Distributor shall perform the maintenance or replacement of all underground looped cables that form part of the Distribution plant circuits. Following maintenance, surface restoration by the Distributor will include only soil, sod, gravel or asphalt.

Where damage can be shown to be the Owner's liability, maintenance and repair are at the Owners' expense

The Distributor reserves the right to direct the operations of any customer owned switchgear connected to the distribution system including those located beyond the point of demarcation.

#### 3.4.5.1 Service Installation

In General, the <u>Demarcation Point</u> for a General Service Customer with a demand of over 500 kW is on the primary side of the transformer at the first available distributor owned point of isolation, or as otherwise set by the distributor. This delivery point might be located on an adjacent property from which the Distributor has an authorized easement. In all cases the final Demarcation Point will be the decision of the Distributor.

The location of the service entrance, routing of duct banks, metering facilities, and all other works will be established through consultation with the Distributor. Failure to comply may result in relocation of the service plant at the Owner's expense.

The Distributor will install overhead supply lines and required cut-outs to the first point of support on private property. The location of this support must be approved by the Distributor and shall be within 30 metres of the Distributors' existing overhead plant. All costs for materials and labour shall be at the customers' expense.

The service pole or first point of support on private property shall be considered self-supported and shall be complete with suitable hardware for attaching the suspension insulators. The Customer shall be responsible for all costs associated with equipment, installation, and inspection.

Where the customer wishes an underground supply, the customer shall supply and install the underground cables and termination pole complete with primary switch, fuses and lightning arresters. The installation shall be subject to ESA inspection and specific approval of the Distributor. The customer owned termination pole must comply with items as prescribed by the Distributor.

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At the Distributors' discretion, the customers' underground service may be connected to a termination pole owned by the distributor. In such cases, the Distributor shall supply and install at the customers expense, any required primary switch, fuses, and lightning arrestors.

When requested, the customer shall make provision in the substation switchgear or transformer, for loop feeding the Distributors' supply cables via load interrupter switches.

In some instances, primary metering may be required.

#### 3.4.6 Supply Voltage

A General Service building is supplied at one service voltage per land parcel.

General Service connections above 500 kW may require a customer owned substation.

Depending upon the location of the building, Primary supplies to transformers and Customer owned Sub-Stations will be one of the following as determined by the Distributor:

- 2,400/4,160 volts 3 phase 4 wire
- 4,800/8,320 volts 3 phase 4 wire
- 7,200/12,400 volts 3 phase 4 wire
- 8,000/13,800 volts 3 phase 4 wire
- 16,000/27,600 volts 3 phase 4 wire
- 44,000 Volts 3 Phase 3 Wire

The Owner shall make provision to take delivery at one of the nominal utilization voltages as specified by the Distributor. The Owner shall obtain prior approval from the Distributor for the use of any specific voltage at any specific location.

#### **3.4.7 Access:**

At the Distributors discretion, service locations requiring access to adjacent properties (mutual drives, narrow side setbacks, etc.) will require the completion of an easement in the Distributors' name, or a "Letter of Permission "from the property owner(s) involved.

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

Where the high voltage interrupting switches are located inside a building, a direct outside entrance to the switchgear room must be provided.

The outside door providing direct access to the transformer or switchgear room must be compliant with all applicable codes and requirements, and of a quality to be approved by the Distributor.

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#### 3.4.8 Metering:

The owner will supply and install provisions for metering following the details outlined both in these Conditions of Service, and technical documents provided to the customer during the consultation process.

For more details refer to section 2.3.7 in these Conditions of Service.

#### 3.4.9 Sub-transmission Service:

The Owner will pay for the full cost of sub-transmission services and may in some circumstances be required to construct a private pole line.

The Distributor will terminate sub-transmission conductors complete with live line loops and hardware at the Demarcation Point.

### 3.4.10 Short Circuit Capacity:

The Owner shall ensure that the service entrance equipment has an adequate short-circuit interrupting capability.

#### 3.4.11 Drawings

Apart from the regular drawings submission to the ESA, the customer shall provide two sets of the following drawings and details to the Distributor.

<u>Survey Plan:</u> prepared by an Ontario Land Surveyor, showing the property limits, registered plan and existing buildings or easements if any.

<u>Site Plan:</u> showing the location of the station relative to buildings, structures and set backs from adjacent property lines. The site plan shall also include the exact location of existing Distributor owned plant and the proposed route of the incoming supply.

<u>Schematic or Single-Line Diagram:</u> indicating the major components of the station and their electrical ratings. Where additions or alterations are being made, these shall be clearly distinguished from unchanged portions of the installation.

**Electrical Details:** sufficient details shall be provided in order to enable fast processing and approval of the station drawings. The following represents the minimum data required.

- Plan, elevation and profile views of the station structure, switchgear, transformer(s), termination poles, duct banks, etc.
- Dimensions to clearly indicate the electrical, physical and working clearances as well as relative location of all equipment.

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- Pole or structure for dead-ending the Distributor lines shall be complete with suitable hardware for attaching the suspension insulators that will be supplied and installed by the Distributor.
- Fencing arrangement.
- Grounding details. (In the case of indoor metal enclosed switchgear, when the Distributor has operating control of any interrupter switches, the assembly shall further incorporate ground rod parking stands and stirrups per the Distributors Specifications.)
- Details of vault construction (if indoor substation).
- Manufacturer's drawings of metal-enclosed switchgear showing internal arrangement of equipment, clearances, means of access, interlocking and provision for personal safety. Where the Distributors' cables terminate in the switchgear, the customer shall provide suitable terminators for the size and type of cable as specified by the Distributor.
- When the customer's switchgear is used for loop feeding the Distributors' supply cables, provision for padlocking the in and out load interrupter switches and the associated bay doors shall be required.
- Indoor and outdoor switchgear assemblies shall contain a space heater and protective guard in each bay, along with thermostat(s), sized to promote air circulation and to prevent condensation from forming.
- At the discretion of the distributor, the customer shall make provisions for a future system neutral connection to the customer's dead-ending pole or structures installed by the Distributor. Where the Distributors' neutral terminates in the customer's switchgear, the customer shall provide a suitable connector on the ground bus for the size and type of cable specified by the Distributor.

### 3.4.12 Pre-Service Inspection

The customer shall present to the Distributor a final "Pre-service Inspection Report" a minimum of 3 working days before connection can be affected.

The "Pre-Service Inspection Report" shall outline and document the results of all tests and inspection carried out on the substation components. The information contained in the report must be to the satisfaction of the Distributor before connection can be authorized.

The "Pre-Service Inspection Report" shall be required in case of:

- <u>New Substation</u>: in which case all components of the substation shall be reported upon.
- *Modified substation*: in which case all components of the substation shall be reported upon.

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Prior to connection of the service the Local Distribution Company requires notification from the Electrical Safety Authority that the electrical installation has been inspected and approved for connection.

Provision for metering shall be inspected and approved by the Distributor prior to connection.

The Distributor or Distributor-approved Contractor generally installs all services. All work done shall be as per the specifications of the Distributor and subject to inspection by the Distributor.

(Refer to section 2.1.4 for further inspection details)

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#### 3.5 Embedded Generation

#### 3.5.1 General

An Embedded Generator shall provide the Distributor with proof of compliance of <u>IESO</u> or <u>OEB</u> registration Requirements, appropriate Licences and completion of an application form provided by the distributor.

The Distributor shall collect costs reasonably incurred with making an offer to connect a generator from the entity requesting the connection. Costs reasonably incurred include costs associated with:

- Preliminary review for connection requirements.
- Detailed study to determine connection requirements.
- Final proposal to the generator.

A Generator that is or wishes to become connected to the distributors' distribution system shall enter into a Connection Agreement with the Distributor.

If damage or increased operating costs result from a connection with a Generator, the Generator shall reimburse the Distributor for these costs.

The Embedded Generator is responsible for providing suitable embedded generator equipment to protect his plant and equipment for any conditions on the distributor and interconnected transmission systems such as reclosing, faults and voltage unbalance.

To incorporate the connection of embedded generator to the distribution system, the line/feeder protection including settings and breaker reclosing circuits must be reviewed and modified if necessary by the distributor or transmission authority. This process may be complex and may require significant time.

The embedded generator must submit a proposed single line diagram and protection scheme for review to the distributor contact as identified by the distributor.

Based on the transformer connection proposed by the embedded generator additional significant protection cost may be incurred (e.g. delta HV transformer winding may require 3 phase HV breaker / reclosure device). The embedded generator shall not order the protection equipment and transformer until the station line diagram is reviewed and accepted by the distributor.

The purpose of the distributor review is to establish that the embedded generator electrical interface design meets the distributor requirements.

The protection schemes shall incorporate adequate facilities for testing/maintenance.

Negative phase sequence protection shall be installed where required, to detect abnormal system condition as well as to protect the generator.

The embedded generator may be required to install utility grade relays for those protections that could affect the distributor or transmission authority system.

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The embedded generator may be required to submit a Ground Potential Rise study for review by the distributor, if telecommunications circuits are specified for remote transfer trip protection.

#### 3.5.2 Protection

The embedded generator should provide protection systems to cover the following conditions:

#### 3.5.2.1 Internal Faults:

The Generator should provide adequate protections to detect and isolate generator and station faults.

#### 3.5.2.2 External Faults:

The protection system should be designed to provide full feeder coverage complete with a reliable DC supply. In some cases redundancy in protection schemes may be required.

Normally the following fault detection devices are required for synchronous generator(s) installation(s).

#### 3.5.2.3 Ground Faults:

When the HV winding of the Generator station transformer is wye connected with the neutral solidly grounded, then ground over-current protection in the neutral is required to detect ground faults.

If the Embedded generator station transformer HV winding connected to the Distributor system is ungrounded wye or delta, then ground under-voltage and ground over-voltage protections shall be required to detect ground faults.

Depending on the size, type of generator and point of connection, a distributor may require the relaying system to be duplicated, complete with separate auxiliary trip relays and separately fused DC supplies to ensure reliable protection operation and successful isolation of the embedded generator.

#### 3.5.2.4 Phase Faults:

To detect phase faults, at least one of the following protections should be installed with acceptable redundancy where required depending on fault values:

- Distance
- Phase directional over-current
- Voltage-restrained over-current
- Over-current
- Under-voltage

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#### 3.5.2.5 Islanding/Abnormal Conditions:

Voltage and frequency protections are required to separate the embedded generator from the distribution system for an islanded condition and thus maintain the quality of supply to distribution system customers. This also will enable speedy restoration of the distribution system.

Typically, the protections required to detect islanding/abnormal conditions are:

- Over-voltage
- Under-voltage
- Over-frequency
- Under-frequency
- Voltage-balance

The above protections should be timed to allow them to ride through minor disturbances.

#### 3.5.3 Induction Generator

Due to the operating characteristics of the induction generator the protection package required is normally less complex than the synchronous generator. An embedded generator should design the protection scheme to trip for the same conditions as stated for synchronous generators. An induction generator is an asynchronous machine that requires an external source such as a healthy distribution system to produce normal 60 Hz power. Alternatively, if there is an outage in the distribution system then there is unlikely to be 60 Hz output from the induction generator. In certain instances, an induction generator may continue to generate electric power after the source is removed. This phenomenon, known as self-excitation, can occur whenever there is sufficient capacitance in parallel with the induction generator to provide the necessary excitation and when the connected load has certain resistive characteristics.

### 3.5.4 DC Remote Tripping / Transfer Tripping

Remote or transfer tripping may be required between the Generator and the feeder circuit breaker if the Generator is connected at a critical location in the distribution system. This feature will provide for isolation of the embedded generator when certain faults or system disturbances are detected at the feeder circuit breaker location.

Additional Protection Features, such as Remote Trip and Generator end open signal, may be required in some applications.

#### 3.5.5 Maintenance

An Embedded Generator shall have a regular scheduled maintenance plan to assure the Distributor that all connection devices and protection & control systems are maintained in good working order. These provisions shall be included in

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the Connection Agreement. A complete copy of the inspection report shall be delivered to the Distributor within 30 days.

In developing a maintenance plan, the Generator should consider the following requirements:

- Qualified personnel should carry out all inspections and repairs.
- Periodic tests should be performed on protection systems to verify that the system operates as designed. Testing intervals for protection systems should not exceed four (4) years for microprocessor-based systems and two (2) years for electro-mechanical based systems.
- Isolating devices at the point of connection should be operated at least once per year.
- The Generator facility should be inspected visually at least once per year to note obvious maintenance problems such as broken insulators or other damaged equipment.
- Any deficiencies identified during inspections shall be noted and repairs scheduled as soon as possible, with timing dependent on the severity of the problem, due diligence concerns (of both the Distributor and the Generator) and financial and material requirements. The Distributor shall be notified of any deficiencies involving critical protective equipment.
- The Distributor shall be provided with copies of all relevant inspection and repair reports that may affect the protection and performance of the Distributors' systems. The Distributor has the right to witness any relevant test being performed by the generator.

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### 3.6 Embedded Market Participant

An Embedded Market Participant shall provide the Distributor with proof of compliance of <u>IESO</u> registration Requirements, and appropriate Licences.

Where the Conditions of Service of this Distributor exceed the technical requirements of any other licence or participant obligations, these Conditions of Service shall take precedence.

The Embedded Market Participant must meet at a minimum, the standards as set out in these Conditions of Service in order to connect to the Distributors' distribution facilities.

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#### 3.7 Embedded Distributor

An Embedded Distributor shall provide the Distributor with proof of compliance of <u>IESO</u> and <u>OEB</u> registration Requirements, and appropriate Licences.

Where the Conditions of Service of this Distributor exceed the technical requirements of any other licence or participant obligations, these Conditions of Service shall take precedence.

The Embedded Distributor must meet at a minimum, the standards as set out in these Conditions of Service in order to connect to the Distributors' distribution facilities.

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#### 3.8 Miscellaneous Small Services

This section pertains to the supply of electrical energy for Street Lighting, Traffic Signals, Bus Shelters, Telephone Booths, Cable T.V. Amplifiers, Decorative Street Lighting, Bill Boards, and other similar small loads.

#### 3.8.1 General

At the discretion of the Distributor, the service voltage will be:

120/240 volts, single phase three wire or 120 volts, single phase two wire or 347/600V three phase, four wire

The method and location of the supply will vary based on the conditions present on the Distributors' plant, and will be established for each application through consultation with the Distributor.

Where specified by the Distributor during the Early Consultation process, the Customer will provide underground ducts to the Distributor's specifications.

The Owner shall be responsible for all costs associated with the supply and installation of service conductors

The Distributor at the Owners' expense will install required transformation.

Where at the discretion of the Distributor, a meter is not installed, energy consumption will based on the connected wattage and the calculated hours of use.

Prior to energization of a service the Distributor will require notification from the <u>ESA</u> that the installation has been inspected and approved for connection.

### 3.8.2 Early Consultation

The Owner shall supply a completed <u>Electrical Planning Requirements Form</u> to the Distributor well in advance of installation commencement to allow the Distributor time for proper planning, ordering of equipment etc. Information required includes:

- Required in-service date
- Requested Service Entrance Capacity and voltage rating of the service entrance equipment
- Locations of other services, gas, telephone, water and cable TV
- Survey plan and site plan indicating the proposed location of the service equipment with respect to public rights-of way and lot lines.

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#### 3.8.3 Street Lighting

Town street-lighting that is designed, installed, and maintained by the Distributor shall be fully funded by the Municipality to ensure adherence to the <u>Affiliate Relationship Code</u> and the Distributors' Licence.

#### 3.8.4 Traffic Signals

Traffic Signals and Crosswalk Lights are owned and maintained by the applicable road authority.

#### 3.8.5 Bus Shelters

Bus Shelter Lighting is owned and maintained by the Customer.

#### 3.8.6 Decorative Street Lighting

Such installations could be lighting for festive occasions or "neighbourhood character" street-scaping and will be maintained by the Customer.

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#### SECTION 4 GLOSSARY OF TERMS

- "Conditions of Service" means the document developed by the distributor in accordance with subsection 2.3 of the <u>Distribution System Code</u>, that describes the operating practices and connection rules for the distributor:
- "Condominiums" are located on common land, which is the property of a condominium corporation or is owned by the Owner of all of the units (rental property). These units usually front onto internal roads that are also privately owned;
- **"Condominium Development"** is a structure or complex of structures each containing more than two residential units. A single residential customer would occupy each unit and have direct outside access at ground level:
- "Connection" means the process of installing and activating connection assets in order to distribute electricity;
- "Connection Agreement" means an agreement entered into between a distributor and a person connected to its distribution system that delineates the conditions of the connection and delivery of electricity to or from that connection;
- "Connection assets" means that portion of the distribution system used to connect a customer to the existing main distribution system, and consists of the assets between the point of connection on a distributors' main distribution system and the ownership Demarcation Point with that customer;
- **"Consumer"** means a person who uses, for the person's own consumption, electricity that the person did not generate;
- "Customer" means a person that has contracted for or intends to contract for connection of a building or an embedded generation facility. This includes developers of residential or commercial sub-divisions;
- "Demand meter" means a meter that measures a consumers' peak usage during a specified period of time;
- **"Demarcation Point"** means the point at which the obligation of the Distributor ends and those of the Customer begin for the purposes of maintenance and repair of the distribution service;
- "Disconnection" means a deactivation of connection assets, which results in cessation of distribution services to a consumer;
- "Distribute", with respect to electricity, means to convey electricity at voltages of 50 kilovolts or less;
- "Distribution losses" means energy losses that result from the interaction of intrinsic characteristics of the distribution network such as electrical resistance with network voltages and current flows;
- "Distribution loss factor" means a factor(s) by which metered loads must be multiplied such that when summed equal the total measured load at the supply point(s) to the distribution system.;

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- "Distribution services" means services related to the distribution of electricity and the services the Board has required distributors to carry out.
- **'Distribution system / plant'** 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 a 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;
- "Electricity Act" means the Electricity Act, 1998, S.O. 1998, c.15, Schedule A;
- "Energy Competition Act" means the Energy Competition Act, 1998, S.O. 1998, c. 15;
- **"Electrical Safety Authority"** or "**ESA**" means the person or body designated under the *Electricity Act* regulations as the Electrical Safety Authority;
- **"Embedded Distributor"** means a distributor who is not a wholesale market participant and that is provided electricity by a host distributor;
- **"Embedded Generation Facility"** means a generator whose generation facility is not directly connected to the IESO-controlled grid but instead is connected to a distribution system;
- "Embedded Load Displacement Generation Facility" means an embedded generation facility connected to the customer side of the revenue meter where the generation facility does not inject electricity into the distribution system for the purpose of sale;
- **"Embedded Market Participant"** means a consumer who is a wholesale market participant whose facility is not directly connected to the IESO-controlled grid but is connected to a distribution system;
- **"Emergency"** means any abnormal system condition that requires remedial action to prevent or limit loss of a distribution system or supply of electricity, or that could adversely affect the reliability of the electricity system;
- **"Emergency backup generation facility"** means a generation facility that has a transfer switch that isolates it from a distribution system;
- **"Enhancement"** means a modification to an existing distribution system that is made for purposes of improving system operating characteristics such as reliability or power quality or for relieving system capacity constraints resulting, for example, from general load growth;

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- **"Expansion"** means an addition to a distribution system in response to a request for additional customer connections that otherwise could not be made; for example, by increasing the length of the distribution system;
- **'Four-quadrant Interval Meter'** means an interval meter that records power injected into a distribution system and the amount of electricity consumed by the customer;
- "Generate", with respect to electricity, means to produce electricity or provide ancillary services, other than ancillary services provided by a transmitter or distributor through the operation of a transmission or distribution system;
- "Generation Facility" means a facility for generating electricity or providing ancillary services, other than ancillary services provided by a transmitter or distributor through the operation of a transmission or distribution system, and includes any structures, equipment or other things used for that purpose;
- "Generator" means a person who owns or operates a generation facility;
- "Geographic Distributor" with respect to a load transfer, means the distributor that is licensed to service a load transfer customer and is responsible for connecting and billing the load transfer customer;
- "Good Utility Practice" means any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry in North America during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good practices, reliability, safety and expedition. Good utility practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in North America;
- "Holiday" means a Saturday, Sunday, statutory holiday, or any day as defined in the Province of Ontario as a legal holiday;
- "IESO" means the Independent Electricity System Operator established under the Electricity Act;
- "IESO-Controlled Grid" means the transmission systems with respect to which, pursuant to agreements, the IESO has authority to direct operation;
- "Interval meter" means a meter that measures and records electricity use on an hourly or sub-hourly basis;
- "Large Embedded Generation Facility" means an embedded generation facility with a name-plate rated capacity of 10MW or more;
- "Lies Along" means a property can be connected to the distributor distribution system without an expansion or enhancement, and meets the conditions listed in the Conditions of Service of the distributor who owns or operates the distribution line.

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- "Load Transfer" means a network supply point of one distributor that is supplied through the distribution network of another distributor and where this supply point is not considered a wholesale supply or bulk sale point;
- "Load Transfer Customer" means a customer that is provided distribution services through a load transfer;
- "Market Rules" means the rules made under section 32 of the *Electricity Act*;
- "Measurement Canada" means the Special Operating Agency established in August 1996 by the *Electricity* and Gas Inspection Act, 1980-81-82-83, c. 87., and Electricity and Gas Inspection Regulations (SOR/86-131);
- "Medium Sized Embedded Generation Facility" means an embedded generation facility with a nameplate rated capacity of less than 10 MW and:
  - a) more than 500 kW in the case of a facility connected to a less than 15kV line;
  - b) more than 1 MW in the case of a facility connected to a 15 kV or greater line;
- "Meter Service Provider" means any entity that performs metering services on behalf of a distributor, generator, or registered market participant;
- "Meter Installation" means the meter and, if so equipped, the instrument transformers, wiring, test links, fuses, lamps, loss of potential alarms, meters, data recorders, telecommunication equipment and spin-off data facilities installed to measure power past a meter point, provide remote access to the metered data and monitor the condition of the installed equipment;
- "Metering Services" means installation, testing, reading and maintenance of meters;
- "Micro Embedded Load Displacement Generation Facility" means an embedded load displacement generation facility with a name-plate rated capacity of 10 kW or less;
- "Ontario Electrical Safety Code" means the code adopted by O. Reg. 164/99 as the Electrical Safety Code;
- "Ontario Energy Board Act" means the Ontario Energy Board Act, 1998, S.O. 1998, c.15, Schedule B;
- "Operational Demarcation Point" means the physical location at which a distributors' responsibility for operational control of distribution equipment including connection assets ends at the customer;
- "Ownership Demarcation Point" means the physical location at which a distributors' ownership of distribution equipment including connection assets ends at the customer;
- "Physical Distributor" with respect to a load transfer, means the distributor that provides physical delivery of electricity to a load transfer customer, but is not responsible for connecting and billing the load transfer customer directly;
- **"Point of Supply"** with respect to an embedded generation facility, means the connection point where electricity produced by the generation facility is injected into a distribution system;

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- "Rate" means any rate, charge or other consideration, and includes a penalty for late payment;
- "Rate Handbook" means the document approved by the Board that outlines the regulatory mechanisms that will be applied in the setting of distributor rates;
- "Regulations" means the regulations made under the Act or the Electricity Act;
- "Retail", with respect to electricity means,
  - a) To sell or offer to sell electricity to a consumer
  - b) To act as agent or broker for a retailer with respect to the sale or offering for sale of electricity, or
  - c) To act or offer to act as an agent or broker for a consumer with respect to the sale or offering for sale of electricity.
- **'Retail Settlement Code'** means the code approved by the Board and in effect at the relevant time, which, among other things, establishes a distributors' obligations and responsibilities associated with financial settlement among retailers and customers and provides for tracking and facilitating customer transfers among competitive retailers;
- "Retailer" means a person who retails electricity;
- "Service Area" with respect to a distributor, means the area in which the distributor is authorized by its license to distribute electricity;
- "Small Embedded Generation Facility" means an embedded generation facility which is not a microembedded generation facility with a name-plate rated capacity of 500 kW or less in the case of a facility connected to a less than 15 kV line and 1MW or less in the case of a facility connected to a 15 kV or greater line;
- "Total losses" means the sum of distribution losses and unaccounted for energy;
- "Townhouses" are usually a free hold property, the land is owned by the individual Owners of each unit, fronting onto a municipal street;
- "Townhouse Development" is a structure or complex of structures each containing more than two residential units. A single residential customer would occupy each unit, and have direct outside access at ground level;
- "Transmission System" means a system for transmitting electricity, and includes any structures, equipment or other things used for that purpose;
- "Transmission System Code" means the Board approved code that is in force at the relevant time, which regulates the financial and information obligations of the Transmitter with respect to its relationship with customers, as well as establishing the standards for connection of customers to, and expansion of a transmission system;
- "Transmit" with respect to electricity, means to convey electricity at voltages of more than 50 kilovolts;

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- "Transmitter" means a person who owns or operates a transmission system;
- "Unaccounted-for Energy" means all energy losses that cannot be attributed to distribution losses. These include measurement error, errors in estimates of distribution losses and un-metered loads, energy theft and non-attributable billing errors;
- "Un-metered loads" means electricity consumption that is not metered and is billed based on estimated usage;
- "Validating, Estimating and Editing (VEE)" means the process used to validate, estimate and edit raw metering data to produce final metering data or to replicate missing metering data for settlement purposes;
- "Wholesale Market Participant" means a person that sells or purchases electricity or ancillary services through the IESO-administered markets;

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### **SECTION 5 APPENDICIES**

# **Electrical Planning Requirements Document**

**Electric Service Meter Base/ Service Verification Form** 

**Contact Information** 

**Deposit Policy** 

**Disconnection Policy** 

**Collection Policy** 

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### Cornerstone Hydro Electric Concepts Association Inc.



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#### Cornerstone Hydro Electric Concepts Association Inc.



#### **Electrical Planning Requirements**

It is essential that the following information be provided to:

- a) enable an assessment to be made on the impact of the proposed project on the Electrical Distribution System.
- b) enable the Distributor to prepare pertinent information for the developer.

Please supply answers to the following questions as soon as possible as electrical planning cannot proceed until the Distributor has reviewed this information.

Preliminary electrical site plan drawings are to be submitted together with this form. Electrical drawings are to be submitted to the Distributor for approval prior to any related job tenders or the commencement of any electrical construction. The drawings shall be drawn to a scale usable by the Distributor, shall show local pole locations, proposed transformer location, proposed electrical room/metering location and show how access to the metering would be gained (i.e.: the path to the metering).

Electrical site plan drawings are to be submitted to the Distributor on one (1) Paper copy and in an electronic format as approved by the Distributor.

Project Location: (Municipal Address)		
Name of Project:		
Name of Applicant:		
Address:		
Contact Name:		
Address:		
TO 3.6 '1		
Telephone:         ( )         Fax: _ ( )		
Service Classification (E as many as apply):	Service Entrance Switchboard with Utility ☐ Yes ☐ No CT and PT Compartment	
☐ Residential		
☐ General Service < 50kW	Capacity of Main Service (in Amperes):	
☐ General Service > 50kW	Maximum rated capacity:	
☐ General Service >500kW		
☐ Unmetered os Miscellaneous Load	Estimated Connected Load - Demand in kW:	
☐ Temporary Service	Maximum initial Demand:kW	
	Maximum Future Demand:kW	
What service voltage is required (🔀 one only):		
☐ 120/240 Volt Single Phase	Metering Type (☑ one only):	
☐ 120/208 Volt Three Phase	☐ Single Meter	
☐ 347/600 Volt Three Phase	☐ Multiple Meters	
☐ Primary	Quantity of Meter installations	
	100A or less:	
Required In-Service Date:	101A to 200A:	
Month / Day / Year/	more than 200A:	
Comments: Please use the back of this form for comments		
Signed:	Date:	
(Representative of Applicant) Name:	Title:	



#### Cornerstone Hydro Electric Concepts Association Inc.



### **Electric Service Meter Base/ Billing Address Verification Form**

This form <u>must</u> be completed by the Owner and/or their Electrical Contractor if applicable prior to service connection.

Electric Service Municipal Address:	
Name of Owner:	
Telephone: ( )	Fax: _ ( )
Name of Contractor:	
Telephone: ( )	Fax: _( )
n area (A) provided below, carefully sketch the Front View latch the corresponding (B) <u>BILLING ADDRESS</u> for each	
(A) FRONT VIEW OF ELECTRIC METER BASE(S)	(B) BILLING ADDRESS
	1)
	2)
	3)
	4)
	5)
	6)
	5)
	7)
	8)
	9)
	10)
	11)
We the undersigned, acknowledge the information provided	d above has been verified and is accurate.
P. V. A. V	
gnature of Owner:	Date:



### Cornerstone Hydro Electric Concepts Association Inc.



### **Contact Information**

L	ocal Distribution Company	Contact Phone Number	
	/ellington Hydro Ltd.		
	ED-2002-0498	Phone: (519) 843-2900	
COLLUS	Power Corp.	Phone: (705) 445-1800	
Licence #	ED-2002-0518	-Friorie. (703) 443-1600	
<b>Grand Va</b>	alley Energy Inc.	Phone: (519) 928-3112	
Licence #	ED-2002-0512	-Priorie. (519) 926-5112	
Hydro 20	00	Phone: (613) 679-4093	
Licence #	ED-2002-0542	1 110110. (010) 070 1000	
Innisfil H	ydro Distribution Systems Ltd.	-Phone: (705) 431-6870	
Licence #	ED-2002-0520	1 110110. (100) 101 0010	
Lakefron	t Utilities Inc.	Phone: (905) 372-2193	
Licence #	ED-2002-0545	(000) 0. = = 100	
Lakeland	Power Distribution Ltd.	Phone: (705) 789-5442	
Licence #	ED-2002-0540	1 110110. (1 00) 1 00 0 1 12	
Midland I	Power Utility Corporation	-Phone: (705) 526-9361	
Licence #	ED-2002-0541		
Orangevi	ille Hydro Ltd.	-Phone: (519) 942-8000	
Licence #	ED-2002-0500		
Orillia Po	ower	Phone: (705) 326-2495	
Licence #	ED-2002-0530	( ,	
	und Power Corporation	-Phone: (705) 746-5866	
Licence #	ED-2003-0006		
Rideau S	t. Lawrence Distribution Inc.	Phone: (613) 925-3851	
	ED-2003-0003	1 1101101 (010) 020 0001	
Wasaga I	Distribution Inc.	Phone: (705) 429-2517	
Licence #	ED-2002-0544	, ,	
Wellingto	on North Power Inc.	Phone: (519) 323-1710	
Licence #	ED-2002-0511		
Westario	Power Inc.	Phone: (519) 396-3471	
Licence #	ED-2002-0515	Toll Free: 1-866-978-2746	
	ast Huron Energy Inc.	Phone: (519) 524-7371	
Licence #	ED-2002-0510		
	ck Hydro Services Inc.	Phone: (519) 537-3488	
Licence #	ED-2003-0011		

Note: Licence Numbers published by OEB as of May 1, 2003



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#### Cornerstone Hydro Electric Concepts Association Inc.



Policy 6.0	Version 3.0
	Created: June, 2002 Latest Revision: June 21, 2004

#### 6.0.1 PURPOSE:

This policy describes the terms and conditions distributors will use for collection, maintaining and returning customer security deposits while complying with the applicable legislation and codes.

In accordance with the Distribution System Code and Retail Settlement Code it must include:

- a list of all potential types/forms of security accepted;
- a detailed description of how the security is calculated;
- limits on the amount of security required;
- the planned frequency, process and timing of updating security;
- a description of how interest payable to customers is determined;
- criteria customer must meet to have security deposit waived and/or returned;

and

methods of enforcements where a security deposit is not paid.

#### 6.0.2 POLICY STATEMENT:

A distributor may use any risk mitigation options available to manage customer non-payment risk. A distributor shall not discriminate among customers with similar risk profiles or risk related factors except where expressly permitted under the Distribution System Code.

A distributor will comply with the deposit requirements as defined in the Distribution System and Retail Settlement Codes but may waive these requirements in favour of a customer or potential customer.

#### 6.0.3 FORM OF SECURITY DEPOSIT:

#### Residential

The form of payment of a security deposit for a residential customer shall be cash or cheque at the discretion of the customer or such other form as is acceptable to the distributor.



Cornerstone Hydro Electric Concepts Association Inc.



#### **General Service**

The security deposit will be in the form of cash, cheque or an automatically renewing, irrevocable letter of credit from a bank for non residential customers.

The distributor may also accept other forms of security.

The distributor shall permit customer to pay security deposit in 4 equal monthly instalments, the first instalment being due on the implementation of an implied contract or the signing of service agreement. The customer may pay the security deposit over a shorter period of time.

The reasons for requiring the security deposit must be disclosed to the customer.

#### 6.0.4 METHOD OF CALCULATION AND LIMIT OF SECURITY DEPOSIT:

The maximum amount of the security deposit that a customer is required to pay is calculated using:

- the billing cycle factor times the estimated bill based on the customer's average monthly load with the distributor in the most recent 12 consecutive months within the last two years.
- Where relevant usage information is not available for the customer for 12 consecutive months within the past two years or the billing system is not capable of making the calculation, the customer's average monthly load shall be based on a reasonable estimate made by the distributor.

Where a customer has a payment history which discloses more than one disconnection notice in a relevant 12 month period, the distributor may use the customer's highest actual or estimated monthly load for the most recent 12 consecutive months within the past 2 years for the purposes of calculating the maximum amount of the security deposit.

For a low-volume consumer or designated consumer the price estimate used in calculating competitive electricity costs shall be the same as the price used by the IMO for the purpose of determining maximum net exposures and prudential support obligations for distributors.

If a non-residential customer with a >50kW demand rate can provide a credit rating from a recognized credit rating agency, the maximum amount of the security deposit required by the distributor shall be reduced in accordance with the following table:



Cornerstone Hydro Electric Concepts Association Inc.



**Credit Rating** 

(Using Standard and Poor's Rating Terminology)
Allowable Reduction in Security Deposit

AAA- and above or equivalent 100%
AA-, AA, AA+ or equivalent 95%
A-, From A, A+ to below AA or equivalent 85%
BBB-, From BBB, BBB+ to below A or equivalent 75%
Below BBB- or equivalent 0%

# 6.0.5 PLANNED FREQUENCY, PROCESS AND TIMING OF UPDATING SECURITY DEPOSITS:

The distributor shall review every customer's security deposit at least once every calendar year to determine whether the entire amount of the security deposit is to be returned to the customer or adjusted based on a re-calculation of the maximum amount of the security deposit.

When the distributor determines in conducting a review that the maximum amount of the security deposit is to be adjusted upward, the distributor may require the customer to pay this additional amount at the same time the customer's next regular bill comes due.

A customer may demand in writing, no earlier than 12 months after payment of a security deposit or the making of a prior demand for a review, that the distributor undertake a review to determine whether the amount of the security deposit is to be returned to the customer or adjusted based on a re-calculation of the maximum amount of the security deposit. If some or all of the security deposit is to be returned to the customer, the distributor shall promptly return this amount.

Any security deposit received from the customer upon closure of the customer account, shall be applied to the final bill prior to change in service and can be used to off-set other amounts owing by the customer to the distributor. The balance shall be returned within six weeks of closure of the account.

#### **6.0.6 INTEREST PAYABLE:**

The interest shall accrue monthly on security deposits made by cash or cheque commencing on receipt of the total deposit. The interest shall be at the Prime Business Rate as published on the Bank of Canada website less 2 percent, updated quarterly. The interest accrued shall be paid at least once every 12 months or on return or application of the security deposit or closure of the account, whichever comes first, and may be credited to the account.



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# 6.0.7 CRITERIA REQUIRED FOR WAIVERED AND/OR RETURN OF SECURITY DEPOSIT:

The distributor reserves the right to collect a security deposit from a customer that is not billed by a competitive retailer under retailer-consolidated billing unless the customer has a good payment history of:

- 1 year in the case of a residential customer,
- 5 years in the case of a non-residential customer in < 50 kW demand rate class, or
- 7 years in the case of a non-residential customer in ay other rate class.

The time period that makes up the good payment history must be the most recent period of time and some of the time period must occur in the previous 24 months.

A customer is deemed to have a good payment history, unless, during the relevant time period the customer has received:

- more than one disconnection notice from the distributor, or
- more than one cheque given to the distributor by the customer has been returned for insufficient funds, or
- more than one pre-authorized payment to the distributor has been returned for insufficient funds, or
- a disconnection/collection trip has occurred.

The distributor shall not require a security deposit if the customer provides the following prior to the implementation of service:

- the customer provides a letter from another distributor or gas distributor in Canada confirming a good payment history for the most recent relevant time period, some of this time period must have incurred within the last 24 months,
- a customer, other than a customer in a >5,000 kW demand rate class, that provides a satisfactory credit check made at the customer's expense,
- If a non-residential customer with a >50kW demand rate can provide a credit rating from a recognized credit rating agency, the maximum amount of the security deposit required by the distributor shall be reduced in accordance with the following table:

#### **Credit Rating**

(Using Standard and Poor's Rating Terminology)
Allowable Reduction in Security Deposit



Cornerstone Hydro Electric Concepts Association Inc.



AAA- and above or equivalent 100%
AA-, AA, AA+ or equivalent 95%
A-, From A, A+ to below AA or equivalent 85%
BBB-, From BBB, BBB+ to below A or
equivalent 75%
Below BBB- or equivalent 0%

However, when the distributor determines in conducting a review that the maximum amount of the security deposit is to be adjusted upward, the distributor may require the customer to pay this additional amount at the same time the customer's next regular bill comes due.

In the case of a customer in a >5,000kW demand rate class, where the customer is now in a position that it would be exempt from paying a security deposit, however, had previously paid a security deposit to the distributor, the distributor is only required to return 50% of the security deposit.

### 6.0.8 METHOD OF ENFORCEMENT WHERE SECURITY DEPOSIT IS NOT PAID:

Failure to pay the security deposit as required will result in the immediate implementation of the distributor's collection policy process which may lead to the discontinuation of electrical service.

#### 6.0.9 **DEFINITIONS**:

"The Billing Cycle Factor" is 2.5 if the customer is billed monthly, 1.75 if the customer is billed bi-monthly and 1.5 if the customer is billed quarterly.

"Disconnection/Collection Trip" is a visit to a customer's premises by an employee or agent of the distributor to demand payment of an outstanding amount or to shut off or limit distribution of electricity of the customer failing payment.

### 6.0.10 RESPONSIBILITIES:

The management of the company is responsible for ensuring that the corporation is protected from undue risk of bad debt.

#### 6.0.11 REFERENCES:

The Electricity Act, 1998 - Province of Ontario, Ministry of Energy, Science and Technology

Market Rules - The Independent Electricity Market Operator

Distribution System Code - The Ontario Energy Board

Retail Settlement Code - The Ontario Energy Board

Electricity Distribution Rates Handbook - The Ontario Energy Board



### Cornerstone Hydro Electric Concepts Association Inc.



Policy 8.0 Version 3.0

DISCONNECTION/RECONNECTION

Created: September, 2002

# DISCONNECTION/RECONNECTION OVERVIEW

## Latest Revision: June 21, 2004

### 8.0.1 PURPOSE:

The detailed policies in this set are intended to establish and document a process that will provide guidance to the LDC's management and staff to help them make operational decisions when disconnecting and/or reconnecting the electrical service of a consumer.

### 8.0.2 POLICY STATEMENT:

The LDC will ensure that it has developed a physical and business process for disconnection ensuring safety and reliability as a primary requirement. The LDC will not be held liable for any damages or loss as the result of disconnection or limiting of service.

The LDC shall follow the regulation and direction set out in the Distribution Rate Handbook Chapter 9 when implementing the disconnection and/or reconnection process.

- A disconnection notice will be issued in writing not less than seven days after the
  date specified on the bill as the due date. Notice must be given by hand delivery or
  by registered mail. Both the customer and tenants of the customer will receive seven
  days' notice before cut-off.
- Prior to the disconnection of the electricity service, a representative of the utility will
  make reasonable efforts to establish direct contact with the customer. The utility
  should also where possible, notify the occupants of each separately occupied unit in
  the premises. The electricity service will not be disconnected by reason of the nonpayment of bills until seven days after a disconnection notice has been given to the
  customer and as set out in Chapter 9 of the Distribution Rate Handbook.
- Where the electricity service has been disconnected on order to collect the account and then reconnected, a reconnection of service charge may be applied to the customers account.

The LDC reserves the right to physically disconnect or limit the amount of electricity that a customer can consume.

- 8.1.1 Disconnection/Reconnection
- 8.1.2 Seasonal Connections
- 8.1.3 Disconnection/Reconnection by Request
- 8.1.4 Safety and Reliability
- 8.5 Unauthorized use of Electricity

#### 8.0.3 DEFINITIONS:

**Current Limiting Device** is a device that will limit the electrical current available to the customer.



### Cornerstone Hydro Electric Concepts Association Inc.



Customer and Consumer will be understood herein as one and the same.

**Disconnection** is when the LDC discontinues the delivery of electricity to a property and/or premise.

**Reconnection** is when a property or premise has electrical service energized or reestablished by the LDC.

**Security Deposit** is an amount collected by the LDC and is held by the distributor to ensure that all monies owed to the Corporation are collected at the time of the final billing. Interest payments will be applied at least annually on all cash deposits.

### 8.0.4 RESPONSIBILTIES:

The management of the company is responsible for ensuring that the corporation is protected from undue risk of bad debt.

### 8.0.5 REFERENCES:

The Electricity Act, 1998 - Province of Ontario, Ministry of Energy, Science and Technology

Electricity Distribution Rate Handbook - The Ontario Energy Board

Retail Settlement Code - The Ontario Energy Board

Distribution System Code - The Ontario Energy Board

Electricity Gas and Inspection Act - Government of Canada

Condition of Service – The Distributor



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Policy 8.1	Version 3.0
DISCONNECTION/RECONNECTION	Created: September, 2002 Latest Revision: June 21, 2004

### **8.1.1 PURPOSE:**

This policy confirms that the LDC has established a process for the disconnection and/or reconnection of a property and/or premise, and the specific timing and means of notification consistent with the Electricity Act, 1998.

The detailed policies in this set are intended to establish and document a process that will provide guidance to the LDC's management and staff, that will help them make operational decisions to disconnect and/or reconnect the electrical service of a consumer.

### **8.1.2. POLICY STATEMENT:**

The LDC shall follow the regulation and direction set out in the Distribution Rate Handbook Chapter 9 when implementing disconnect or reconnection process.

- A disconnection notice will be issued in writing not less than seven days after the
  date specified on the bill as the due date. Notice must be given by hand delivery or
  by registered mail. Both the customer and tenants of the customer will receive seven
  days' notice before disconnection.
- Prior to the disconnection of the electricity service, a representative of the utility will
  make reasonable efforts to establish direct contact with the customer. The utility
  should also where possible, notify the occupants of each separately occupied unit in
  the premises. The electricity service will not be disconnected by reason of the nonpayment of bills until seven days after a disconnection notice has been given to the
  customer and as set out in Chapter 9 of the Distribution Rate Handbook.
- Where the electricity service has been disconnected on order to collect the account and then reconnected, a reconnection of service charge may be applied to the customers account.

The LDC will ensure that it has developed a physical and business process for disconnection and/or reconnection ensuring safety and reliability as a primary requirement.

The LDC shall treat all customers in a non-discriminatory fashion when disconnecting and/or reconnecting an electrical service.

The LDC shall have the right to limit or discontinue service <u>without further notification</u> to the customer for payment default, including default of payment arrangements, bankruptcy, receivership, or property foreclosure.

The LDC shall have the right to limit or discontinue service for non-payment of a security deposit from customers that have defaulted on payment arrangements.

The LDC shall have the right to refuse the reconnection if there are any outstanding amounts owed by the consumer or if the service is found to have an adverse effect on the safety and/or reliability of the system.

The LDC shall have the right to discontinue electrical service of a consumer if the service causes safety or reliability risk to the distributor's system.



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The LDC shall insist that electrical services that have been disconnected for six (6) or more months have an inspection certificate from the Electrical Safety Authority prior to reconnection. Not withstanding the LDC reserves the right to require, an Electrical Safety Authority inspection certificate at any time prior to reconnection at the expense of the customer.

The LDC shall insist that a responsible representative of the property be present in order for reconnection of service to be established.

#### 8.1.3 RESPONSIBILITIES:

The management of the company is responsible for ensuring that the corporation is protected from undue risk of bad debt.

### 8.1.4 REFERENCES:

The Electricity Act, 1998 - Province of Ontario, Ministry of Energy, Science and Technology

Retail Settlement Code - The Ontario Energy Board

Electricity Distribution Rates Handbook - The Ontario Energy Board

Distribution System Code - The Ontario Energy Board

Electricity Gas and Inspection Act - Government of Canada

Condition of Service - The Distributor



### Cornerstone Hydro Electric Concepts Association Inc.



Policy 8.3	Version 3.0
DISCONNECTION/RECONNECTION BY	Created: September, 2002
REQUEST	Latest Revision: June 21, 2004

### 8.3.1 PURPOSE:

This policy confirms that the LDC has established a process for the disconnection and/or reconnection of an electrical service and may require a written request from the consumer.

### 8.3.2 POLICY STATEMENT:

The LDC shall respond to a customer's request for a disconnection and reconnection of an electrical service in a prompt and efficient manner.

The LDC shall have the right to refuse the reconnection of and electrical service if there is an outstanding amount of money owed by the consumer or if the connection is found to have an adverse effect on the safety and/or reliability of the distribution system.

The LDC shall insist that electrical services that have been disconnected for six (6) or more months have an inspection certificate from the Electrical Safety Authority prior to reconnection. Not withstanding the LDC reserves the right to require an Electrical Safety Authority certificate at any time prior to reconnection at the customer expense.

The LDC shall insist that a responsible representative of the property be present when electrical service is energized or reconnected.

#### 8.3.3 RESPONSIBILITIES:

The management of the company is responsible for ensuring that the corporation is protected from undue risk of bad debt.

### 8.3.4 REFERENCES:

The Electricity Act, 1998 - Province of Ontario, Ministry of Energy, Science and Technology

Retail Settlement Code - The Ontario Energy Board

Electricity Distribution Rates Handbook - The Ontario Energy Board

Distribution System Code - The Ontario Energy Board

Electricity Gas and Inspection Act - Government of Canada

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### Cornerstone Hydro Electric Concepts Association Inc.



Policy 8.4.0	Version 3.0
SAFETY AND RELIABILITY	Created: September, 2002 Latest Revision: June 21, 2004

### **8.4.1 PURPOSE:**

This policy confirms that the LDC has established a process for ensuring the safety and reliability of the distribution system.

### **8.4.2 POLICY STATEMENT:**

The LDC shall respond to and take reasonable steps to investigate all consumer power quality complaints and report to the consumer on the results of the investigation.

The LDC may direct a consumer connected to its distribution system to take corrective or preventive action on the consumer's electric system when there is a direct hazard to the public or the consumer is causing or could cause adverse effects on the reliability of the LDC's distribution system.

The LDC may require that any consumer conditions that adversely affect the distribution system be corrected immediately by the consumer and at the consumer's expense.

The LDC shall insist that electrical services that have been disconnected for six (6) or more months have an inspection certificate from the Electrical Safety Authority prior to reconnection. Not withstanding the LDC reserves the right to require an Electrical Safety Authority certificate at any time prior to reconnection at the customer expense.

The LDC shall have the right to refuse the reconnection of an electrical service to their distribution system if the connection is found to have an adverse effect on the safety and/or reliability of the system.

The LDC shall have the right to disconnect the electrical service of a consumer if the service causes safety or reliability risk to the distributor's system.

The LDC shall insist that a responsible representative of the property be present when electrical service is energized or reconnected.

### 8.4.3 RESPONSIBILITIES:

The management of the company is responsible for ensuring that the service quality of the distribution system is safe and reliable.

### 8.4.4 REFERENCES:

The Electricity Act, 1998 – Province of Ontario, Ministry of Energy, Science and Technology Retail Settlement Code – The Ontario Energy Board

Electricity Distribution Rates Handbook – The Ontario Energy Board

Distribution System Code – The Ontario Energy Board

Electricity Gas and Inspection Act - Government of Canada

Condition of Service – The Distributor



### Cornerstone Hydro Electric Concepts Association Inc.



Policy 8.5.0	Version 3.0
UNAUTHORIZED USE OF ELECTRICITY	Created: September, 2002 Latest Revision: June 21, 2004

### 8.5.1 PURPOSE:

This policy confirms that the LDC has established a process that management and staff can follow if it is discovered that there is unauthorized use of electricity.

### 8.5.2 POLICY STATEMENT:

The LDC shall use its discretion in taking action to mitigate unauthorized energy use. Upon identification of possible unauthorized energy use, the LDC shall notify, if appropriate, Measurement Canada, the Electrical Safety Authority, police officials, retailers that service the customers affected by the unauthorized energy use, or other entities.

The LDC shall monitor losses and unaccounted for energy use on an annual basis to detect any upward trends.

The LDC may recover from the parties responsible for the unauthorized energy use all energy and other applicable charges incurred by the distributor arising from the unauthorized energy use, including inspection, administration fees and repair costs.

### 8.5.3 RESPONSIBILITIES:

The management of the company is responsible for monitoring losses and unaccounted for energy.

### 8.5.4 REFERENCES:

The Electricity Act, 1998 – Province of Ontario, Ministry of Energy, Science and Technology

Retail Settlement Code - The Ontario Energy Board

Electricity Distribution Rates Handbook - The Ontario Energy Board

Distribution System Code - The Ontario Energy Board

Electricity Gas and Inspection Act - Government of Canada

Conditions of Service - The Distributor



### Cornerstone Hydro Electric Concepts Association Inc.



Policy 7.0	Version 3.0
COLLECTION OVERVIEW	Created: September, 2002 Latest Revision: June 21, 2004

### **7.0.1 PURPOSE:**

The purpose of this policy is to establish a process to ensure money owed to the LDC by consumers is collected.

### 7.0.2 POLICY STATEMENT:

The LDC shall follow the regulation and direction set out in the Distribution Rate Handbook Chapter 9 when implementing the collection process.

The LDC will collect all outstanding money owed from Customers and Retailers served by the LDC's distribution system in accordance with the principles defined in the *Electricity Act* (1998), the *Electricity Distribution Rate Handbook* and the *Retail Settlement Code*. The policies in this set are intended to provide guidance to the LDC's managers and staff, and to help them make operational decisions that are consistent with applicable codes and regulations.

- 7.1 Customer Collections
- 7.2 Retailer Collections

The LDC will collect all outstanding money owed from Customers and Retailers served by the LDC's distribution system in accordance with the principles defined in the *Electricity Act* 

### 7.0.3 DEFINITIONS:

**Licensed Competitive Retailer** is a company that has a valid electricity retailer's license from the Ontario Energy Board.

**Standard Service Supply Customer** is a company or person who purchases electricity at spot market price or statutory pricing from a LDC's distribution system as a direct pass through from the IMO.

Customer and Consumer will be understood herein as one and the same.

**Non-Competitive Charges** is made up of the Wholesale Market Service charge, the Debt Retirement charge, Transmission Connection charge, Transmission Network charge and Distribution charges.

**Distributor-Consolidated Billing** is when a retailer marketer who has signed contracts in the LDC service area and has opted for the distributor to do the billing and collection of the electricity commodity and all related non-competitive charges.

**Retailer-Consolidated Billing** is when the retail marketer opts to do the billing and collection of the electricity commodity and all related non-competitive charges.

**Split Billing** is when the retail marketer bills the customer for the electricity charges and the LDC bills for the customer for non-competitive, debt retirement and distribution charges. The retailer and the distributor shall each be responsible for the collection of their own accounts.



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Late Payment Charge is an OEB approved interest charge that is applied after a specified date or a due date on a customer's bill.

**Errors and Omissions Excepted** the LDC shall reserve the right to make adjustments to any bill issued in error either in whole or in part.

**Non-Payment Risk Mitigation** the LDC may use any risk mitigation options available to manage consumer non-payment risk.

### 7.0.4 COLLECTION PAYMENT METHODS:

The LDC may accept one or more of the following methods of payment but are not obligated to offer all methods:

Cash

Payment made through most Financial Institutions including telephone & computer banking Certified Cheque

Money Order or Bank Draft

Credit Card

Interac

Preauthorized Chequing

### 7.0.5 RESPONSIBILTIES:

The Board of Directors are responsible for the approval of the policies contained in this manual.

### 7.0.6 REFERENCES:

The Electricity Act, 1998 – Province of Ontario, Ministry of Energy, Science and Technology

Electricity Distribution Rate Handbook - The Ontario Energy Board

Retail Settlement - The Ontario Energy Board

Distribution System Code – The Ontario Energy Board

Electricity Gas and Inspection Act - Government of Canada



### Cornerstone Hydro Electric Concepts Association Inc.



Policy 7.1	Version 3.0
CUSTOMER COLLECTIONS	Created: September, 2002 Latest Revision: June 21, 2004

### **7.1.1 PURPOSE:**

This policy confirms that the LDC must be prudent in their collection process to protect the corporation from unpaid invoices. The detailed policies in this set are intended to establish and document a process that will provide guidance to the LDC's management and staff, to help them make operational decisions to ensure that monies owed to the LDC by the consumer or retailer are collected in a timely manner.

### 7.1.2 POLICY STATEMENT:

The LDC will take steps to collect the total amount for the customer's bill, if not paid within the time specified, which shall be a minimum of sixteen calendar days from the date of mailing or hand delivery of the bill. A collection of account charge may be made if a representative of the utility is dispatched to collect the account.

The customer shall be subject either to a collection of account charge or a reconnection charge in the event service has been interrupted in order to collect outstanding amounts owed in any billing period, unless partial payment of the account has been accepted by the LDC.

The LDC may apply more than one collection of account charge or reconnection charge in one billing period if a partial payment has been accepted through a collection trip.

The LDC shall begin the collection process immediately following the application of late payment charge.

The LDC shall treat all customers in the same rate class in a non-discriminatory fashion when collecting unpaid accounts.

The LDC shall have the right to limit or disconnect service for non-payment, theft of power and/or failing to keep payment arrangements.

The LDC shall reserve the right to make adjustments to any bill issued in error either in whole or in part.

### 7.1.3 RESPONSIBILITIES:

The management of the company is responsible for ensuring that the corporation is protected from undue risk of bad debt.

### 7.1.4 REFERENCES:

The Electricity Act, 1998 - Province of Ontario, Ministry of Energy, Science and Technology

Retail Settlement Code - The Ontario Energy Board

Electricity Distribution Rates Handbook - The Ontario Energy Board

Distribution System Code - The Ontario Energy Board

Electricity Gas and Inspection Act - Government of Canada



### Cornerstone Hydro Electric Concepts Association Inc.



Policy 7.2	Version 3.0
RETAILER COLLECTIONS	Created: September, 2002 Latest Revision: June 21, 2004

### 7.2.0 PURPOSE:

This policy describes the processes to collect outstanding balances from retailers who have signed sales agreements with consumers served by the LDC's distribution system and to ensure that the Retailer meets the prudential requirements based on the billing option selected and the Retailer's magnitude of financial exposure. This process also applies to collection of past due Retail settlement and market participant invoices.

### 7.2.1 POLICY STATEMENT:

The LDC requires Retailers to pay invoices on the due date as specified in the code.

The LDC reserves the right to refuse service transaction requests, requests for information, invoices or other transactions from retailers with whom the LDC does <u>not</u> have an up-to-date service agreement and/or financial security arrangements.

The LDC shall review the required level of deposit from a Retailer for customers served through Distributor Consolidated Billing on a quarterly basis as a minimum.

The LDC shall immediately notify the retailer the day after a settlement payment was due if funds were not received and work with the retailer to remedy the situation.

The LDC shall not access the funds available through the relevant security arrangement until five business days have elapsed.

The LDC shall issue to the Retailer a Notice of Payment Default prior to returning the consumer that is signed with said Retailer back to Standard Service Supply (SSS).

#### 7.2.2 RESPONSIBILITIES:

The management of the company is responsible for ensuring that prudential monitoring and payments from a Retailer are collected within the guidelines specified in the service agreement.

### 7.2.3 REFERENCES:

The Electricity Act, 1998 – Province of Ontario, Ministry of Energy, Science and Technology

Market Rules - The Independent Electricity Market Operator

Retail Settlement Code - The Ontario Energy Board

Electricity Distribution Rates Handbook - The Ontario Energy Board

Electricity Gas and Inspection Act - Government of Canada