TILLSONBURG HYDRO INC.

Powering your community

Conditions of Service

Prepared August 2014
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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 Distribution Licence issued to the Distributor by the OEB. Additionally, there are requirements imposed on the Distributor by the various codes referred to in the Licence and by the Electricity Act, the Ontario Energy Board Act and other provincial legislation.

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

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.

All operations performed by the Distributor and its agents shall be performed within the rules and regulations set out by the appropriate authorities including but not limited to: Electrical Safety Authority (ESA), Ministry of Labour, Ministry of Transportation, etc.

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, temporary power services and generation connections.

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 Safety 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:

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

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' plant that has been damaged through the Customers' action or neglect.

The supply of electricity or a service connection 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 Customer is responsible for selecting a qualified/competent contractor. Careful selection of a contractor can significantly affect the cost of a project. The Distributor shall be consulted prior to the selection of a mutually acceptable contractor.

The Customer maintains the responsibility to ensure that all work is done in accordance with the Distributor's design and technical standards and specifications.

The Distributor, at the expense of the Customer, reserves the right to inspect the work throughout the duration of the project, and the Contractor shall supply the Inspector such accommodations as the Inspector may require. The Inspector shall request that the Contractor stop work at any time the Inspector deems the Contractor is not proceeding in accordance with these "Conditions of Service". The Customer shall confer with the Distributor before work recommences to mitigate undue cost and construction delays for the project.

Customers may be required to pay Capital Contributions for the addition of new and upgraded electrical services. In some instances, an Economic Evaluation as defined in the Distribution System Code (DSC) may be required. Customers installing distributed generation may be required to pay for additions of new or upgraded Distributor electrical plant associated with the connection of the generation and the associated engineering studies.

1.2 Related Codes and Governing Laws

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

- *Electricity Act, 1998*
- *Ontario Energy Board Act, 1998*
- *Occupational Health and Safety Act*
- *Energy Consumer Protection Act, 2010*
- *Distribution Licence - Licence Numbers*
- *Affiliate Relationships Code*
- *Distribution System Code*
- *Retail Settlement Code*
- *Standard Service Supply Code*
- *Conservation and Demand Management Code*
- *Transmission System Code*
- *Ontario Regulation 22/04 - Electrical Safety Authority (ESA)*
- *Measurement Canada*
- *Electricity and Gas Inspection Act, 1985*
- *Municipal Freedom of Information and Protection of Privacy Act, R.S.O. 1990*
- *Accessibility for Ontarians with Disabilities Act. 2005*

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

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 Electrical Utility Safety Rules (IHSA formally EUS&A) (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 notice shall be provided to Customers as

required in the Distribution System Code and copies made available at the Distributor's office or 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 to recover costs 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. Please refer to the Contact Listing in the Appendices for phone number of the Distributor 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 (if available) from any person purporting to be an authorized agent or employee of the Distributor.

A Customer, who believes that they have suffered damages to their 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 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 the Ontario Energy Board. In accordance with the OEB dispute resolution process, The Ontario Energy Board will complete its review of the dispute within 150 days.

1.9 Service Quality Requirements

The level of service provided by the Distributor is defined in specific terms within Section 7 of the DSC, or as the DSC may be amended from time to time. The Distributor recognizes the requirements and will strive to meet or exceed these requirements and the associated reporting to the OEB. The reporting of these requirements forms public record available to the Distributor's Customers.

1.10 Liability

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

- Of the Distributor in providing distribution services to the Customer;
- Of the Customer in being connected to the Distributor's distribution system; or
- Of the Distributor or Customer in meeting their respective obligations under the Distribution System Code, their licenses and any other applicable law.

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

1.11 Force Majeure

Neither party shall be held to have committed an event of default in respect of any obligation under the Distribution System Code if prevented from performing that obligation, in whole or in part, because of a force majeure event.

Notwithstanding any of the foregoing, settlement of any strike, lockout, or labor dispute constituting a force majeure event shall be within the sole discretion of the party to the agreement involved in the strike, lockout, or labour dispute. The requirement that a party must use its best efforts to remedy the cause of the force majeure event, mitigate its effects, and resume full performance under the Distribution System Code shall not apply to strikes, lockouts, or labour disputes.

SECTION 2 DISTRIBUTION ACTIVITIES (GENERAL)

2.1 Connections

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 Section 3.

2.1.1 Obligations to Connect

As provided in Section 28 of the Electricity Act 1998 the Distributor has the Obligation to Connect any Building that 'lies along" its distribution system subject to conditions outlined in section 2.1.3. A building 'lies along" a distribution line if it can be connected to the Distributor distribution system without an expansion or enhancement.

A Building that appears to 'lie along' a distribution line may be refused connection to that line should the distribution line not have sufficient capacity for the requested connection. In such instances, the Distributor shall make an offer to connect which will include the cost of the enhancement.

As provided in Section 25.36 of the Electricity Act 1998 the Distributor shall connect a renewable energy generation facility to its distribution system in accordance to regulations, the market rules and any licence issued by the Board if requested and all regulations, market rules, orders or code have been met in respect to the connection.

Connection fees as noted within the Conditions of Service shall apply. (See sections 3.1.3, 3.1.4, 3.2.3, 3.2.4, 3.3.3, 3.3.4 3.4.3, 3.4.4, 3.5.1 & 3.8.1)

2.1.2 Offer to Connect

The Distributor will make an Offer to Connect to any Customer requesting a connection within the Distributors licensed territory. As required by the Distribution System Code, 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 and the receipt of all required information from the Customer.

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 Distribution System Code. If an expansion or enhancement of the distribution system is required to facilitate a connection, the Distributor may need to perform an Economic Evaluation to establish the capital contribution required from the Customer. The Customer should review the attached Distribution Connection Process for further information.

The Distributor may require a Customer proposing to install generation to pay the costs of electrical plant installed to facilitate the connection of the generation. Such capital contributions will be calculated using the guidelines set by the OEB in the Distribution System Code.

Reference: A Customer considering a generation project can find additional information on the technical and administrative requirements in the CHEC Generation Guide and Appendix E and Appendix F of the Distribution System Code. A copy of these documents can be obtained from your local utility upon request.

2.1.3 Connection Denial

The Distribution System Code in section 3.1 sets outs the conditions for a Distributor to deny connections. A Distributor is not obligated to connect a Customer 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 including the Ontario Electrical Safety Code.
- Violations of conditions in a Distributors' Licence, the Distributor's Conditions of Service, or the Customer's Connection Agreement.
- Use of a distribution system line for a purpose that it does not serve and that the Distributor does not intend to serve.
- 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
- Where the electrical connection to the distribution system does not meet the Distributor's design requirements
- Where the electrical connection violates the property rights of property owners or other agencies, such as railways, Ministries, or the Municipality

In addition to the above, the Distributor may deny connection to any Customer for any of the following reasons:

- Refusal by the Customer to sign any agreements required to be executed by the Customer under these Conditions of Service;'

- Failure to meet the Distributor's security deposit policy requirements as outlined in the Conditions of Service

The Distributor shall inform the person requesting the connection of the reason(s) 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 may be made.

2.1.4 Inspections before Connections

The Distributor has the right to request an inspection prior to any connection to ensure the connection meets the Distributor's design standards and requirements.

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 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 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. See *Public Service Works on Highways Act.*

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 may be required when 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

Standard Form of Contract - All Customers will be requested to complete and sign the standard form of contract to apply for a 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.

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

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

In all cases of special contracts, the terms and conditions of all regulations, conditions and charges as established by the Distributor shall apply to the Customer connection unless specifically noted in the special contract.

2.2 Disconnection

The Distributor shall not be liable for any damages or claims as a result of disconnection of service.

2.2.1 Refusal to Connect / Right to Disconnection

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

(a) contravention of the laws of Canada or the Province of Ontario including the Ontario Electrical Safety Code;

(b) violation of conditions in a Distributor's licence;

(c) materially adverse effect on the reliability or safety of the distribution system;

(d) imposition of an unsafe worker situation beyond normal risks inherent in the operation of the distribution system;

(e) a material decrease in the efficiency of the Distributor's distribution system;

(f) inability of the Distributor to perform planned inspections and maintenance;

(g) a materially adverse effect on the quality of distribution services received by an existing connection; and

(h) if the person requesting the connection owes the Distributor money for distribution services, or for non-payment of a security deposit.

(i) compliance with a court order

(j) by order of the Electrical Safety Authority or IESO

Disconnection of service shall follow the Distributor's Disconnection/Reconnection Policy.

2.2.2 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.

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

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 high degree of security of supply or power quality are responsible to provide their own back-up or standby facilities.

Customers requiring power for human life support equipment must provide their own equipment to ensure an uninterrupted supply of power. Customers on life support equipment are encouraged to contact the Distributor to inform them of their medical needs and the backup equipment which is in place.

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 claim and take any actions or legal proceedings for recovery or compensation as a result of costs due to inconvenience, disruption of schedule, and/or loss of efficiency or productivity of any nature whatsoever related to misidentification of power quality issues or outages by the customer or its contractor and/or subcontractors, suppliers, and/or or materialmen of any tier.

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 notify affected customers of the outage. The method of notification is at the discretion of the Distributor (i.e.: App, Social Media, etc.).

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).

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, generators and variable speed drives. In planning the installation of such equipment, the Customer is required to consult with the Distributor.

The following limits apply to users connected to systems where the rated voltage at the PCC (Point of Common Coupling) is 120 V to 69 kV.

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 Canadian Standards Association, C235. However, more sensitive electronic equipment such as computers can be

Maximum harmonic current distortion in percent of I_L						
Individual harmonic order (odd harmonics)						
I_{SC}/I_L	$3 \leq h < 11$	$11 \leq h < 17$	$17 \leq h < 23$	$23 \leq h < 35$	$35 \leq h \leq 50$	TDD
$< 20^c$	4.0	2.0	1.5	0.6	0.3	5.0
$20 < 50$	7.0	3.5	2.5	1.0	0.5	8.0
$50 < 100$	10.0	4.5	4.0	1.5	0.7	12.0
$100 < 1000$	12.0	5.5	5.0	2.0	1.0	15.0
> 1000	15.0	7.0	6.0	2.5	1.4	20.0
Even harmonics are limited to 25% of the odd harmonic limits above.						
Current distortions that result in a dc offset, e.g. half-wave converters, are not allowed.						
All power generation equipment is limited to these values of current distortion, regardless of actual I_{sc}/I_L.						
Where: Isc = maximum short-circuit current at PCC. IL = maximum demand load current (fundamental frequency component) at PCC. TDD = Total demand distortion (RSS), harmonic current distortion in % of maximum demand load current (15 or 30 min demand). PCC = Point of common coupling.						
Taken from IEEE Standard 519-2014 (Revision of IEEE Standard 519-1992). Please note: In the event of a discrepancy, the latest version of IEEE Standard Recommended Practice and Requirements for Harmonic Control in Electric Power Systems will be taken as correct.						

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.

The Distributor shall not be held liable for the failure to maintain supply voltages within standard levels due to Force Majeure.

The Customer installing generation will install a Distributor approved system configuration and voltage level. In general, where the connection of generation will be to the service supply the generation will be required to be the same voltage and number of phases.

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 Volts single phase, or*
- *at 120/208 Volts three phase, four wire, or*
- *at 347/600 Volts three phase, four wire,*

OR

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

OR

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

- *at 120/240 Volts single phase, or*
- *at 120/208 Volts three phase, four wire, or*
- *at 347/600 Volts 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*
- *44,000 Volts 3 phase 3 wire*

The Customer shall contact the Distributor when planning their service to verify standard transformer availability and supply capacity.

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 - see table below) which specifies maximum variations from "normal operating conditions" and for "extreme operating conditions".

Nominal System Voltages	Voltage Variation Limited Application at Service Entrances (V)			
	Extreme Operating Conditions			
	Min	Normal Operating Conditions		Max
Single-Phase				
120/240	106/212	110/220	125/250	127/254
240	212	220	250	254
600	530	550	625	635
Three-Phase 4-Conductor				
120/208Y	110/190	112/194	125/216	127/220
347/600Y	306/530	318/550	360/625	367/635
Three-Phase 3-Conductor				
240	212	220	250	254
600	230	550	625	635
Taken from CSA Standard CAN3-C235. Please note: In the event of a discrepancy, the latest version of CSA Standard CAN3-C235 will be taken as correct.				

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.

Where concern exists with the service voltage level Customers are encouraged to contact the Distributor to confirm the allowed variations and to determine whether corrective action is required.

2.3.6 Back-up Generators

Customers with portable or permanently connected emergency generation capability shall comply with all applicable criteria of the Ontario Electrical Safety Code and in particular, shall ensure that Customer emergency generation does not back-feed on the Distributors' system.

To access the Ontario Electrical Code which specifies the requirements for the connection of generators and to further review the Standby Generator Safety Checklist review Generator Safety Info.

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, read and safely maintain any of the Distributors' electricity meters and or distribution equipment 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. Where primary metering is utilized the Customer may own the current and potential transformers.

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.

2.3.7.1.4 Primary Metering

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

2.3.7.1.5 Bulk Metering

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 may be required.

Individual residential condominium or apartment units should be metered individually to empower the residents with control over their individual costs. In such instances, one or more bulk meters may still be required at the facility for the purpose of calculating house loads and/or transformer allowances (on Customer owned transformers) where applicable.

Individual suite metering can be installed and operated by the Distributor or an OEB Licensed Sub-Meter Contractor. The installation and operations of systems will comply with the requirements as outlined in the Energy Consumer Protection Act, 2010 S.O. 2010, Chapter 8.

In all installations where the Customer requests revenue metering remote from the secondary entrance equipment or downstream from a Customer-owned 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 is required, the meters shall be grouped where practical.

The Customer 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 shall insure that all service identifications are accurate and by not doing so will be held 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.

2.3.7.1.6 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 other than the Distributor or its authorized agent remove the lock.

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.

2.3.7.1.7 Meter Seals

All devices used by the Distributor for metering are sealed. Only the Distributor or its authorized agents have the authority to break this seal. Tampering with the seal will require the Distributor to investigate the cause of the tampering. Following the investigation, the proper authorities will be contacted as required (*ESA, Police, Fire*). The Customer shall be responsible for all reasonable costs associated with the investigation.

2.3.7.1.8 Maintenance of Metering Equipment

Unless owned by the Distributor, the Customer is responsible for maintaining the integrity of the meter base and cabinets, ensuring they meet the required mechanical, electrical, and safety standards.

For residential meters the meter base is considered Customer owned and is to be maintained by the property owner. Any requirement for maintenance should be coordinated with the Distributor and completed in accordance to all applicable standards.

Commercial/Industrial installations result in varying ownership of cabinets and equipment. The property owner is to maintain any metering equipment under their control. Any requirement for maintenance should be coordinated with the Distributor and completed in accordance to all applicable standards.

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 de-energized 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.

An appropriate 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.

Customer/Contractor must receive Distributor authorization regarding size, type and location of meter cabinets before installation of apparatus

2.3.7.3 Interval Metering

The Distribution System Code, 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 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. When a phone line is required for this purpose, the Owner will facilitate the provision of a telephone line in the metering cabinet 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 and other Customers, the Distributor may require the phone line to be dedicated for metering purposes only. When such dedicated phone lines are required, phone lines must be installed and functioning prior to the new service being energized.

A dedicated phone line is 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.

When the communication system relies on radio frequency the Owner will facilitate the provision of a location of an external antenna. The Distributor will install the antenna and the associated wiring.

2.3.7.3.2 Smart Meters

The Ontario Government has mandated the installation of Smart Meters as a replacement to current metering technology. The Distributor will install smart meters in accordance with regulations and policies set out by Government authorities.

Residential and small General Service Customers, who are billed on an energy-only basis, will be provided with a smart meter. Metering requirements for Large General Service Customers will be reviewed in concert with any new Regulations.

Where the Customer installation requires by-directional metering (example for generation connections) the additional cost of the metering may be charged as an additional fee.

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. Estimates will be based on available historical consumption.

Where Smart Meters are installed the final reading can be accommodated through remote interrogation. If at the time of final read remote access to the meter is not available an estimate of consumption will be made based on meter reading system data calculated to estimate the final billing.

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.

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.

Where the Distributor has under billed a Customer or retailer, the maximum period of under billing for which the Distributor is entitled to be paid will be as specified in the latest revision of the Acts and Codes. Where the Distributor has over billed a Customer or retailer, the maximum period of over billing for which the Customer or retailer is entitled to be repaid will be as specified in the latest revision of the Acts and Codes.

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 as per the Federal Electricity and Gas Inspection Act.

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.*

2.3.7.9 Meter Mounting Heights

Provision for metering shall facilitate a practical mounting height for revenue meters in compliance with the Distributor's standard specifications and 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 and remain in a safe and maintainable status.

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.

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 installation of metering equipment, which may include:
    - Potential transformers
    - Potential transformer fuse holders and fuses
    - Current transformers
    - Phone line for remote interrogation of meters
    - Duplicate Pulse Initiators
    - 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.
    - Install instrument transformers, metering cabinet and conduit.
    - Each main bus bar to be drilled and tapped (10-32) or (10-24) on the line side of the removable current transformer link.
    - Receive Distributor's approval for access / location
- 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.

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 Distribution System Code as approved by the Ontario Energy Board, and/or the Market Rules as approved by the Independent Electricity System Operator.

2.3.7.17 Net Metering for Embedded Generation

Customers with specific generation facilities may reduce their net energy costs by exporting surplus generated energy back onto the utility distribution system. Surplus energy exported onto the utility distributions system will be calculated as a credit against the energy the Customer consumes from the distribution system.

All Customers wishing to become a Net Metering participant must meet all of the following conditions:

- The electricity is generated primarily for the Customer's own use;
- The electricity is solely generated from a renewable energy source (such as wind, drop in water elevation, solar radiation, agricultural bio-mass, or any combination thereof;
- The Customer conveys the electricity that is generated directly from the point of generation to another point for the generator's own consumption without reliance on the Distributor's distribution system
- The customer conveys any electricity that is in excess of what is consumed by the Customer into the Distributor's distribution system; and

- The customer is not a party to any contract or agreement, other than a net metering agreement to which this Regulation applies, that provides for the sale, in whole or in part, of the electricity that the generator conveys into the distributor's distribution system
    - (Reference – Ontario Regulation 541/05 – Net Metering, Section 7)

In order to participate in the Net Metering program, the Customer will be required to meet all the parallel generation requirements for Connecting Micro-Generation Facilities, as applicable to the generator size, as found in Section 3.5 - Embedded Generation Facilities

Meters for Net Metering may be either one-way or bi-directional at the discretion of the Distributor.

Reference: A Customer considering a generation project can find additional information on the technical and administrative requirements in the CHEC Generation Guide and Appendix E and Appendix F of the Distribution System Code. A copy of these documents can be obtained from your local utility upon request.

2.3.7.18 Metering for Embedded Generation

Generating facilities will connect directly to the distribution system at a voltage of 44kV or less. Output from the generating facility shall be metered in a manner to ensure proper collection of required information for settlements. Such metering may include:

a. for generators of 10 kW or less and connected to the line side of the load meter
   (i) a bi-directional kWh meter to measure energy consumed and energy exported; or
   (ii) a bi-directional interval meter to measure hourly energy consumed and energy exported

b. for all other generators, an interval meter must be installed.

In some instances, the load meter may also have to be changed in order to accommodate proper settlement calculations. The generator will be responsible for costs associated with the connection to the distribution system and any required metering installation as defined by the relevant Codes and Acts.

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 Standard Supply Service Code, the Retail Settlement Code or as mandated though Legislation or Regulations issued by the OEB or the Ministry of Energy.

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

Customers will be switched to a licensed 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 Security Deposits & Agreements

Whenever required by the Distributor, the Customer shall provide a security deposit in accordance with the Distributor's most recent Security Deposit Policy.

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. If an expansion or enhancement of the distribution system is required to facilitate a connection, the Distributor may need to perform an Economic Evaluation to establish the capital contribution required from the Customer. The Customer should review the attached Distribution Connection Process for further information.

2.4.4 Billing & Payment

The Distributor will bill Customers on a monthly basis. The Distributor may elect to bill on a more frequent basis in order to manage Customer non-payment risk, in accordance with the Distribution System Code (DSC).

2.4.4.1 – Account Setup Charge:

A New Account Setup Fee (or Occupancy Charge) covers the cost of setting up a new account and performing the final meter reading when an account is closed. The New Account Setup fee will apply to all new accounts that move from one location to another.

2.4.4.2 – Equal Payment Plan:

The Distributor shall offer to all non-seasonal residential Customers and general service < 50kW Customers receiving standard supply an equal monthly billing plan option as outlined in the Standard Supply Service Code.

2.4.4.3 – Estimated Billing:

Where a smart meter or interval meter has been installed, a Distributor shall issue a bill to a residential or general service < 50 kW Customer based on an actual meter read.

Despite the above, to account for exceptional circumstances, a Distributor may issue a bill to a residential or general service < 50kW Customer with a smart meter or interval meter based on estimated consumption twice every 12 months.

2.4.4.4 - Billing Errors

When a billing error has resulted in overbilling and Measurement Canada is not involved, the Customer shall be credited with the erroneously paid amount for a period not exceeding two (2) years, starting from the date that can be reasonably proven when the problem/condition began. If the billing error is not a result of the Distributor's standard documented billing practices, the Distributor shall pay interest on the amount credited to the Customer, equal to the rate as dictated by the Retail Settlement Code.

The Customer shall be refunded the overbilled amount by either a credit to their account or by cheque. If there are outstanding arrears on the account, the Distributor will apply the refund to the account, first.

When a billing error has resulted in under billing and Measurement Canada is not involved, the Customer will normally be charged with the amount erroneously under billed for a period not exceeding two (2) years, in the case of a Customer who was not responsible for the error, or the duration of the defect for any proven cases of willful damage or Energy Diversion.

In the case of under billing, the Customer, upon request, may be permitted to re-pay the amount over a period of time mutually agreed by both the Distributor and the Customer, but, no longer than the duration of the error. In cases of overbilling, the Distributor shall refund the amount owed to the Customer upon the completion of the investigation and over a period of time mutually agreed to by both the Distributor and the Customer, but, no longer than the duration of the error.

The Distributor will not charge interest on amounts owing due to billing errors, provided that the Customer was not aware of the defect or has not tampered with or damaged the metering installation. In cases where tampering has occurred, the interest charge will be at the discretion of the Distributor.

In cases in which Measurement Canada is involved, Measurement Canada will act as an arbitrator and determine the appropriate adjustment.

Billing corrections shall be calculated using the actual rates in place at the time of the error.

2.4.4.5 - Payment:

Except as otherwise permitted by this document, a Distributor shall not treat a bill issued to a Customer as unpaid, and shall not impose any late payment or other charges associated with non-payment, until a minimum payment period (Ref: Billing and Payment Policy - Page 74) from the date on which the bill was issued to the Customer has passed.

A Distributor may provide for longer minimum payment periods, provided that any such longer minimum payment periods are documented in the Distributor's Conditions of Service.

2.4.4.6 – Method of Enforcement where Payment is Not Received:

Failure to pay bills on the due date will result in the immediate implementation of the Distributor's Collection Policy which may lead to the discontinuation of electrical service.

For additional information on billing and payments, please refer to the Distributor's Billing and Payment Policy and/or the Distributor's Collection Policy.

2.4.5 Late Payment Charges & Other Charges

Bills are rendered for distribution services and electrical energy used by the Customer.

Bills are due when rendered by the utility and are payable in full by the due date. A Customer may pay the bill without the application of a late payment charge up to a due date as specified in the Distribution System Code. This due date shall be identified clearly on the Customer's bill.

A late payment charge of 1.5% per month (19.56% annually) is applied to all accounts not paid by the due date. This charge is applied to any overdue amount, excluding final bills and arrears payment arrangements. If the Customer has made a partial payment on or before the due date, the late payment charge shall only apply to the amount of the bill outstanding at the due date, inclusive of arrears from previous billings.

Where payment is made by mail or at a financial institution, payment will be deemed to be made consistent with the requirements in the Distribution System Code.

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 or the conditions of the Distribution System Code outlines an alternate process.

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.

A Customer Disconnected for non-payment will be required to pay a Reconnection fee. The Distributor requires that a Person over the age of eighteen (18) be at the Premise at the time of Reconnection. If a Distributor's representative arrives at the Premise and is not able to complete Reconnection because there isn't a Person over the age of eighteen (18) present, the request will be closed, and a Reconnection charge will be applied to the Customer's account. The Customer will be required to arrange Reconnection again, with a second Reconnection charge to be applied to the Customer's account when the Service Reconnection is completed.

For additional information on these and other charges, please see the "POLICIES Relevant to Conditions of Service" section below.

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 Retail Settlement Code 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 Municipal Freedom of Information and Protection of Privacy Act, R.S.O. 1990, c. F.31.

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 Demarcation Point 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 Site Planning document 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.

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-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.

3.1.5.1 Secondary Service Connections

The Point of Demarcation for residential services up to and including 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 Demarcation Point 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.

3.1.5.2 Primary Service Connections

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

3.1.6 Supply Voltage

A Residential 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*

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 plant.

3.1.8 Metering:

The owner will supply and install a meter socket complete with collar acceptable to the Distributor and which meets the Ontario Electrical Safety Code. Meter sockets will be directly accessible to the Distributor and:

- Mounted 1.73 meters (5'- 8") 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, at the discretion of the Distributor.
- 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.
- Remain accessible, safe, and maintainable

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

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 or 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, and shall remain accessible, safe, and maintainable.

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 1.73 meters (5’ - 8”) above finished grade to the center 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. Meters must always remain fully accessible for reading, replacement, repair, and general maintenance. Customers and/or their contractors should contact the Distributor prior to enclosing meters and/or meter bases to ensure that safety and access are not compromised, or the Distributor may disconnect the service until remedial action, as determined by the Distributor, are undertaken.

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 claim and take any actions or legal proceedings for recovery or compensation as a result of costs due to inconvenience, disruption of schedule, and/or loss of efficiency or productivity of any nature whatsoever related to misidentification of power quality issues or outages by the customer or its contractor and/or subcontractors, suppliers, and/or or materialmen of any tier.

3.1.12.2 Access:

All operations performed by the Distributor and its agents shall be performed within the rules and regulations set out by the appropriate authorities including but not limited to: ESA, Ministry of Labour, Ministry of Transportation, etc.

- **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.

- **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 Distributor 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)

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 Electrical Planning Requirements Form to the Distributor well in advance of installation commencement to allow the Distributor time for proper planning, ordering of equipment etc.

3.2.3 Basic Connection Charge

All costs attributed to the connection of a new General Service Customer (Below 50 kW) shall be recovered either as part of the Distributor's revenue requirements or through a basic connection charge to the Customer.

3.2.4 Variable Connection Charge

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. If an expansion of the distribution system is required to facilitate a connection, the Distributor may need to perform an Economic Evaluation to establish the capital contribution required from the Customer. The Customer should review the attached Distribution Connection Process for further information.

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 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

3.2.5.1 Secondary Service Demarcations

A General Service Customer Demarcation Point 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 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*

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 Distributor's 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.

3.2.8 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 1.73 meters (5’ - 8”) 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, at the discretion of the Distributor.
- 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.
- Remain accessible, safe, and maintainable

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.

3.2.12 Inspection:

Prior to connection of the service the Distributor 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)

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 Electrical Planning Requirements Form to the Distributor well in advance of installation commencement to allow the Distributor time for proper planning, ordering of equipment etc.

3.3.3 Basic Connection Charge

All costs attributed to the connection of a new General Service Customer (Above 50 kW) shall be recovered either as part of the Distributor's revenue requirements or through a basic connection charge to the Customer.

3.3.4 Variable Connection Charge

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. If an expansion of the distribution system is required to facilitate a connection, the Distributor may need to perform an Economic Evaluation to establish the capital contribution required from the Customer. The Customer should review the attached Distribution Connection Process for further information.

3.3.5 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 or Secondary 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.

3.3.5.1 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 GS > 50 kW class Customers, an electrical requirement in excess of 300 kVA may require a Customer owned substation. In some instances, primary metering may be required. (Note: 300 kVA is the threshold for a GS > 50 kW Customer class).

In General, the Demarcation Point for a General Service Customer with a primary connection 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, termination poles, 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.

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.

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.

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.

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*

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 plant.

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.

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 Distributor 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)

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 Electrical Planning Requirements Form to the Distributor well in advance of installation commencement to allow the Distributor time for proper planning, ordering of equipment, and coordination with ESA requirements etc.

Note: Larger services may require approval by the ESA to ensure compliance with their design requirements. The Customer should contact the ESA early in the planning stages.

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 Basic Connection

All costs attributed to the connection of a new General Service Customer (Above 500 kW) shall be recovered either as part of the Distributor's revenue requirement or a basic connection charge to the Customer.

3.4.4 Variable Connection Charge

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. If an expansion of the distribution system is required to facilitate a connection, the Distributor may need to perform an Economic Evaluation to establish the capital contribution required from the Customer. The Customer should review the attached Distribution Connection Process for further information.

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 Demarcation Point 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.

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 (Note: 500 kW is the threshold for a GS > 500 kW Customer class).

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 plant.

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.

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.

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

Site Plan: showing the location of the station relative to buildings, structures and set back 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.

Schematic or Single-Line Diagram: 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.
- 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:

- ***New Substation****: 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.*

Prior to connection of the service the Distributor 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)

3.5 Embedded Generation

3.5.1 General

An Embedded Generator shall provide the Distributor with proof of compliance of the regulators' registration requirements, permits and inspections as required, including ESA and Licences as appropriate.

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 but are not limited to costs associated with:

- Preliminary review for connection requirements. (Connection Impact Assessment)
- Detailed study to determine connection requirements. (Cost of Connection)
- Final proposal to the generator.

- Connection costs for construction or make ready work for the distribution system as per the cost allocation methods in the DSC.

A Generator that is or wishes to become connected to the Distributors' distribution system shall enter into a Connection Agreement with the Distributor as prescribed in Appendix E of the DSC.

A generator shall ensure that a disconnection method suitable to the Distributor is installed to provide visible isolation of the generation.
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 protection 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 greater than 10 kW must submit a proposed single line diagram and protection scheme signed and sealed by a Professional Engineer in the Province of Ontario 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.

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.

Reference: A Customer considering a generation project can find additional information on the technical and administrative requirements in the CHEC Generation Guide and Appendix F of the

Distribution System Code. A copy of these documents can be obtained from your local utility upon request.

The generator in addition to the requirements of the host Distributor may be required to meet the conditions of upstream Distributors. The additional requirements will be communicated through the host Distributor.

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

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. Remote Trip Protection will often involve the participation of a neighboring or Host Distributor. Early consultation is important to ensure a timely connection to the system.

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 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.
- Prior to completing any testing or repairs on the system the Distributor shall be contacted to coordinate the work.
- 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 plant.
- 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.
- Testing & inspection requirements specified by the Distributor.

3.5.6 Post Connection Changes

Any changes to the system after the initial connection will be communicated to the Distributor prior to implementation.

Where any of these proposed changes alter the protection associated with the installation the Distributor will be provided with sufficient information to allow review of the protection scheme and the potential impacts on the distribution system.

Where the Customer makes changes which result in the need for additional studies, protection changes or alterations to the distribution system the Customer will be responsible for the costs incurred by the Distributor as allowed by the various codes and regulations.

3.5.7 Micro-Embedded Generation

The following are the minimum requirements for Micro-Embedded Generation. The Distributor may require other information.

A Distributor shall require a person that applies for the connection of a Micro-Embedded Generation facility to the Distributor's distribution system to provide, upon making the application, the following information:

- The name-plate rated capacity of each unit of the proposed generation facility and the total name-plate rated capacity of the proposed generation facility at the connection point;
- The fuel type of the proposed generation facility;
- The type of technology to be used; and
- The location of the proposed generation facility including the address and account number with the Distributor, where available.

Reference: A Customer considering a generation project can find additional information on the technical and administrative requirements in the CHEC Generation Guide and Appendix F of the Distribution System Code. A copy of these documents can be obtained from your local utility upon request.

3.6 Embedded Market Participant

An Embedded Market Participant shall provide the Distributor with proof of compliance of IESO 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.

3.7 Embedded Distributor

An Embedded Distributor shall provide the Distributor with proof of compliance of IESO and OEB 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.

Metering requirements of the Embedded Distributor shall be at the discretion of the Host Distributor.

3.8 Unmetered Scattered Load (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.

These small services may be required to be metered by the Distributor.

To facilitate these installations the Distributor may have standard designs which are to be followed by parties requesting the attachment.

In addition, any attachments made to the Distributor's system will be required to conform to Ontario Regulation 22/04 and Ontario Electrical Safety Code. The Distributor will provide direction to the Owner with respect to any special requirements under Regulation 22/04.

3.8.1 Rights and Responsibilities:

Unmetered Customer Responsibilities:

- Comply with the Distributor's requirements for new connections, which may require the signing of a formal agreement for services. Unmetered Customers cannot use power from the Distributor's Distribution system without written or implied consent from the Distributor.
- Comply with the requirements of the Distributor's standards for power quality and reliability and the Ontario Electrical Safety Code to ensure public safety. Where compliance is breached, the unmetered Customer may be billed for subsequent restoration costs, and/or may be permanently removed from the Distributor's electrical system.
- Retain all information provided to and by the Distributor per the terms outlined in this Conditions of Service. The Distributor may not retain record details for each unmetered service and thus will not be held responsible for any incomplete records.
- Install, operate, and maintain its secondary conductor from the Distributor's designated Supply Point to the intended load.
- Provide timely and accurate electrical profile, power quality and usage data to the Distributor as outlined in these Conditions of Service. Provision of data to the Distributor constitutes consent to the Distributor to share or release load detail, plus energy and demand data, however, the Customer's identity shall remain confidential.
- Accept energy consumption based on either 1) the maximum continuous calculated load, or 2) the results of a Distributor's meter analysis.
- Allow no external party to connect to its unmetered service or its unmetered secondary bus.
- Relocate, at the unmetered Customer's cost, the secondary conductors of an unmetered service to another designated Supply Point at the Distributor's request.
- Submit revised unmetered data that affects energy consumption and/or billing determinants to the Distributor within 30 days, or as otherwise specified by the Distributor.
- Understand that the unmetered connection facility is not intended for an unmetered Customer to generate back into the Distributor's distribution system. If an unmetered Customer has

generation facilities, the connection shall meet the Distributor's specification(s) for standby generation.

Distributor's Responsibilities:

- Provide a service layout for each unmetered service location that identifies the Supply Point and prescribes any applicable Distributor's standards and conditions.
- Strive to make new unmetered service connections within 10 working days of having all Distributors' connection conditions met.
- Provide reasonable notice to the unmetered Customer should the Supply Point require relocation:
  - Planned Supply Point relocations - 90 day written notice.
  - Emergency Supply Point relocations – when possible.
- Ensure that unmetered service billing information accurately reflects calculated electrical consumption by unit, quantity, load profile and demand. Devices of the same class by type or load, where possible, can be grouped together and assigned the same billing determinants.

3.8.2 Process for Updating and Validating Data

A Distributor will strive to ensure that unmetered service billing information accurately reflects calculated electrical consumption by unit, quantity, load profile and demand, based on information supplied by the unmetered Customer. An unmetered Customer, at its cost, has the following options available for submitting data:

New Unmetered Services – Unmetered Customers shall provide the Distributor with electrical profile, power quality, and usage accuracy studies prior to new unmetered equipment being introduced to a Distributors electrical system. Acceptable examples for collecting and providing such data are:

- An in-house test plan (covering scope, applicability, conditions, quality control, measurement devices, timing, staff competencies, control documents, error resolution process, and external

references) that meets the Distributors approval. Final results and report shall be signed and sealed by a Professional Engineer of Ontario;

- A signed and sealed certified test report from the Standards Council of Canada, an ANSI compliant laboratory, or other similarly qualified laboratory having competencies in electrical equipment testing; or
- Having the Distributor meter specific unmetered nodes of their choice to determine accurate data. With the advent of Smart Metering the metering of actual consumption data is available and preferred by most Distributors.

Existing Unmetered Services – Throughout the lifecycle of the unmetered service, unmetered Customers are required to submit updated and accurate data to the Distributor when it becomes known by the unmetered Customer or requested by the Distributor.

At the very least, the unmetered Customer must provide written notification to the Distributor by January 31st each year that no material changes to the technical data or number of unmetered service nodes has occurred.

3.8.3 General Billing Conditions:

An unmetered service is deemed to be "in-service" once it has been connected and energized by the Distributor. Once energized, the Distributor will bill the unmetered Customer based on the billing standards outlined in these Conditions of Service and/or by the Distributors billing policies.

Where possible, the unmetered Customer shall work with the Distributor to classify like energy devices such that similar devices can be consolidated to similar energy usage profiles for energy billing purposes. When requested by the Distributor, the unmetered Customer shall consolidate their separate unmetered billing accounts down to at least the number of similar energy profile classifications. Security deposits, billing, and payment options are handled as specified in these Conditions of Service and/or by the Distributor's billing policies.

Unmetered Customers are responsible for ensuring their electrical consumption is accurate on an ongoing basis. The Distributor encourages voluntary data disclosure to ensure data quality and billing accuracy is maintained. Upon the Distributors receipt of updated unmetered load data, the Distributor shall have a period of up to 90-days to review and adjust its billing determinants.

To ensure the quality of unmetered data, the Distributor encourages the unmetered Customer to cooperate in a joint audit, at a minimum interval of every 5 years, or earlier upon written notice from the Distributor. Unmetered Customers who participate in a joint audit will be responsible for their associated audit costs.

If the unmetered Customer provides the Distributor with poor unmetered data (i.e.: not to audit standards, no data, late data, etc.) a unmetered Customer shall be responsible to pay the Distributor for

verification, data correction and usage costs for the duration the unmetered connection has been energized on the Distributor's system.

In the event that the Distributor or the unmetered Customer identify or cause a billing error, the Distributor will rectify the matter consistent with the polices outlined in these Conditions of Service and/or the Distributor's billing policies.

Billing of the energy and fixed charges will continue until the Distributor has been duly notified and the unmetered service has been permanently removed from the Distributor's electrical system.

Failure to comply with any of the above USL requirements could result in disconnection from the distribution system as per these Conditions of Service and/or the Distributors Disconnection/Reconnection Policy. Reconnection to the system would be subject to the reconnection requirements and costs as outlined in these Conditions of Service and/or the Distributors Disconnection / Reconnection policy.

3.8.4 Record Retention:

The unmetered Customer shall retain information provided to and by the Distributor for a minimum period of seven years while the unmetered service is energized on the Distributors electrical system. Once the service has been permanently removed, the retention period shall be a minimum of two years.

The retained information shall include yet, not be limited to, the information outlined above, and any other relevant correspondence or agreements regarding the unmetered account including the associated service connections and load.

The unmetered Customer who fails to retain such records shall be responsible for costs related to the Distributor researching and reconstructing such missing information.

3.8.5 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
- 120/208 volts, three phase, four wire
- 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 will install required transformation and may charge the Owner the cost.

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

The Owner will be required to maintain any equipment in proper and safe working order. Where the equipment is found to be in disrepair or present a hazard the Distributor may disconnect, remove and charge the costs to the owner.

3.8.6 Early Consultation

The Owner shall supply a completed Electrical Planning Requirements Form 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.

The Distributor after reviewing the information provided may require the owner to provide further information or approved drawings signed by a Professional Engineer ensuring that the installation is consistent with the requirements of Regulation 22/04.

3.8.7 Street Lighting

Where the street lighting is installed, owned and maintained by the Municipality or a third party, a Joint Use Agreement may be required for attachment to the Distribution system. Installations shall meet Ontario Regulation 22/04 and Ontario Electrical Safety Code.
The owner will be required to ensure qualified personnel are engaged to work on the streetlight system and that the system is maintained in a manner as to not represent a hazard to the distribution system and the public.

Proper records of the street light system shall be maintained by the owner to facilitate identification of equipment, appropriate record management and the ability to locate any underground plant associated with the system.

3.8.8 Traffic Signals

Traffic Signals and Crosswalk Lights are owned and maintained by the applicable road authority. Any traffic signals and crosswalk lights, if attached to the distribution system will be required to be in compliance with Regulation 22/04.

3.8.9 Bus Shelters

Bus Shelter Lighting is owned and maintained by the Customer.

3.8.10 Decorative Street Lighting

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

Where such lighting represents a barrier to distribution system maintenance the Distributor may remove to facilitate work on the system in a safe manner. The owner will be responsible for reinstalling any equipment removed by the Distributor.

3.9 Attachments to Distribution Plant

The Distributor reserves the right to refuse any attachment to the Distribution Plant.

Customer attachments require written consent of the Distributor. Generally, consent will only be provided to licensed franchisees such as Bell Canada, Rogers Cable, and registered Telecom Companies. The Distributor reserves the right to refuse attachments to its poles.

Pole attachments will require a signed contract between the Distributor and the Customer. Each pole attachment is subject to a yearly joint use charge and installation must conform to Regulation 22/04. Requesting parties will be responsible for meeting the requirements of Regulation 22/04 and the associated costs. No Customer owned wires or apparatus are to be installed on the Distributor's poles prior to entering into a contract and confirming that the installation meets the requirements.

Where make ready work is required to accommodate the requested attachment the requesting party will be responsible for all costs associated with the make ready work.

Any attachments not approved will be removed by the Distributor at the owner's expense.
To meet engineering, safety, congestion and aesthetic considerations only three locations are generally allowed for the attachment of support strands and communications cables in the communication space of the Distributor's poles. Each Customer requesting attachment in the communication space is allowed to install one support or communications cable only and this applies to all its associates as defined by the Ontario Business Corporation Act.

The owner of any third-party plant shall be responsible to maintain their plant in a safe and proper condition compliant with Regulation 22/04 and relevant standards including any specific Distributor Standards.

The owner of any third-party plant will be responsible for transfers of their plant in a timely manner as required by the Distributor.

3.9.1 Miscellaneous Attachments

Owners of miscellaneous equipment wishing to attach to the Distributor's system shall make written application for review and where appropriate approval by the Distributor.

Failure to obtain written authorization from the Distributor and or to enter into a Joint Use Agreement will result in the removal of the equipment and any associated plant by the Distributor at the owner's expense.

3.9.2 Joint Use Agreements

This section pertains to owners of plant who wish to make attachments to the Distribution System which have a direct or indirect influence on the performance, appearance and safety of the support structure or the Distributor's ability to make access and maintain it. For greater clarity this section applies to companies such as communication companies, CATV companies, and municipalities, but may be extended to others interested in making attachments.

All construction, installation and maintenance of attachments by the third party will conform to Ontario Regulation 22/04 and follow the appropriate guidelines. The requirements of Regulation 22/04 provide direction on design, material standards, construction and verification of the installations.

To facilitate good construction and project planning and compliance with Regulation 22/04 any party requesting to make an attachment shall contact the Distributor in writing well in advance of the proposed installation date.

Prior to making any attachments the owner of the plant will be required to enter into a Joint Use Agreement with the Distributor or if a Joint Use Agreement has been previously entered into, to follow the process for new attachments or modifications to existing attachments as specified in the Joint Use Agreement.

The owner of any third-party plant shall be responsible to maintain their plant in a safe and proper condition compliant with Regulation 22/04 and the conditions of the Joint Use Agreement.

SECTION 4 GLOSSARY OF TERMS

"Basic Connection" means a new residential 100A overhead, single-phase, secondary service including transformation capacity, standard metering, 30 meters of overhead conductor;

"Board" means the "Ontario Energy Board" (OEB);

"**Bulk Meter**" means a revenue class Measurement Canada approved meter and/or installation that is used as a single point of measurement which the Distributor uses to bill the Customer's energy account for a Premise. A Bulk Meter is not a Customer-owned revenue meter or a meter which is owned and operated by a licensed Sub-Metering provider;

"Conditions of Service" means the document developed by the Distributor in accordance with subsection 2.3 of the Distribution System Code, 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;

"**Connection Impact Assessment**" (CIA) is an analysis of an Energy Resource Facility's impact to the Grid, outlining project feasibility, initial technical specifications, and the effect the project would have on the Grid. The CIA may be preliminary or detailed providing different level of information, options, and responsibilities. Any Customer changes to its information used for the CIA will require an application for a CIA revision;

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

"Demand meter" means a meter that measures a consumer's 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;

"Distributed Generation" means any type of electrical generator or static inverter producing alternating current that has the capability of Parallel Operation with the Distributor distribution system or is designed to operate separately from the Distributor system and can supply a load that can also be fed by the Distributor system.

"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.;

"Distribution services" means services related to the distribution of electricity and the services the Board has required Distributors to carry out.

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

"Distribution System Code" means the code, approved by the Board, and in effect at the relevant time, which, among other things, establishes the obligations of 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;

"**Economic Evaluation**" refers to the evaluation used to determine the net servicing cost based on the distributor's standards for the Customer to which this applies;

"**Electricity Act"** means the *Electricity Act, 199*8, S.O. 1998, c.15, Schedule A;

"Energy Competition Act" means the *Energy Competition Act, 199*8, 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;

"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;

"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;

"**Host Distributor**" means the Distributor who provides electricity to an Embedded Distributor;

"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;

"Land Parcel" - A lot or plot of land owned or meant to be owned by an owner(s).;

"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.

"**Load**" means any device (i.e., equipment, apparatus) or collection of devices that rely on electricity to function;

"Market Rules" means the rules made under section 32 of the *Electricity Ac*t;

"Measurement Canada" means the Special Operating Agency established in August 1996 by the *Electricity and Gas Inspection Ac*t, 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 name-plate 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;

"Net Metering" means a settlement process for Embedded Generation behind a Load Customer meter as defined by Ontario Regulation 541/05

"**Offer to Connect**" means the Distributor's specific requirements for a Customer to connect to their Distribution System;

"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, 199*8, 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;

"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;

"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;

"**Reconnection**" means reactivation of Connection assets and results in the Customer's ability to use their electrical Service;

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

"Regulation 22/04" Electrical Distribution Safety: means the regulation made under the Electricity Act establishes objective based electrical safety requirements for the design, construction, and maintenance of electrical distribution systems owned by licensed Distributors.

"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**" means the conductor and equipment for transferring electrical Energy between the Distributor's Distribution System and the Customer's premise;

"Service Area" with respect to a Distributor, means the area in which the Distributor is authorized by its licence to distribute electricity;

"Small Embedded Generation Facility" means an embedded generation facility which is not a micro-embedded 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;

"Smart Meter" means a device that measures electrical energy use (kilowatt-hours, kWh) on an hourly or sub-hourly basis and is part of an integrated data management system. The meter records, stores and transmits date and time-stamped meter readings to a utility's computer to facilitate Time-of-Use and Hourly billing. Smart meters may also include other capabilities and features to aid in load management and energy conservation.

"Standard Offer" means a settlement process for distribution connected Embedded Generation under contract for supply with the IESO.

"**Sub-metering**" or "**Unit Sub-metering**" shall have the meaning ascribed to it in Part II of the Energy Consumer Protection Act, 2010, S.O. 2010, c.8;
"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;

"Transmitter" means a person who owns or operates a transmission system;

"**Unmetered Scattered Load**" means electricity consumption that is not metered and is billed based on estimated usage and its Load profile if it can be determined.

"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;

SECTION 5 APPENDICIES

Please note the following appendices:

- **Policies Relevant to the Conditions of Service**
- **Contact Information**
- **Distribution Connection Process**
- **Request for Connection Form**
- **Electrical Planning Requirements Document**
- **Electric Service Meter Base/ Service Verification Form**

POLICIES Relevant to Conditions of Service:

The following CHEC standard policies provide additional information on a Distributor's processes. Please contact your Distributor to obtain the most recent copy of the policy:

Policy 2.01 – Security Deposit

Policy 2.02 – Billing and Payment

Policy 2.04 – Eligible Low-Income Customer

Policy 2.05 – Opening and Closing of Accounts

Policy 2.06 – Collection

Policy 2.08 – Disconnection/Reconnection

Policy 2.10 – Customer Complaint Process

Please Note: The above policies are CHEC standard policies. A Distributor's Conditions of Service and/or a Distributor's policies may supersede the CHEC standard policies.

CHEC Distributor Information:

For a complete and current list of CHEC members, please see the members map located on the CHEC Website at https://checenergy.ca/members/

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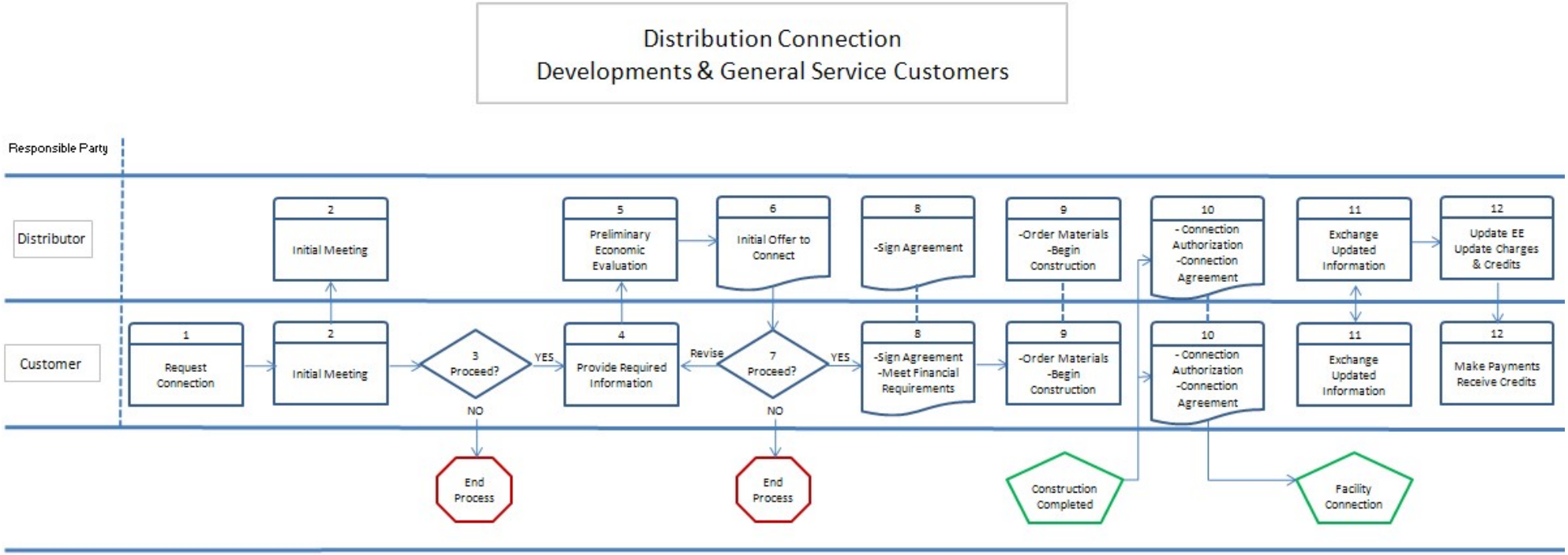
Distribution Connection

For Generation please see the CHEC Generation Guide



Distribution Connection
Developments & General Service Customers

If you are planning on building a Subdivision, Commercial Building, or an Industrial Development, the process of connecting to the Local Distribution Infrastructure will require coordination with the Distributor.

The following information in conjunction with the preceding chart is designed to assist the parties in meeting their respective obligations and facilitate the required connection. It is important to note although the steps identified in both the chart and the following descriptions need to be followed in proper order, some of the steps may be combined to help speed up the process if all the required information is provided in a timely manner.

Step 1 – Request for Connection

Customer submits a connection request to the Distributor. Initial request should at a minimum include the following information:

a) Location of proposed development
b) General description of development
c) Proposed construction date
d) Contact information for Development

Step 2 – Initial Meeting

Customer and Distributor meet to review proposed new development and connection requirements. Initial meeting will provide both parties with an opportunity to gain a better understanding of the proposed development and identify any issues related to timing and connection to the Distribution System.

Based on the information provided by the Customer prior to the meeting, the Distributor will be able to provide at a high level:

a) An initial concept of the type of work that may be required to facilitate a connection. ie:
    a. Extension of an existing Feeder
    b. Potential requirement for a new DS
    c. Add a second or third phase to an existing feeder
b) An understanding of the of the Customer responsibilities
c) An understanding of what must be managed by the Distributor
d) An understanding of what may be contracted by the Customer
e) An estimated timeline required to provide connection facilities
f) An initial estimate of required expansion costs – note: more detailed estimates on costs will be provided with the Offer to Connect should the Customer choose to continue to Step 4.

Step 3 – Customer Decision

Based on the results of the initial meeting, the Customer decides on proceeding with the process or withdrawing their Request for Connection.

Step 4 – Customer Provides Required Information

If the Customer decides to proceed with the process for acquiring a connection, the Customer notifies the Distributor and provides the relevant detailed information as noted below:

a) A statement noting if the Customer intends on managing the contestable work noted during the consultation
b) Number of Residential Connections
c) Residential – Type, Number, and size of units
d) Number of Commercial / Industrial Connections
e) Estimated Average Monthly consumption (at minimum winter & summer estimates)

f) Estimated annual facility connections over five years from date of Distributor system connection

The following information is also required however the Distributor reserves the right to perform the work internally or through an external consultant:

a) Design and engineering specifications including but not limited to stamped site service drawings
b) Determination of required Transformation based on estimated building loads
c) Estimated Capital costs of facilities which would be assumed by the Distributor following energization

To assist the Customer in providing the required information, a submission summary sheet is provided as an attachment to this document.

Step 5 –Initial Economic Evaluation

Upon receipt of the required information from the Customer, if an expansion of the distribution system is required, the Distributor will perform an Initial Economic Evaluation following the process as required in the Distribution System Code.

The Initial Economic Evaluation will assist the Distributor in calculating what (if any) portion of the Capital Costs the Distributor will invest and will be used in the preparation of the Offer to Connect.

Step 6 – Offer to Connect

Using the information provided by the Customer, and following the completion of the Preliminary Economic Evaluation, the Distributor will prepare an "Offer to Connect". The Offer to Connect will contain the following information:

a) A statement as to whether the offer is a firm offer or an estimate to be revised after the actual costs are known
b) The estimated amount of Capital Contribution that will be required from the Customer
c) The estimated amount of the Expansion Deposit that will be required from the Customer
d) A description of the costs related to the Capital Contribution
e) The costs for inspections
f) A description of the deliverables required from the Customer before Connection
g) An estimated Connection Date

Step 7 – Customer Decision

Customer Reviews Offer to Connect and decides if they would like to continue with the project as planned. Three options are available to the Customer:

a) Customer elects to drop the project, a notice of withdrawal of the Request for Connection shall be provided to the Distributor.
b) Customer would like to revise their Connection request, a notice informing the Distributor of the requested changes shall be provided to the Distributor (go back to Step 4)
c) Customer agrees with the Offer to Connect,

Step 8 – Construction Agreement

Once the Customer accepts the Distributor's Offer to Connect, the parties shall enter into an agreement covering the construction and connection requirements and responsibilities.
The Customer and the Distributor sign the agreement and the Customer provides the financial deposits and/or guarantees as required.

Step 9 – Construction

Following receipt of signed Construction Agreement and required financial deposits and/or guarantees from the Customer, both parties shall begin ordering materials and begin construction.

Step 10 – Connection Authorization

Once construction is completed, both parties will ensure that inspections are completed, and all required connection authorizations are in place. After receipt of a signed connection agreement and any additional financial contributions, the Distributor will authorize and connect the facility. If the Customer is coordinating the work on the expansion facilities within the development, the Customer is also required to provide "As-Built" drawings and a detailed material listing to ensure the Distributor has sufficient information in hand to verify system security prior to energization.

Step 11 – Exchange Updated Information

The Customer and the Distributor shall exchange any required updated information on the project including, but not limited to:

h) All applicable Connection Authorizations
i) All applicable Warranties
j) Any new information that was provided as an estimate in Step 4
k) Actual costs of any "capital works" related to the expansion facilities within the development
l) Detailed site plan with appropriate Municipal Address information for individual services

Step 12 –Final Economic Evaluation

As required, the Distributor shall copy the Initial Economic Evaluation to a new file, to be known as the Final Economic Evaluation. The Final Economic Evaluation shall be updated using actual information acquired during and following the construction process. This Final Economic Evaluation shall determine the capital contribution required to transfer the assets to the Distributor.

Step 132 – Annual Economic Evaluation Update

If the development includes estimated connections that are not energized at the time of the initial Connection, the Distributor shall re-run the Economic Evaluation on an annual basis using actual Customer connection information during the five (5) year connection horizon used in the initial Economic Evaluation. The Distributor will annually return the percentage of the expansion deposit in proportion to the actual connections that materialized in each year. The Distributor shall be permitted to retain the remaining portion of the expansion deposit for any forecasted connections that have not materialized during the five (5) year connection horizon.

If a third-party (not the Distributor - see Step 4 above) competed the majority of the work, the Distributor shall retain at least ten (10) percent of the expansion deposit for a warranty period of at least two years. This portion of the expansion deposit can be applied to any work required to repair the expansion facilities within the two-year warranty period. The two-year warranty period begins:

(a) when the last forecasted connection in the expansion project materializes (for residential developments) or the last forecasted demand materializes (for commercial and industrial developments); or
(b) at the end of the five-year customer connection horizon,

whichever is first. The distributor shall return any remaining portion of this part of the expansion deposit at the end of the two-year warranty period.

Request for Connection – Sample Form

Development Name:	
Site Plan Identification	

Contact Information:

Contact Name:	
Street:	
Town:	
Postal Code:	

Requested Connection Date:	
Multi-Phase Development?	Y / N
If YES - Identify Phase	

Type & Number of Connections:

		Average Monthly Consumption Per Unit - Winter	Per Unit - Summer
Residential:		kWh's	kWh's
Commercial:		kWh's	kWh's
Industrial:		kWh's	kWh's

Residential Dwelling Design:	Town Homes	
	Semi-Detached	
	< 1,500 SqFt Single Dwellings	
	>1,500 <3,500 SqFt Single Dwellings	
	> 3,500 SqFt Single Dwellings	

Connection Horizon

Year 1		
Year 2	Estimated connections in 1st year	
Year 3	Estimated connections in 2nd year	
Year 4	Estimated connections in 3rd year	
Year 5	Estimated connections in 4th year	
	Estimated connections in 5th year	

Capital Costs:		
	Distribution Infrastructure:	
	Transformers:	
	Ducts & Structures:	

Date: Submitted:	
Submitted By:	
Signature:	

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: _____

E-Mail: _____

Telephone: ( ) _____ **Fax:** ( ) _____

Service Classification (☒ as many as apply):

- Residential
- General Service < 50kW
- General Service > 50kW
- General Service >500kW
- Unmetered or Miscellaneous Load
- Temporary Service

What service voltage is required (☒ one only):

- 120/240 Volt Single Phase
- 120/208 Volt Three Phase
- 347/600 Volt Three Phase
- Primary

Required In-Service Date:

Month / Day / Year _____/_____/_____

Service Entrance Switchboard with Utility CT and PT Compartment ☐ Yes ☐ No

Capacity of Main Service (in Amperes):

Maximum rated capacity: _____

Estimated Connected Load in kW:

Maximum initial Load: _____ kW

Maximum Future Load: _____ kW

Metering Type (☒ one only):

- Single Meter
- Multiple Meters

Quantity of Meter installations

100A or less: _____

101A to 200A: _____

more than 200A: _____

Comments: **Please use the back of this form for comments** _____

Signed: _____ **Date:** _____

(Representative of Applicant)

Name: _____ **Title:** _____

Electric Service Meter Base/Municipal Address Verification Form – Sample

LOCAL DISTRIBTUION COMPANY NAME: _____

This Form **MUST** be completed by the Owner and/or their Electrical Contractor if applicable prior to service connection.

Electric Service Civic Address:_____

Name of Owner:_____

Telephone: _____ **Fax:** _____

Name of Contractor:_____

Telephone: **Fax:**

In area (A) provided below, carefully sketch the Front View layout of the Electric Meter Base(s).
Match the corresponding (B) **BILLING ADDRESS (INCLUDE UNIT #)** for each meter base(s) shown in (A).

(A) Front View of Electric Meter Base(s)	(B) Billing Address
	1)
	2)
	3)
	4)
	5)
	6)
	7)

The following terms are agreed upon by the undersigned at the time of submitting the form:

1. That all information contained on the form is accurate.
2. That if any information is determined to be inaccurate, the Utility will not be able to energize the service connection(s).
3. That if any information has to be corrected by Utility personnel there will be applicable charges to prepare the amended form.
4. That an amended form must be signed and returned along with payment of any applicable invoice, as per note 3, prior to further consideration as to the activation of the service connection.

I/We the undersigned, acknowledge the information provided above has been verified and is accurate.

Signature of Owner:_____ **Date:**_____

Signature of Contractor:_____**Date:**_____

APPENDIX 1 – Electric Vehicle Charging Connection Procedures

The Electric Vehicle Charging Connection Procedures (EVCCP) document is a consolidation of procedures, timelines, workflows and template forms issued by the Ontario Energy Board (OEB). Collectively, they are intended to streamline the process for connecting public charging facilities that commonly service multiple Electric Vehicles (EVs) – such as those found along highways and at service centres – as well as fleet charging stations designed for commercial use.

The EVCCP is applicable to Electric Vehicle Supply Equipment (EVSE) connections including, but not limited to, non-residential customer applications including Level 2 and Level 3 charging stations, such as publicly accessible direct current fast charging stations, workplace charging, charging stations used for commercial EV fleets and charging installations for multi-unit residential or commercial buildings, where the EV chargers are owned or operated by the building owner or a third-party charging provider. The primary purpose of the new or expanded connection must be specific to EVSE.

The EVCCP is NOT applicable to EV chargers installed by individual residential customers or unit owners/tenants of a multi-unit residential building. For residential EVSE installations, customers are advised to contact their distributor for more information.

A majority of processes and requirements outlined in the EVCCP, such as the Offer to Connect (OTC) and project development, are only applicable to EVSE installations that require modifications or additions to a distributor's distribution system. Customers should contact their distributor to understand if their proposed connection may require modification of a distribution system or addition before proceeding with an EVSE installation. Customer-side system modifications such as service panel upgrades and disconnect switch installations may also be required before a connection can be completed.

Under Section 6.1.6 of the DSC, Tillsonburg Hydro Inc. is providing this appendix setting out any additional requirements related to the connection of EVSE not specified in the DSC or EVCCP.

More information can be found at:

https://www.oeb.ca/sites/default/files/Electric%20Vehicle%20Charging%20Connection%20Procedures%20%28EVCCP%29_20240216.pdf

1. **Connection Request**
   If a customer wishes to connect an EVSE to Tillsonburg Hydro Inc.'s distribution system, they must complete and submit an *Electrical Planning Form*, along with requested information. Once received, THI.'s engineering team will review and respond within 15 calendar days confirming if the Electrical Planning submission is sufficient or if additional information is required.

2. **Basic Connection for Non-Residential Customers**

   THI's Basic Connection costs for non-residential customers is outlined in Tillsonburg Hydro Inc.'s Conditions of Service, Section 2.1.1

3. **Offer to Connect (OTC): Estimate or Firm Offer**

   Tillsonburg Hydro Inc.'s initial Offer to Connects are firm offers.

4. **Capital Contribution**
   Tillsonburg Hydro collects all of the shortfall between the present value of the projected costs and revenues from the customer in the form of a capital contribution.

5. **Work under the Alternative Bid Option**
   Contact Tillsonburg Hydro Inc.'s Operations Dept. for information regarding the Alternative Bid Option

6. **Expansion Deposit**
   Information regarding Expansion Deposits is detailed in section 2.1.2 & 2.4.3 of Tillsonburg Hydro Inc.'s Conditions of Service along with Appendix B of the Distribution System Code.

7. **Connection Agreement or Other Agreement**
   Information regarding Agreements, are detailed in Section 2.4.3 of Tillsonburg Hydro Inc.'s Conditions of Service

8. **Applicable Service Conditions for Connecting New Service**
   The following service conditions must be met prior to connection as per Tillsonburg Hydro Inc.'s Conditions of Service and DSC Section 7.1.2 & 7.2.2:

   - All customer requirements as outlined in the OTC; to be inspected by THI;
   - All required payments are received.
   - Connection Agreement (as required) & Offer to Connect executed and returned;
   - New Account Setup initiated by the customer and completed through Tillsonburg Hydro Inc.'s Customer Service department; and
   - ESA Inspection and Connection Authorization

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