CONDITIONS OF SERVICE

Effective: September 1, 2009
Revised: August 1, 2022
Updated: March 31, 2025 Separate appendix added setting out distributor requirements for the connection of Electric Vehicle Supply Equipment (EVSE)

500 Second Line East
Sault Ste. Marie, Ontario
(705) 759-6500

PREFACE

CONDITIONS OF SERVICE

In accordance with provisions of the Distribution System Code ("DSC"), this document serves to identify the operating practices and connection policies applicable to Customers within PUC Distribution Inc.'s (PUC) service area.

The Conditions of Service are readily available for review by the general public, either on PUC's website at www.puc.ca or by calling PUC's business office at (705) 759-6500 to obtain a hard copy.

PUC will periodically revise this document to reflect changes in PUC policies and practices and in response to regulatory requirements. The most recent version of this document is provided to the Ontario Energy Board (OEB), which in turn will retain it on file for the purpose of facilitating dispute resolutions in the event that a dispute cannot be resolved between the Customer and PUC.

This document follows the form and general content of the Conditions of Service template appended to the DSC. The template was prepared to assist Distributors in developing their own "Conditions of Service" document based on current practice and the DSC. As suggested by the DSC, PUC has expanded on the contents to encompass local characteristics and other specific requirements.

The "General" section contains references to services and requirements that are common to all Customer classes. This section covers items such as Rates, Billing, Hours of Work, Emergency Response, Power Quality, Available Voltages and Metering.

The "Customer Specific" section contains references to services and requirements specific to the respective Customer class. This section covers items such as Service Entrance Requirements, Delineation of Ownership, Special Contracts, etc. etc.

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

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

Comments on these Conditions of Service can be submitted by:

Email to: ***regulatory@ssmpuc.com***

Mail to: **PUC Distribution Inc.**
500 Second Line East, P.O. Box 9000
Sault Ste. Marie, Ontario

SECTION 1 INTRODUCTION

1.0 Conditions of Service

This document, Conditions of Service ("Conditions"), provides the terms and conditions according to which PUC Distribution Inc. ("PUC") agrees to distribute electricity to its Customers. These Conditions may be amended or replaced by PUC from time to time, subject to approval by the Ontario Energy Board ("OEB") as required. The Customer shall comply with these Conditions as amended from time to time.

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

1.1 Identification of Distributor and Territory

1.1.1 Distributor Identification

PUC is a corporation incorporated under the laws of the Province of Ontario and a regulated local distribution company distributing electricity within Ontario.

PUC Services Inc. ("PUC Services") is an affiliate corporation incorporated under the laws of the Province of Ontario that provides management services under long-term contract to PUC to operate, maintain, expand, and manage the assets of PUC. PUC Services acts as agent for PUC in all matters related to these Conditions.

Any reference to PUC within this document shall include reference to PUC Services.

1.1.2 Distributor Licence and Service Area

PUC is licensed by the OEB to supply electricity to Customers as described in the Distribution Licence issued by the OEB. Additionally, there are requirements imposed on PUC by the various codes referred to in the Licence and by the Electricity Act and the Ontario Energy Board Act.

1.2 Related Codes and Governing Laws

The supply of electricity or related services by PUC to any Customer is subject to various laws, regulations, and codes, including the provisions of the latest editions of the following:

a) Electricity Act, 1998 as amended

b) Ontario Energy Board Act, 1998 as amended

c) PUC Electricity Distribution Licence, ED-2002-0545

d) Affiliate Relationships Code

e) Transmission System Code

f) Distribution System Code

g) Retail Settlement Code

h) Standard Supply Service Code

i) Electricity and Gas Inspection Act

j) Ontario Electrical Safety Code

k) Building Code Act, 1992 as amended

l) Public Service Works on Highways Act

m) Personal Information Protection and Electronic Documentation Act

n) Municipal Freedom of Information and Protection of Privacy Act

In the event of a conflict between the Conditions and the documents listed above, the documents listed above shall govern. The related codes and governing laws are not all-inclusive; other codes and laws may apply.

When planning and designing for electric 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 and the Electrical & Utility Safety Association (E&USA) Rule Book.

These Conditions will be deemed to have been automatically amended to the minimum extent necessary to achieve compliance with such laws, regulations, and codes.

1.3 Interpretations

In these Conditions, unless otherwise defined:

- headings and underlining are for convenience only and do not affect the interpretation of these Conditions;
- words or phrases importing the singular include the plural and vice versa;
- words referring to a gender include any gender;
- any reference to a document or a provision of a document includes an amendment or supplement to, or a replacement of, that document or that provision of that document;
- any reference to a Code, Regulation, Act or Statute shall refer to its latest edition, revision, or amendment;
- an event that is required under these Conditions to occur on or by a stipulated day which is a holiday may occur on or by the next day, that is not a holiday.

1.4 Amendments and Changes

The provisions of these Conditions form part of any contract made between PUC and any connected Customer, Generator, or their agents. Any amendments to these Conditions shall supersede any previous Conditions.

In the event of changes to these Conditions, PUC shall provide notice to Customers in accordance with the requirements of the DSC.

The current version of this document is posted on PUC's website and can be from www.puc.ca.

1.5 Contact Information

PUC can be contacted during normal business hours – Monday to Friday between 09:00 am and 4:30 pm EST, excluding holidays:

Mail: General Office and Service Centre
500 Second Line East, P.O. Box 9000
Sault Ste. Marie, Ontario
P6A 6P2

Telephone: (705) 759-6500
Facsimile: (705) 759-6510

Emergency: (705) 759-6555 (outside normal business hours)

Website: www.puc.ca

Email: customer.experience@ssmpuc.com

1.6 Customer Rights

1.6.1 Non-discriminatory Access

PUC shall, upon the request of a Consumer, Generator or Retailer, provide them with access to its distribution system and shall convey electricity to them in accordance with the terms of these Conditions and the Codes.

1.6.2 Obligation to Connect

PUC shall connect a Customer's facility to its distribution system if the point of connection 'lies along' any of the lines of PUC's distribution system and the Owner, occupant, or person in charge of the facility requests connection in writing.

PUC shall make an offer to connect a Customer's facility to its distribution system if the facility is within PUC's service area, and the Customer requests connection in writing.

The terms of such connection or offer to connect shall be made in accordance with these Conditions.

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 in accordance with these Conditions.

1.6.3 Obligation to Supply

PUC shall sell electricity or ensure that electricity is supplied to every customer connected to its distribution system in accordance with Section 29 of the Electricity Act and the Standard Supply Service Code.

At the request of a Consumer, PUC shall provide a list of Retailers who have Service Agreements in effect with PUC. The list shall conform to the requirements of Section 2.5 of the Affiliate Relationships Code.

PUC will not provide information on products retailed by a Retailer.

Upon receiving an inquiry from a Consumer connected to its distribution system, PUC shall either respond to the inquiry if it deals with PUC's distribution services such as meter accuracy, distribution rates, bill

calculation errors, safety, and reliability, or provide the Consumer with contact information for the party responsible for the item of inquiry. Inquiries about usage, including how usage might be modified to lower bills, may be addressed by PUC, or referred to the relevant Retailer, in accordance with Chapter 7 of the Retail Settlement Code.

1.7 Distributor Rights

1.7.1 Access to Customer Property

PUC shall have access to Customer property in accordance with Section 40 of the *Electricity Act, 1998*. See *Section 2.3.1.1 Powers of Entry* for further details.

1.7.2 Safety of Equipment

The Customer will comply with all aspects of the *Ontario Electrical Safety Code* with respect to ensuring that equipment is properly identified and connected for metering and operation purposes and will take whatever steps necessary to correct any deficiencies in a timely fashion. If the Customer does not take such action within a reasonable time, PUC may disconnect the supply of power to the Customer.

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 installation or maintenance of distribution lines and equipment, endanger the equipment of PUC, interfere with the proper and safe operation of PUC's facilities, or adversely affect compliance with any applicable legislation.

1.7.3 Operating Control

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

Except for an employee or agent of PUC or other Person lawfully entitled to do so, no Person shall remove, replace, alter, repair, inspect or tamper with PUC equipment.

Customers will be required to pay the cost of repairs or replacement of PUC's equipment that has been damaged or lost by the direct or indirect act or omission of the Customer or their agents. The physical location on Customers' premises at which a distributor's responsibility for operational control of distribution equipment ends is defined by the DSC as the "operational demarcation point".

1.7.4 Repairs of Defective Customer Electrical Equipment

The Customer will be required to repair or replace any equipment owned by the Customer that may adversely affect the integrity or reliability of PUC's distribution system. If the Customer does not take such action within a reasonable time, PUC may disconnect the supply of power to the Customer. PUC's policies and procedures with respect to the disconnection process are further described in these Conditions. PUC will transfer its equipment to the new Customer facilities at no charge.

1.7.5 Safekeeping of PUC Assets

Property owners are responsible for the maintenance of their facilities and safekeeping of PUC assets located on their property.

1.7.6 Contractor Approval

In those instances where the Customer has the authority to hire a contractor to construct plant that will become part of PUC's system, the contractor shall be subject to the approval of PUC. Also, PUC shall have the right to require the contractor to submit proof of previous experience and satisfactory performance and PUC shall have the right to investigate such proof prior to the Owner awarding a contract for the work to the contractor.

1.8 Disputes

Any dispute between Customers, Embedded generators or Retailers and PUC shall be settled according to the dispute resolution process specified in PUC's Distribution Licence.

If a Customer or other Market Participant has a complaint regarding services provided by PUC under its Distribution Licence, the party may contact one of PUC's Customer Experience representatives at 705-759-6500, during normal business hours, or e-mail the complaint to customer.care@ssmpuc.com.

If a complaint cannot be resolved by a PUC representative, PUC will refer the complaint to an independent third-party complaints resolution agency that has been approved by the Ontario Energy Board. Until such time as the Ontario Energy Board approves such an independent third-party complaints resolution agency, such complaints will be referred to the Ontario Energy Board, which has assumed this role.

1.9 Liability

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

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

Despite the above, neither PUC 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.

1.10 Force Majeure

Neither party shall be held to have committed an event of default in respect of any Obligation under these Conditions if prevented from performing that Obligation, in whole or in part, because of a force majeure event.

If a force majeure event prevents a party from performing any of its Obligations under these Conditions and the applicable Connection Agreement, that party shall:

- Promptly notify the other party of the force majeure event and its assessment in good faith of the effect that the event will have on its ability to perform any of its Obligations. If the immediate notice is not in writing, it shall be confirmed in writing as soon as reasonably practicable.
- not be entitled to suspend performance of any of its Obligations under these Conditions to any greater extent or for any longer time than the force majeure event requires it to do so;
- use its best offers to mitigate the effects of the force majeure event, remedy its inability to perform, and resume full performance of its Obligations;
- keep the other party continually informed of its efforts; and
- provide written notice to the other party when it resumes performance of any Obligations affected by the force majeure event.

SECTION 2 DISTRIBUTION ACTIVITIES (GENERAL)

2.1 Connections

2.1.1 Customer That 'Lies Along'

For the purpose of these Conditions 'lies along' means a Customer property or parcel of land that is directly adjacent to or abuts onto the public road allowance or easement where PUC has distribution facilities if it can be connected to without an expansion or enhancement and meets the conditions listed in these Conditions.

Under the terms of the DSC and *the **Electricity Act**,* PUC is obliged to connect any Customer that lies along its lines. Alternatively, PUC may deny connection for the reasons described in Subsection 2.1.3.

2.1.1.1 Delivery Point

Customers may accept service from the street or rear lot, at the point (Delivery Point) nearest to PUC's distribution facilities satisfactory to PUC or will be required to pay for all additional costs necessary to provide service at a location of their choice. Final determination of the Delivery Point will be made by PUC.

The location of the Customer's service entrance equipment will be subject to approval of PUC and ESA.

2.1.1.2 Connection Process & Timing

The Customer or their authorized representative shall consult with PUC concerning the availability of supply, the voltage of supply, service location, metering, locations of other utility services, and any other details. These requirements are separate from and in addition to those of ESA. PUC will confirm, in writing, the characteristics of electric supply.

The Customer or their authorized representative shall make an application for new or upgraded electric service and temporary power service in person. The Customer is required to provide PUC with 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.

The minimum time intervals required for PUC to energize new or enlarged electrical services where a suitable supply circuit exists once all conditions of PUC have been met, are as follows:

- three working days for Residential Service
- five working days for General Service

These time intervals are measured from receipt of all the following:

- written approval from ESA;
- a service contract completed by the Customer;
- a Customer security deposit, where required; and
- all required underground plant locates have been received.

Prior to energizing, a field verification inspection by PUC may be necessary. If deficiencies are noted, a second inspection will be performed by PUC, at its expense, to ensure corrections have been completed. Any subsequent costs, incurred by PUC due to continuing deficiencies, will be at the Customer's expense.

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

The supply of electricity is conditional upon PUC being permitted and able to provide such a supply, obtaining the necessary apparatus and material and constructing works to provide the service. Should PUC not be permitted or able to do so, it is under no responsibility to the Customer whatsoever and the Customer releases PUC from any liability in respect thereto.

2.1.1.3 Underground Cable Locates

Upon request, PUC will locate, if able, all PUC owned or maintained secondary and primary underground cables without charge during normal business hours or in the event of an emergency at any time. If PUC is unable to locate an underground cable it will provide a service disconnection and reconnection during its normal business hours without charge.

All other requests for locates, excluding emergencies, shall be charged at applicable overtime rates.

2.1.2 Expansions/Offer to Connect

Under the terms of the DSC, PUC is obliged to make an offer to connect any Customer that is in PUC's service territory that cannot be connected without expansion or enhancement. Alternatively, PUC may deny connection for the reasons described in Subsection 2.1.3.

The detailed offer to connect shall be made within a reasonable time from the request for connection and it shall be fair, reasonable, and based on PUC's design standards. The offer to connect shall include:

- a description of materials and labour required;
- an estimate of the amount that will be charged to the Customer;
- a description and estimate of work for which the Customer may obtain an alternative bid and, if so, the process by which the Customer may obtain the alternative bid.

The estimate shall delineate estimated costs specifying those costs attributable to engineering design, materials, labour, equipment, and administrative activities.

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

If the offer is an estimate of the costs to construct the expansion and not a firm offer, the final amount charged to the Customer shall be based on actual costs incurred. PUC shall calculate the one estimate and the final amount of Customer contribution at no expense to the Customer.

PUC shall inform the Customer that they have the choice to obtain alternative bids for the connection and expansion facilities from qualified contractors if the following conditions apply:

- the project requires a capital contribution from the Customer; and
- construction would not involve work on existing circuits.

If a Customer is interested in obtaining an alternative bid, PUC shall inform the Customer that the Customer may choose a qualified contractor, subject to PUC approval, to perform the work eligible for an alternative bid.

If a Customer chooses to pursue an alternative bid and elects to use the services of an approved contractor for an aspect of the expansion project, PUC shall:

- require the Customer to enter into a Construction Agreement with PUC;
- require the Customer to hire and pay the contractor's costs for the work eligible for the alternative bid and to assume full responsibility for the construction of that aspect of the expansion project;
- require the Customer to be responsible for administering the contract or to have the Customer pay PUC to do this activity on a 'fee for service' basis. Administering the contract includes acquisition of all required permissions, permits and easements; and
- inspect and approve all aspects of the constructed facilities as part of system commissioning activity, prior to connecting the constructed facilities to the existing distribution system, at cost to the Owner.

PUC may charge a Customer that chooses to pursue an alternative bid any costs incurred by PUC associated with an expansion project, including but not limited to the following:

- costs for additional design, engineering or installation of facilities required to complete the projects that were incurred in addition to the original offer to connect; and
- costs for inspection or approval of the work performed by the contractor hired by the Customer.

If PUC must construct new facilities, alter existing facilities, or increase the capacity of existing distribution system facilities to connect a specific Customer or group of Customers, PUC shall perform an economic evaluation of the expansion project to determine if the future revenue from the Customer(s) will pay for the capital and incremental on-going maintenance costs of the expansion project. The economic evaluation shall be performed in accordance with *Appendix B - Demarcation Points and Connection Charges* of the DSC.

2.1.2.1 Capital Contribution Policy

PUC has established its capital contribution policy in accordance with the DSC to ensure that the cost of an expansion to its electric distribution facilities required to connect a new customer or group of Customers or to serve the increased load of an existing customer shall be adequately funded by that customer or group of Customers.

The underlying principle is that the forecasted revenue over a specified time frame that is expected to result from the added customer load should pay for the up-front capital costs and incremental ongoing maintenance costs of the expansion. Otherwise, the customer should pay for the shortfall in revenue in

the form of a capital contribution. In summary, the customer pays for the shortfall, if any, between the cost of the expansion and the net present value of the customer's revenue stream.

Appendix B - Demarcation Points and Connection Charges, Methodology and Assumption for an Economic Evaluation, of the DSC details this methodology to be used in order to perform an economic evaluation of the expansion. If a shortfall between the present value of the projected costs and revenues is determined from the economic evaluation, the Customer will be required to provide a capital contribution equal to 100% of the shortfall, for all customer classes.

A project is considered to be an expansion to PUC owned facilities in order to connect a customer if it involves any of the following:

- addition of poles beyond the end of an existing line;
- extension of underground primary;
- addition of primary conductors, including pole replacements if required, either overhead or underground to existing poles or duct banks;
- re-conductoring of primary lines, including pole replacements if required;
- upgrade or addition of a distribution station or transformer station; or
- any other significant upgrade to the distribution system. (e.g., reclosers, breakers, capacitor banks)

In designing system expansions required to meet customer needs, PUC shall take into account the requirement to provide for general enhancement and reinforcement of distribution facilities in order to satisfy ongoing growth and system reliability. Expansions shall be designed based on PUC's construction standards, utilizing its standard materials, and satisfying the customer's needs.

The customer shall only be responsible for the costs of the expansion directly related to satisfying their needs. Construction of system over-capacity beyond the customer's requirements shall be borne by PUC.

2.1.3 Connection Denial

The DSC sets out the conditions for PUC to deny connections. PUC 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;
- violations of conditions in PUC's Licence;
- use of a distribution system line for a purpose that it does not serve, and that PUC 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 PUC's 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 PUC.

In accordance with the DSC, if PUC refuses to connect a Customer in its service territory that 'lies along' one of its distribution lines, PUC shall inform the person requesting the connection of the reason(s) for not connecting, and where PUC is able to provide a remedy, make an offer to connect. If PUC is unable to

provide a remedy to resolve the issue, it is the responsibility of the Customer to do so before connection can be made.

2.1.4 Inspection Before Connections

All new, altered or enlarged Customer electrical installations shall be inspected and approved by ESA. PUC is prohibited by law from energizing installations which have not be approved by ESA and therefore requires notification from the Authority of its approval prior to the connection of a Customer's service.

Services that have been disconnected for a period of six (6) months or longer shall also be re-inspected and approved by ESA prior to re-connection.

Temporary services, for construction purposes, are approved by ESA for a period of twelve (12) months and must be re-inspected should the period of use exceed twelve (12) months.

Customer-owned substations must be inspected by both PUC and ESA.

Duct banks that are designated for PUC owned primary cables, shall be inspected, and approved by PUC prior to the pouring of concrete and again before backfilling. The completed ducts must be rodded by the contractor in the presence of a PUC inspector and shall be clear of all extraneous material. A mandrel supplied by PUC, will be passed through each duct. In the event ducts are blocked by ice, the Owner's representative will be responsible for clearing the ducts prior to the cable installation. Connection to existing concrete duct banks or manholes will be done only by PUC.

Transformer foundations or electrical rooms or vaults shall be inspected and approved by PUC prior to the installation of equipment.

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

2.1.5 Relocation of Plant

When requested to relocate distribution plant, PUC shall exercise its rights and discharge its obligations in accordance with existing legislation, such as the *Public Service Works on Highways Act,* provincial or federal regulations, formal agreements, easements, and common law. In the absence of any existing arrangements, PUC is not obligated to relocate the plant. However, PUC shall resolve the issue in a fair and reasonable manner which shall include a response to the requesting party explaining the feasibility of the relocation and providing a fair and reasonable charge for relocation based on cost recovery principles.

The Customer may be required to pay all of the costs incurred by the relocation.

2.1.6 Easements

Where required, the Customer shall grant easements, at no cost to PUC and free and clear of all encumbrances, to permit installation and maintenance of service. The width and extent of such easements shall be determined by PUC and shall be granted prior to connection of the service.

Easements are necessary whenever PUC's plant, that is required to serve the Customer, is to be located on or must cross over private property not owned by that Customer.

The Customer must prepare a reference plan and associated easement documents to the satisfaction of PUC's solicitor and register same on title, all at its own cost. Details will be provided upon application for service.

2.1.7 Contracts

A contract to supply power may not be transferred by a Customer to another party.

2.1.7.1 Standard Form of Contract - change to "Contract for New or Modified Electricity Service

PUC shall only connect a Customer for a new or modified supply of electricity upon receipt by PUC of a completed and signed contract for service in a form acceptable to PUC, payment to PUC of any applicable connection charge, and an inspection and approval by the Electrical Safety Authority of the equipment for the new service. A contract to supply electricity is not transferrable.

2.1.7.2 Implied Contract

In all cases, notwithstanding the absence of a written contract, the taking and using of electrical energy from PUC's distribution system by any Person or Persons implies and constitutes the acceptance of the terms and conditions of all regulations, conditions and rates as established by PUC in its Conditions and rates schedule, and in the various codes and legislation listed in Section 1.2 above. Such acceptance and use of energy shall be deemed to be the acceptance of a binding contract with PUC and the Person(s) so accepting shall be liable for payment for such energy and the contract shall be binding upon the Person's heirs, administrators, executors, successors, or assigns.

In the absence of a contract for electricity with a tenant, or in the event electricity is used by a Person(s) unknown to PUC, then the cost for electricity consumed by such Person(s) is due and payable by the Owner(s) of such property.

2.1.7.3 Continuing Service Agreement

If it becomes necessary to disconnect power to any unit, or in the event of a vacancy of any unit, PUC shall not be liable for any damage that might result. The Owner may assume responsibility for such accounts so that power to the unit may be maintained at all times by entering into a Continuing Service Agreement.

The standard account setup fee will not apply for the transfer of an account to the Owner.

2.1.7.4 Payment by Building Owner

The Owner of a building is responsible for payment of electricity supplied to the building by PUC unless PUC is requested in writing to supply energy by an occupant(s) of the building.

Where the Owner of the building wishes to terminate the supply of electricity to their building, the Owner must notify PUC in writing. Until PUC receives such written notice from the Owner, the owner and/or the occupant(s), as applicable, shall be responsible for payment to PUC for the supply of electricity to such building. PUC may refuse to terminate the supply of electricity to an Owner's building when there are occupant(s) in the building. An Owner is responsible for compliance with the Tenant Protection Act. PUC shall not terminate the supply of electricity when requested by the building owner for the purpose of evicting the tenant contracted with PUC for the supply of electricity.

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

2.1.7.5 Generation Connection Agreement

Contracts with Generators are customized in accordance with the service requested by the Customer in accordance with OEB guidelines.

2.2 Disconnection

PUC's disconnection procedures are consistent with the DSC. PUC may disconnect the supply of electrical energy to a Customer as specified in Section 2.1.3 Connection Denial, consistent with Sections 29 and 31 of the *Electricity Act* and good utility practice for causes not limited to the following reasons:

- non-payment of account to PUC, Retailer or Wholesaler. PUC may disconnect the supply of electrical energy to a Customer for non-payment of account;
- adverse effect on the reliability and safety of the distribution system;
- imposition of an unsafe worker situation beyond normal risks inherent in the operation of the distribution system. 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 PUC or the public, service may be discontinued without notice;
- a material decrease in the efficiency of the distribution system;
- a materially adverse effect on the quality of distribution services received by an existing connection. If an undesirable system disturbance is being caused by the Customer's equipment, the Customer will be required to cease operation of the equipment until satisfactory remedial action has been taken. If the Customer does not take such action within a reasonable time, PUC may disconnect the supply of power to the Customer;
- inability of PUC to perform meter reading, planned inspections and maintenance;
- failure of the Customer or Consumer to comply with a directive of PUC made for purposes of meeting its license obligations;
- energy diversion, fraud, or abuse on the part of the Customer. Upon identification of possible unauthorized energy use, PUC shall notify, if appropriate, Measurement Canada, ESA, police officials, Retailers that service consumers affected by the unauthorized energy use or other entities as may be required. PUC may recover from the parties responsible for the unauthorized energy use all costs incurred by PUC arising from unauthorized energy use including inspection or repair costs; and
- PUC may disconnect the supply of electrical energy to a Customer without notice in accordance with a court order or for emergency.

Such disconnection does not relieve the Customer of the liability for arrears or the basic monthly charge for the balance for the term of the contract nor shall PUC be liable for any damage to the Customer's premises resulting from such discontinuance of service.

The physical process by which PUC disconnects or reconnects shall reflect good utility practice and shall consider safety as a primary requirement.

Prior to disconnecting a property, PUC shall provide the customer and the occupant(s) with the current, standard Electricity Disconnection Fire Safety Notice, either for residential dwelling units (houses or apartment units) or other buildings and occupancies as the case may be, published by the Office of the Fire Marshall, Ministry of Community Safety and Correctional Services, and distributed through its website or otherwise.

PUC shall not disconnect a consumer from the distribution system at the direction of a retailer for an amount payable by a consumer to a retailer that is overdue.

2.2.1 Disconnection for Arrears

PUC will adhere to the following process for disconnecting a Customer as a result of non-payment of account:

1. An overdue amount reminder is sent to Customers in the form of an automated phone call three (3) calendar days after the due date.
2. If payment is not received within ten (10) calendar days of the due date, a written fourteen (14) calendar day Disconnection notice is sent to Customers by mail. Prior to the issuance of the notice, any security deposits on account will be applied towards the arrears. The Disconnection notice will provide the earliest and latest disconnect dates that a disconnection may occur.
3. If payment is not received within seventeen (17) calendar days of the date the notice is sent, the customer is sent a 48-hour notice prior to disconnection in the form of an automated phone call.
4. If payment is not received or the customer has not been in contact with PUC to make satisfactory payment arrangements the service is eligible for disconnection. If payment arrangements have been made and not kept, the service may be disconnected without any further notice.

Once disconnected, the service will not be restored until satisfactory payment arrangements have been made.

A service charge will apply to reconnect the service after payment has been made. Reconnect fees will be waived for Customers deemed low income.

2.3 Conveyance of Electricity

2.3.1 Limitations to Guaranty of Supply

PUC shall follow good utility practice and 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 for damages to the Customer by reason of any failure in respect thereof.

Customers requiring a higher degree of security than that of normal supply are responsible for providing their own back-up or standby facilities. Customers who require an uninterrupted source of power for life support equipment must provide their own equipment for these purposes.

PUC will occasionally be required to interrupt the power supply to a Customer, typically during emergency repairs, or while performing construction and maintenance duties. Power interruptions initiated by PUC shall be based on practical and cost-effective considerations as well as the extent of inconvenience to the Customer. PUC will attempt to provide the Customer/Consumer with reasonable advance notice of planned power interruptions, with the exception of an emergency situation.

2.3.1.1 Powers of Entry

Section 40 of the Electricity Act 1998 confers upon PUC certain rights to enter on private property to perform various activities. PUC shall have the right to access a property, in accordance with section 40 of the Electricity Act, and any successor acts thereto. PUC may require a Customer to provide emergency access to their premises in order to operate equipment that is either owned by the Customer or by PUC which is normally under PUC's operating control.

In summary, the Electricity Act empowers an employee or agent of PUC as follows:

(a) PUC may enter upon private property to inspect, maintain, repair, alter, remove, replace, or disconnect wires or other facilities owned by PUC;

(b) PUC may enter upon private property to install, inspect, read, calibrate, maintain, repair, alter, remove, or replace a meter owned by PUC;

(c) if PUC has the necessary consent of an owner or occupant to provide service to part of a building and other parts of the building are owned by different owners or are in the possession of different occupants, PUC may enter on the other parts of the building to install, construct, or maintain its service connection;

(d) if PUC has the necessary consent of an owner or occupant to provide service to land and the owner or occupant shares a mutual driveway or other common passage with the owners or occupants of neighbouring land, PUC may enter the common passage to install, construct or maintain its transmission or distribution system, including anything necessary to install the service;

(e) PUC may enter any land for the purpose of cutting down or removing trees, branches, or other obstructions if, in the opinion of PUC, it is necessary to do so to maintain the safe and reliable operation of its distribution system;

(f) PUC may shut off or reduce the supply of electricity to a property or connect or disconnect equipment or open or close circuits;

If an employee or agent of PUC exercises any power of entry conferred under the Act, the person shall:

(a) upon request, provide proper identification;

(b) provide reasonable notice of the entry to the occupier of the property;

(c) in so far as is practicable, restore the property to its original condition; and

(d) provide compensation for any damages caused by the entry.

2.3.1.2 Emergency Service (Trouble Calls)

All equipment on private property apart from those items owned by PUC such as transformers, meters, etc., belong to and are the responsibility of the Customer.

When electrical supply is interrupted, the Customer should first ensure that failure is not due to opened breakers or fuses within the installation. If there is a partial power failure, the Customer should obtain the services of an electrical contractor to carry out necessary repairs. If, on examination, it appears that PUC's main source of supply has failed, the Customer should report these conditions at once to PUC. Should it be confirmed that the failure is on PUC's supply, PUC shall reimburse the Customer for any costs incurred to have a contractor inspect the service.

PUC does provide emergency service to determine the cause of electrical failure where, in the opinion of PUC, or as specifically set out elsewhere in these Conditions, such service is warranted. Where temporary or permanent repairs are made by PUC to a Customer's circuits or equipment, PUC shall render a charge.

The provision of emergency services does not relieve the Customer of his responsibility to maintain his circuits and equipment in a safe and efficient condition.

When temporary repairs are made in an emergency by PUC to a Customer's circuits or equipment, it is the Customer's responsibility to have permanent repairs made as soon as possible. PUC will advise ESA of any such temporary repairs.

If, in the opinion of PUC, unsafe conditions exist on a Customer's property, PUC will request ESA to inspect the conditions.

2.3.1.3 Service to Customers After Normal Hours

In the event of an emergency, outside of normal working hours, PUC can be contacted by telephone at 705-759-6555. PUC will initiate restoration efforts as rapidly as practicable.

Requests for service outside normal hours that are not of an emergency nature will be treated as follows:

- calls which indicate damage or impending damage to PUC plant or property are attended to immediately. PUC will initiate restoration efforts as rapidly as practicable and costs are borne by PUC, unless others are found liable;
- billing inquiries, requests for underground cable locations, new service connections or any other services not considered urgent are attended to on the next working day;
- requests for service work on PUC-owned equipment, where the Customer requires the service outside PUC's normal working hours, are attended to immediately and the Customer is charged for actual labour costs;
- requests to remove animals from PUC-owned equipment are attended to at PUC's expense;
- when a Customer cannot allow an interruption of supply during PUC's normal working hours to permit PUC to provide new or upgraded services to that Customer only, then PUC will arrange for the interruption during other than normal hours and the Customer may be charged actual costs for labour and materials;
- when a Customer cannot allow an interruption of supply during PUC's normal working hours to permit PUC to provide new or upgraded services to another Customer or to maintain and improve its own system under non-emergency conditions, then PUC will attempt to arrange for the interruption during other than normal hours at no cost to the Customer; and
- when a Customer arranges with PUC for work to be performed on their service during other than normal working hours, the Customer shall pay actual costs for labour and materials.

2.3.1.4 Enhancements

PUC shall continue to plan and build its distribution system for reasonable forecast load growth. PUC may perform enhancements to its distribution system for the purpose of improving system operating characteristics or relieving system capacity constraints. In determining system enhancements to be performed on its distribution system, PUC shall consider the following:

- good utility practices;
- improvement of the system to either meet or maintain required performance-based indices;
- current levels of customer service and reliability or potential improvement from the enhancement;
- costs to customers associated with distribution reliability and potential improvement from the enhancement.

Refer to section 2.1.2.1 Capital Contribution Policy for further details.

2.3.2 Power Quality

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

Upon determination of the cause of the power quality concern, where it is deemed a system delivery issue and where industry standards are not met, PUC will recommend and/or take appropriate mitigation measures. PUC will endeavor to control power quality issues on its distribution system found to be detrimental to Customers. If PUC is unable to correct the problem due to the impact on other Customers, then it is not obligated to make the corrections. PUC will use appropriate industry standards (such as IEC or IEEE standards) as a guideline. If the problem lies on the Customer side of the system, PUC may seek reimbursement for the time spent investigating the problem.

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

PUC, at its discretion, may require the Customer to install additional facilities to correct the undesirable effect. All costs associated with such installations will be at the Customer's expense.

2.3.3 Electrical Disturbances

PUC shall practice reasonable diligence to maintain voltages as described in Section 2.3.5 Voltage Guidelines. Typical voltage disturbances that can be expected on the distribution system are capacitor switching transients, voltage sags caused by faults on adjacent feeders, and auto re-closure operations. It is the Customer's responsibility to protect themselves from any external disturbance.

More sensitive electronic equipment such as computers can be seriously affected by variations in quality of supply voltage. Customers who require an uninterrupted source of power supply or a supply free from disturbances are responsible for their own equipment for these purposes.

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 and/or electrical rooms.

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 PUC's supply.

Customers must ensure that their equipment does not cause any disturbances such as harmonics, spikes, or sags that might interfere with the operation of adjacent Customer equipment. 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 PUC. Examples include large motors, welders, and variable-speed drives. In planning the installation of such equipment, the Customer is required to consult with PUC prior to purchase or installation.

Customers who are found to cause system disturbances will be responsible for resolution of the disturbance at their expense. Failure to do so may result in a disconnection from PUC's distribution system.

2.3.4 Standard Voltage Offerings

2.3.4.1 Secondary Voltage and Transformation

PUC standard secondary voltage (low voltage) offerings include the following voltages and transformation capacities:

(a) Supplied overhead from PUC transformers located on the street:

- 120/240 volts - single-phase, 3-wire up to 200 A (50 kVA)
- 120/208 volts - three-phase, 4-wire up to 200 A (75 kVA)
- 600/347 volts - three-phase, 4-wire up to 100 A (112 kVA).

(b) Supplied underground from PUC transformers located on the street:

- 120/240 volts - single-phase, 3-wire up to 400 A (100 kVA)
- 120/208 volts - three-phase, 4-wire up to 400 A (150 kVA)
- 600/347 volts - three-phase, 4-wire up to 100 A (112 kVA).

(c) Supplied overhead or underground from PUC transformers located on the Customer's property:

- 120/240 volts - single-phase, 3-wire up to 600 A (167 kVA pad mount)
- 120/208 volts - three-phase, 4-wire up to 1,200 A (500 kVA)
- 600/347 volts - three-phase, 4-wire up to 2,400 A (2500 kVA).

Multiple services to an individual property should be avoided where practical. When multiple services are required, all costs to supply the additional service will be at the property owner's expense.

PUC will supply and maintain transformers up to and including the stated capacities at no cost to the Customer subject to Economic Evaluation and the following requirements:

- Customers will not be permitted to supply their own transformation, provided their needs can be adequately satisfied through the use of a reasonable number of PUC standard stock units;
- where standard PUC units are not suitable and the Customer supplies and owns the transformation, a *Transformer Allowance for Ownership* will be applied, in accordance with PUC's OEB approved *Tariff of Rates and Charges*. However, when the owner of a premise chooses to install individual metering of occupancy units, the transformer allowance will not be available;
- Customers are required to install secondary metering for each unit supplied. Primary metering is not acceptable for installations involving multiple transformers;
- where multiple transformers are installed, the individual meters can be totalized to produce one overall demand reading, provided the customer pays the initial capital cost of the totalizing recorder;
- Customers must supply all the civil works and installation costs required to accommodate the transformer(s);
- maximum transformer sizing is not necessarily limited to 2,500 kVA. Each case above 2,500 kVA will be evaluated on its own merit.

2.3.4.2 Primary Voltage

PUC standard primary supply voltages (high voltage) include the following:

- 12,470/7,200 volt, 3-phase, 4-wire, solidly grounded neutral;
- 4,160/2,400 volt, 3-phase, 4-wire, solidly grounded neutral;

- 34,500/19,900 volts, 3-phase, 4-wire, solidly grounded neutral.

2.3.5 Voltage Guidelines

PUC maintains service voltage at the Customer's service entrance within the guidelines of Canadian Standards Association ("CSA") Standard CAN3-C235 (see *Appendix E* herein), which allows variations from nominal voltage of:

- 6% for Normal Operating Conditions,
- 8% for Extreme Operating Conditions.

Where voltages are 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 are 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 various factors such as the location and nature of load or circuit involved, the extent to which limits are exceeded with respect to voltage levels and duration, etc.

2.3.6 Back-up Generators

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

For grid-connected (parallel) embedded generators, see section 3.1 below.

2.3.7 Metering

2.3.7.1 General

PUC will provide, install, and maintain revenue meters, instrument transformers, test panels and all interconnecting wiring required to meter the Customer at the utilization voltage. Such equipment shall remain the property of PUC.

The Customer must provide all the associated meter bases, cabinets, switchboards, or switchgear cubicles, at their cost, required to accommodate the PUC's metering equipment and all subject to PUC and ESA approval.

All PUC equipment on the Customer's premises is in the care of and at the risk of the Customer, and if damaged, other than for deterioration from normal usage, the Customer will pay for the cost of repair or replacement.

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

All disconnect switches and circuit breakers on the line side of PUC's metering shall have provisions for sealing and padlocking. This includes feeder breakers supplying dry-core transformers which in turn feed meter centres.

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

Installation of meters relative to the service entrance main switch shall be as follows:

Voltage	Service Size	Meter/Main Switch Configuration
120/240 and 208/120	up to 200A	meter ahead of main switch
120/240	400A self-contained	meter ahead of main switch
120/240 and 208/120	greater than 200A	main switch ahead of meter
600/347	all sizes	main switch ahead of meter

All auxiliary connections to circuits such as fire alarms, exit lights and customer instrumentation shall be made to the load side of PUC's metering.

Normally the service will not be energized until the outside finish in the area of the meter has been completed. If exceptions are made to this, then the Owner/Developer/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 and will be entirely responsible for all costs for materials and labour for repairing or replacing a damaged meter.

Primary metering is not generally available but will be considered only in special circumstances following consultation with PUC. Customer-owned substations may require primary metering and the provisions required for these installations shall be specified and approved by PUC for each application. The Owner will be responsible for the additional cost of primary metering over standard secondary metering. Primary Metering Allowance for transformer losses shall be applied to measured demand and energy in accordance with PUC's OEB approved *Tariff of Rates and Charges*.

All General Service Customers up to 50 kilowatts will be metered by a watt-hour meter and over 50 kilowatts by a demand watt-hour meter or interval meter, as specified herein.

2.3.7.2 Meter Location

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

Meters shall be located as near as possible to the service entrance box in a location approved by PUC and shall be readily accessible at all times.

Meters for new or upgraded residential services shall be installed in accordance with the requirements of PUC and the Ontario Building Code including but not limited to the following;

- Shall be outdoors in a location that is accessible to PUC at all times
- Shall be mounted such that the midpoint of the meter after installation will be 1.75m (5ft 9in) +/- 0.10m (4") from finished grade.

The Owner shall provide a clear, safe working space of not less than 1.2 m in front of the installation extending from the floor to ceiling with a minimum ceiling height of 2.1 m so as to ensure the safety of PUC personnel who may be required to work on the installation.

Provisions for metering shall facilitate a practical mounting height for revenue meters as follows:

- Minimum: 1.0 m above finished floor to center of lowest meter for metering centres only, or
- Minimum: 1.7 m above finished floor or grade to center of a single meter, and
- Maximum: 2.0 m above finished floor to center of top most meter in all cases.

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 as agreed to by PUC, as follows:

a) an electrical room reserved solely for metering equipment, or

b) metal enclosed switchgear approved by PUC, or

c) a metal metering cabinet.

Where there is the possibility of danger to workers or damage to equipment from moving machinery, dust, fumes or moisture, the Customer shall provide protective arrangements, to the satisfaction of PUC.

Where excessive vibration may affect or damage metering equipment, adequate shock-absorbing mounting shall be provided and installed by the Customer. Similarly, where there is the potential of a PUC meter being damaged by ice or snow load on the exterior of a building, the Customer shall install appropriate guarding at their expense.

2.3.7.3 Multi-unit Buildings

Residential Rental Apartments

Multi-unit residential apartment buildings may be bulk-metered or individually metered, at the Owner's discretion. In all cases, the Owner is responsible for the installation of all equipment necessary to accommodate PUC's meters in accordance with PUC standards and subject to ESA inspection approval.

Where an Owner chooses to install individual meters, the Owner shall provide for the following additional requirements:

- Group multiple meters in a common area or accessible from an outside door. The Owner shall provide PUC with keys to access the meter room unless PUC determines, in its sole discretion, that the meter room can be easily accessed during normal working hours.
- Permanently label each meter base to identify the unit served.
- Provide a disconnect switch for each meter at the meter location.
- Arrange for individual service contracts:
  - For new construction with individual metering, PUC will not energize a meter to a unit unless a service contract has been entered into, either by the tenant or the Owner.
  - Where an Owner chooses to convert from bulk metering to individual meters, at least one month prior to conversion, tthe Owner shall arrange for each tenant to enter into service contracts with PUC. Standard billing and security deposit policies and account set-up fees apply to each tenant requesting service. The Owner shall enter into a general service contract(s) for the common facilities in the building. An account set-up fee will apply. Final conversion shall not occur until a service contract has been entered into for each unit and all common facilities.

Non-Residential

For non-residential or mixed-use commercial buildings, individual metering may be provided, where specific areas are clearly and permanently defined and in other respects are separate entities.

Multiple meters shall be grouped where practicable and be accessible from a public area or an outside door. The Owner must provide PUC with keys to access the meter room unless PUC determines the room to be easily accessible during normal working hours.

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

The Customer shall permanently and legibly identify all metered services with respect to the correct municipal 911 address and unit number. 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 ensure that all service identifications are accurate and will be held totally responsible for any errors arising from improper identification. The Owner shall inform PUC immediately of any changes made in the unit numbers.

2.3.7.4 Current Transformer Boxes (Meter Cabinets)

Where required by these Conditions, the Owner shall supply, install, and maintain a current transformer box (meter cabinet) to PUC's requirements. Cabinets shall be CSA approved and constructed from sheet metal, minimum of 14 AWG. The paint finish shall be gray baked enamel A.S.A. 61. Cabinets shall be complete with a removable back plate and hinged doors with provision for a PUC padlock. Diagonal cable installation is not acceptable, and failure to comply with this requirement will necessitate the removal and relocation of the cable feeds.

Meter cabinets location should be reviewed and approved with PUC. In the case of AMI meter cabinets, it is often preferable to install the cabinet on the exterior of buildings to improve radio communication. In other cases, meter cabinets are better installed indoors unless special permission is granted by PUC to install the meter cabinet outside. Cabinets for outdoor locations approved by PUC shall be weatherproof. Also, cabinets in indoor locations which may be exposed to dirt, dust or moisture shall be weatherproof.

The Owner must supply, install, and maintain a CSA-approved meter socket with the following specifications.

- all 3-phase, 4-wire meter sockets must have an insulated neutral.
- all 5-jaw kits (network meters) are to be installed in the 9 o'clock position.
- all 7-jaw kits are to be installed in the 6 o'clock position.
- each socket will include a meter retaining ring;
- all bases will be installed in a location which is and will remain unobstructed by such items as fences, hedges, expansions, sunrooms, porch enclosures and any other impediments.

The table below summarizes PUC requirements for the various meter sockets and cabinets to be supplied by Owners.

TABLE: 2.4.7.4 METER SOCKET AND CABINET SIZES

Service Size	Volts	Phase	Meter Socket or Cabinet Size (inches)	Height Above Floor to Cabinet Bottom (mm)
Up to 200 Amp	120/240	1	4 terminals	See Section 2.3.7.1.1
	120/208	2 + N	5 terminals (network)	
	120/208	3	7 terminals	
	347/600	3		
400 Amp & Larger	120/240	1	20 x 30(horizontal) x 10 or self-contained 400 Amp. meter base	1200 min. to 1500 max.
	120/208	3	48 x 48 x 12	600 min. to 900 max.
	347/600	3		
Switchgear	120/208 or 347/600	3	20 x 30(vertical) x 10	1000 min. to 1500 max.
Switchgear Alternate Arrangement	120/208 or 347/600	3	20 x 30(vertical) x 10 plus 36 x 36 x 12	1000 min. to 1500 max.

Note: Load and line entry points shall be approved by PUC prior to installation.

2.3.7.5 Metal Clad Switchgear

PUC will provide and install colour-coded secondary wiring, instrument transformers and revenue meters for metal clad switchgear installations. The following requirements will apply, and the Owner is required to:

- consult with PUC regarding the metering facilities to be provided by the Owner;
- submit two copies of the manufacturer's switchgear drawings, for approval, dimensioned to show provision for and arrangement of PUC's metering equipment;
- provide complete shipping instructions, including the name and address of the manufacturer, for instrument transformers for those projects where these are to be provided by PUC for installation by the switchgear manufacturer;
- provide and install the metering cabinet and conduit;
- ensure each main bus bar is drilled and thread tapped 10-32 or 10-24 on the line side of the current transformer;
- install 37 mm rigid conduit or any equally approved conduit of a size specified by PUC shall be installed between the current transformer compartment of the switchgear and the meter cabinet for separations up to 30 m;
- for conduit installations greater than 30 m in length or where several bends are necessary, larger conduits or other special provision may be required, at the discretion of PUC.

2.3.7.6 Interval Metering

PUC may install a demand meter or interval meter for purposes of measuring demand in order to assign the Customer to a rate class or to set the appropriate distribution services rate for that Customer.

PUC shall provide a MIST meter installation for any existing Customer that has an average monthly peak demand during a calendar year of over 1,000 kW. PUC shall install a MIST meter on any new installation that is forecast by PUC to have a monthly average peak demand during a calendar year of over 500 kW, for the purposes of measuring energy delivered to the Customer.

PUC shall provide an interval meter to any Customer who submits to it a written request for such meter installation, either directly or through an authorized agent, in accordance with the Retail Settlement Code, subject to the following conditions:

- The Customer that requests interval metering shall compensate PUC 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) and 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.
- PUC shall determine whether the meter will be a MIST or MOST meter, subject to the requirements of the DSC.
- A communication system utilized for MIST meters shall be in accordance with PUC's requirements.

2.3.7.6.1 General Service Interval Metering

All new and upgraded General Service Customers with peak demand forecasted to be 500 kW or greater and any Customer requiring pulses for spot market pass-through pricing will be metered with remotely interrogated interval meters. The Customer shall install and maintain a 13 mm conduit from the communication entrance equipment and a direct-dial voice quality communication line, that is active 24 hours a day, to the metering location. The wall jack must be mounted within 300 mm of the meter cabinet. This communication line may be shared with a fax machine at PUC's sole discretion, provided PUC is able to communicate with the meter in an acceptable manner. The Customer shall be responsible for the ongoing monthly costs of operating the communication line.

Where such metering exists, PUC will consider Customer requests to provide a secondary pulse for load control or Customer-owned metering. All costs incurred would be at the expense of the Customer.

2.3.7.6.2 Residential Service Interval Metering

Residential Customers requesting interval metering will be required to meet the conditions of Section 2.3.7.3 Interval Metering.

2.3.7.6.3 Generation Facilities (Four Quadrant Metering)

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 a four-quadrant interval meter.

PUC shall meter Customers with generation that does not require an Ontario Energy Board licence, such as back-up capability or generation for load displacement, in the same manner as PUC's other load Customers.

PUC requires an Embedded Generator connected to PUC's distribution system to install its own meter in accordance with PUC's metering requirements and provide PUC with the technical details of the metering installation.

Where practical, metering for Embedded Generators shall be installed at the Point of Supply. If it is not practical to install the meter at the Point of Supply, PUC shall apply loss factors to the generation output in accordance with the loss factors applied for retail settlements and billing.

2.3.7.7 Meter Reading

PUC shall have the right to read any of PUC's electricity meters on the Customer's premises. The Customer must provide access for meter reading purposes. In the event that a reading cannot be obtained, the bill will be estimated using historical consumption values. Where premises are closed during PUC normal business hours, the Customer must, on reasonable notice, arrange access at a mutually convenient time during normal business hours. PUC shall also have the right to install remote meter reading technology on the customer premises.

2.3.7.8 VEE Process

Metering data collected by PUC shall be subjected to a validating, estimating, and editing (VEE) process if it is to be used for settlement and billing purposes. PUC's VEE processing is established according to local practice which is intended to be fair and reasonable and provides assurance that correct data is submitted to the settlement process. The VEE process shall do the following:

- Convert raw metering data into validated, corrected or estimated 'settlement-ready' metering data suitable for use in determining settlement amounts in accordance with the settlement schedule in the Retail Settlement Code.
- Detect errors in metering data introduced as a result of improper operational conditions and /or hardware/software malfunctions including failures of or errors in metering or communication hardware and metering data exceeding pre-defined variances or tolerances.
- Use operational system data, including historical generation and load patterns and data collected by PUC, as appropriate, for validating raw metering data and for editing, estimating and correcting metering data found to be erroneous or missing.

PUC's VEE process for data from non-interval and MOST meters shall compare energy and demand (if applicable) readings from at least one equivalent historical billing period using appropriate bandwidths by Customer Class and other specific criteria.

PUC's process for data from MIST meters considers industry standards specified by the IESO in its VEE process for registered wholesale meters.

PUC's documented VEE process and criteria is available for scrutiny by Customers, Retailers, the Board and Measurement Canada.

PUC shall comply with Measurement Canada standards as a minimum metering installation and measurement standard and may apply any other practices that exceed those standards.

2.3.7.9 Totalizing Meter Reads

Generally, all services will be metered on the low voltage side of the transformer (secondary metering). Where PUC provides multiple transformers, PUC will totalize the individual readings into one, provided the Owner pays the costs of totalizing equipment. The Customer will also be required to install and maintain an adequate communication line for remote reading of the totalizing equipment by PUC. Totalizing is done using MIST Meters connected to a phone line, interrogated by a third-party vendor using a meter data collection and processing application software. If totalizing is being done, the communications equipment outlined in 2.3.7.6.1 must be present. We are currently unable to totalize meter data using AMI meters due to their current configurations.

2.3.7.10 Final Meter Reading

When a service is no longer required or if the Customer is switching Energy Provider, the Customer shall provide PUC at least five business days' notice of the termination date so that PUC can obtain a final meter reading as close as possible to the final date. The Customer shall provide access to PUC and its agent(s) 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. After a final bill has been issued and a read is obtained an adjusted bill will be issued.

2.3.7.11 Faulty Registration of Meters

Metered 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. PUC's revenue meters are required to comply with the accuracy specifications established by the regulations under the above noted Act.

In the event of incorrect measurement, PUC 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 a reasonable sum for all the energy supplied based on the reading of any meter formerly or subsequently installed on the premises by PUC, 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. PUC will correct the bills for that period in accordance with the regulations under the above noted Act.

2.3.7.12 Meter Dispute Testing

Metering inaccuracy is an extremely rare occurrence. Most billing enquiries can usually be resolved between the Customer and PUC without resorting to the meter dispute test.

However, either PUC or the Customer may request the service of Measurement Canada to resolve a dispute. If the Customer initiates the dispute and the meter is found to be accurate and Measurement Canada rules in favour of PUC, PUC will charge the Customer a 'Meter Dispute Test Agent Fee.'

2.4 Tariffs and Charges

Appendices A through *C* contained herein list the rates and charges that have been established for providing the Customer with electricity and service connections from the distribution system, as well as any services provided by PUC, as per the Market Rules and regulations.

2.4.0 Customer Rate Classifications

Customers are classified by the OEB on the basis of rates as follows:

- Residential Service,
- General Service less than 50 kW,
- General Service greater than 50 kW,
- Sentinel Lighting,
- Street Lighting.
- Unmetered Scattered Load

The following definitions have been established by the OEB through PUC's rate approval:

Residential

This classification applies to an account taking electricity at 750 volts or less where the electricity is used exclusively in a single-family unit, non-commercial. This can be a separately metered living accommodation, town house, apartment, semi-detached, duplex, triplex, or quadruplex with residential zoning.

General Service Less Than 50 kW

This classification applies to a non-residential account taking electricity at 750 volts or less whose average monthly peak demand is less than, or is forecast to be less than, 50 kW.

General Service 50 to 4,999 kW

This classification applies to a non-residential account whose average monthly peak demand used for billing purposes over the past 12 months is equal to or greater than or is forecast to be equal to or greater than, 50 kW but less than 5,000 kW.

Sentinel Lighting

This classification applies to safety/security lighting with a Residential or General Service customer. This is typically exterior lighting, and unmetered. Consumption is estimated based on the equipment rating and estimated hours of use.

Street Lighting

This classification applies to an account for roadway lighting with a Municipality, Regional Municipality, Ministry of Transportation, and private roadway lighting operation, controlled by photocells. The consumption for these Customers will be based on the calculated connected load times the required lighting times established in the approved OEB street lighting load shape template.

Unmetered Scattered Load

This classification applies to an account taking electricity at 750 volts or less whose average monthly peak demand is less than, or is forecast to be less than, 50 kW and the consumption is unmetered. Such connections include cable TV power packs, bus shelters, telephone booths, traffic lights, railway

crossings, etc. The customer will provide detailed manufacturer information/ documentation with regard to electrical demand/consumption of the proposed unmetered load.

2.4.0.1 Service Connections

Appendix C - Electric Services Connection Charges summarizes the application of connection charges related to service connections to the distribution system, as determined by PUC. These connection charges will be reviewed annually and revised without notice in order to keep them current with costs. Connection charges apply in addition to capital contributions for expansions and/or extensions.

2.4.0.2 Basic Residential Connections

The DSC requires that, for residential Customers, a Distributor must define a basic connection and recover the cost of the basic connection as part of its revenue requirement. The basic connection for each residential customer must include, at a minimum:

(a) supply and installation of overhead distribution transformation capacity or an equivalent credit for transformation equipment; and

(b) up to 30 meters of overhead conductor or an equivalent credit for underground services.

PUC has established that its basic connection shall provide for 200 A overhead secondary service to residential Customers. PUC will supply and install adequate overhead transformation to provide 200 A service to any residential customer along with a maximum length of 30 meters of overhead conductors on the Customer's property at no cost to the Customer.

2.4.0.3 Basic Underground Connection

PUC has established a Basic Underground Connection that is intended for **residential** Customers only. This includes the supply and installation of underground service wire and adequate transformation to supply a 200 A service. The Basic Underground Connection includes credit for the dollar value of the basic overhead connection.

2.4.0.4 Basic General Service Connection

The DSC provides that, for non-residential Customers, a distributor may define a basic connection by rate class and recover the cost of connection either as part of its revenue requirement, or through a basic connection charge to the customer.

In addition, all customer classes 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. A distributor may recover this amount from a customer through a connection charge or equivalent payment.

PUC has determined that a Basic General Service Connection shall be provided for non-residential Customers that is recovered through rates **only** for General Service <50 kW rate class Customers.

PUC will supply and install adequate overhead transformation less than 50 kW, single phase, to any non-residential customer along with a maximum length of 30 meters of overhead conductors on the Customer's property at no cost to the Customer.

For underground connections to General Service <50 kW Customers, the computed value of the basic overhead connection shall be applied towards the PUC costs to complete the underground connection. Where this value exceeds the actual PUC cost, a net payment to the Customer will **not** be made.

Costs for all other non-residential connections shall be recovered through the Variable Connection Charge only.

2.4.0.5 Basic Connection Allowance

PUC has established the dollar value of its basic overhead connection. This value is defined as the Basic Connection Allowance (BCA) which is reviewed annually and revised accordingly.

The BCA is applied towards the cost of any overhead connections up to 200A maximum, only for Residential or General Service <50 kW rate class Customers. The Customer is required to pay any additional costs beyond this amount.

Where a residential service is upgraded to the basic connection, the BCA will be applied towards PUC costs related to the upgrade.

2.4.1 Energy Supply

2.4.1.1 Standard Supply Service

All existing PUC Customers are Standard Supply Service Customers until PUC is informed of their switch to a competitive electricity supplier. A Service Transfer Request (STR) must be made by the Customer or the Customer's authorized Retailer.

2.4.1.2 Retailer Supply

Customers transferring from Standard Supply Service to a Retailer shall comply with the Service Transfer Request (STR) requirements as outlined in sections 10.5 through 10.5.6 of the Retail Settlement Code.

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

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

2.4.1.3 Wheeling of Energy

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

2.4.2 Security Deposit Requirements

Deposit requirements will conform to the DSC.

PUC requires security deposits, in a form acceptable to PUC, as a precaution to protect PUC and its Customers against potential losses from non-payment of accounts. Security deposits will be required for accounts which are billed under Standard Supply Service, Split Billing or Distributor Consolidated Billing. Service may be refused or discontinued if the required deposit is not paid.

Deposits will vary between Customers due to a variety of factors, including weather conditions, living or business accommodations, lifestyle or business activities, and heating requirements.

Where the Customer has an established usage history, the amount of the deposit will be based on that history. Where there is no history, the amount will be based on the service size, as detailed in *Appendix D – Security Deposits*, contained herein.

The requirement to provide a deposit may be waived for permanent supply of electrical energy if certain conditions are met, as detailed below. Customers that have been exempted from paying a deposit and are deemed to have an unsatisfactory payment record or have become a credit risk may be required to provide a deposit.

The customer will be provided with the specific reasons for requiring a security deposit.

Subject to the DSC, the PUC may use any risk mitigation options available under the law to manage customer non-payment risk.

2.4.2.1 Amount of Deposit

The maximum amount of a security deposit, where a customer is billed monthly, shall be 2.5 times the estimated bill based on the customer's average monthly load during the most recent twelve (12) consecutive months within the past two years.

Where relevant usage information is not available for the customer for twelve (12) consecutive months within the past two years the customer's average monthly load shall be based on a reasonable estimate made by PUC.

2.4.2.2 Deposit Waived for Customers

The deposit requirement for Customers shall be waived if the Customer:

- has a good payment history as set out in section 2.4.2.6; or
  - provides a letter from another distributor or gas distributor in Canada confirming a good payment history with that distributor for the most recent time period set out in section 2.4.2.6 where some of the time period which makes up the good payment history has occurred in the previous 24 months; or
  - is less than 5000 kW demand and provides a satisfactory credit check at the customer's expense; or
  - elects to enroll in an equal monthly billing plan or a pre-authorized payment plan; or
  - qualifies as a low-income customer through Community Assistance Trust (CAT) by filling out a low-income application and we receive appropriate approval.

A non-residential customer in a rate class other than less than 50 kW who has a credit rating from a recognized credit rating agency shall have the maximum amount of the security deposit reduced according to the following table (using Standard and Poor's Rating Terminology):

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

2.4.2.3 Form of Security Deposit

The security deposit for a customer can be paid at most financial institutions, by telephone banking or on-line banking, by Pre-Authorized Debit Plan (Equal Payment Plan or Exact Payment Plan), at payment 'drop-off' box (non-cash payments only) located at the General Office (500 Second Line East) ; by mail (non-cash payments only).

Non-residential customers also have the option of providing an automatically renewing irrevocable letter of credit as defined in the Bank Act, 1991 (c.46), letter of guarantee, bond, or other security issued by a financial institution or insurer. The form of security must be acceptable to PUC.

Residential Customers can pay a required security deposit, an increase in a security deposit or a replacement of a deposit applied against arrears, in equal installments over at least six (6) months. The customer may choose to pay the security deposit over a shorter period of time. Small general service customers have four (4) months to pay the deposit in equal instalments. The first monthly installment is billed to the customer on their first bill.

If the requirements for the security deposit are not met, service may be terminated.

2.4.2.4 Interest on Deposits

Interest shall accrue monthly commencing on receipt of the total deposit. The interest rate shall be at the Prime Business Rate as published on the Bank of Canada website less two (2) percent, updated quarterly. The interest accrued shall be paid out at least once every twelve (12) months or on return or application of the security deposit or closure of the account, whichever comes first, and may be paid by crediting the customer account.

2.4.2.5 Deposits Refunded

Security deposits will be reviewed each calendar year to determine whether the deposit is to be returned as the customer is in a position that would exempt it from paying a deposit based on a good payment history.

For Residential Service Customers, deposits, plus interest, will be credited to the account either when the account is finalized or one (1) calendar year after the first installment has been paid, provided the Customer has had a good payment history.

For General Service Customers, deposits, plus interest, will be refunded or credited to the account, either when the account is finalized, or three (3) years after for Customers with demand less than 50 kW and seven (7) years in any other rate class, provided the Customer has had a good payment history. PUC is only required to return 50% of the security deposit for Customers with a demand greater than 5,000 kW.

Deposits shall be returned within six (6) weeks of the closure of an account subject to the Distributor's right to use the security deposit to offset amounts owing by the customer to the Distributor in regard to their final bill.

Where a customer changes from Standard Service Supply to a competitive retailer that uses retailer-consolidated billing or from distributor consolidated billing to split billing or retailer consolidated billing the security deposit shall be applied to the final bill prior to the change in service. Where a change is made from distributor consolidated billing to split billing the distributor may retain a portion of the deposit that reflects the non-payment risk associated with the new billing option.

Where a customer is in arrears, and after all other attempts at contacting the customer for payment are unsuccessful, any paid portion of the deposit is first applied to the arrears. If the amount of the deposit

being applied is not sufficient, the disconnect process will commence and service will not be reconnected until full payment is received through most financial institutions; by telephone banking or on-line banking; by Pre-Authorized Debit Plan (Equal Payment Plan or Exact Payment Plan); at payment 'drop-off' box (non-cash payments only) located at the General Office (500 Second Line East); or by mail (non-cash payments only). Where a security deposit has been offset against amounts owing, PUC may request that the customer repay the amount of security deposit that was applied.

2.4.2.6 Good Payment History

The relevant time period that makes up the good payment history is one (1) year for residential Customers, three (3) years for general services Customers with demand less than 50 kW and seven (7) years for all other rate classes. The relevant time period must be the most recent period of time and some of the time period must have occurred in the previous twenty-four (24) months.

A customer is deemed to have a good payment history unless, during the relevant time period, the following criteria have occurred;

- The customer has received more than one disconnection notice,
- More than one cheque has been returned for insufficient funds,
- More than one pre-authorized payment has been returned for insufficient funds or,
- A disconnect/collect trip has occurred.

If any of the preceding events occur due to an error by the PUC, the customer's good payment history shall not be affected.

2.4.3 Billing

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

2.4.3.1 Pro-ration of Accounts

Accounts shall be prorated where the initial bill or final bill to a Customer is for a period shorter or longer that the normal bill period or where the rates have been revised effective on a date not coincident with the Customer's billing date.

Service and demand charges will be prorated based on a straight ratio calculation of the number of days in the actual billing period to the number of days in the standard 30-day month.

2.4.3.2 Billing Errors

2.4.3.3 Over Billed

Where a billing error, from any cause, has resulted in a Consumer or Retailer being over billed, and where Measurement Canada has not become involved in the dispute, PUC shall credit the Consumer or Retailer with the amount erroneously billed.

The credit PUC remits to the appropriate parties shall be the amount erroneously billed for up to a two-year period.

2.4.3.4 Under Billed

Where a billing error, from any cause, has resulted in a Consumer or Retailer being under billed, and where Measurement Canada has not become involved in the dispute, PUC shall charge the Consumer or Retailer with the amount that was not previously billed.

In the case of an individual Residential Consumer who is not responsible for the error, the allowable billing period of time shall not exceed two years and for Non-Residential Consumers or for instances of willful damage, the relevant time period is the duration of the defect, up to two years.

The entity billing a Consumer, whether PUC or a Retailer, is responsible for advising the Consumer of any meter error and its magnitude and of his or her rights and obligations under the Electricity and Gas Inspection Act (Canada).

2.4.3.5 Estimating Bills

Reasonable attempts will be made to obtain a meter reading for all regular electricity bills. Bills will only be estimated when PUC has been unsuccessful in obtaining a meter reading. Estimated bills for electric energy used will be based on the Customer's consumption history, whenever possible.

Demand will only be estimated after current practices for retrieving a reading have been exhausted. When a demand reading cannot be obtained, the demand will be estimated by reviewing the demand history for consistency and selecting an appropriate demand reading to use. This does not apply to interval metering.

2.4.4 Payments and Late Payment Charges

2.4.4.1 Settlement of Accounts

All accounts for electrical energy used by the Customer are due when rendered.

Bills are payable in full up to and including the due date which shall normally be a minimum of twenty calendar days from the issuance of the bill.

Accounts may be paid at most financial institutions; by telephone banking or on-line banking; by Pre-Authorized Debit Plan (Equal Payment Plan or Exact Payment Plan); at payment 'drop-off' box (non-cash payments only) located at the General Office (500 Second Line East); or by mail (non-cash payments only).

Accounts receivable by PUC covering miscellaneous bills for items other than electricity are due and payable 30 days after invoicing. Thereafter, interest is charged monthly.

2.4.4.2 Pre-Authorized Debit Plans (PAD Plans)

There are two Pre-Authorized Debit Plans - Equal Payment Plan and Exact Payment Plan.

The following guidelines apply to either PAD program:

- A Customer's account must be paid in full prior to starting on the PAD program and they cannot have more than two (2) NSF cheques in the last twelve months.
- A Customer can be removed from the PAD plan at the discretion of PUC.

2.4.4.3 PAD Equal Payment Plan

Twelve (12) equal payments are automatically withdrawn from the Customer's bank account based on the prior year consumption.

At the end of each payment term, credits on a Customer's account are refunded to their bank account and balances outstanding rolled into the calculation for the new payment term.

Customers have the choice of four withdrawal dates in a month - 4th, 11th, 18th, 25th or Due Date of their monthly bill.

2.4.4.4 PAD Exact Payment Plan

The exact amount due on the Customer's bill is automatically withdrawn from the Customer's bank account on the due date printed on the bill.

2.4.4.5 Late Payment Charges

All bills are subject to a late payment charge if paid after the due date. Failure to receive a bill does not exempt late payment charges as a bill may be obtained from PUC office.

Where the total amount billed has not been paid by the due date, the late payment charge shall apply but only to the amount of the bill outstanding at the due date. Partial payments will be applied to any outstanding arrears before being applied to the current billing.

2.5 Customer Information

The Retail Settlement Code - Sections 10 and 11 specify the rights of Customers and their Retailers to access current and historical usage and payment information and related data and the obligation of PUC in providing access to such information.

PUC shall upon written authorization by a Customer, make available the information specified in the Retail Settlement Code, to the Customer or the Retailer that provides electricity to a Customer connected to PUC's distribution system.

Provision of consumer specific information to retailers and Customers through the EBT system shall be done at no charge to the Customer. Requests to deliver data to Retailers and Customers not delivered through the EBT system shall be honoured twice a year at no charge and PUC may charge a fee for any 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.

At the Customer's request, PUC will provide a list of Retailers who have Service Agreements in effect with PUC.

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

SECTION 3 CUSTOMER CLASS SPECIFIC

PUC will communicate general market and educational information to Customers connected to its distribution system as required.

3.0 Common Conditions

3.0.1 Connection Categories/Types and Demarcation Points

Appendix B - Demarcation Points and Connection Charges identifies service connection categories and their associated connection types that are provided by PUC.

Operational and Ownership Demarcation Points apply as detailed in *Appendix B - Demarcation Points and Connection Charges* for all service connections, unless specifically indicated otherwise in writing by PUC.

It should be noted that any particular connection category will not necessarily correspond to the associated Customer Class. For example, a multi-unit apartment building with individually metered dwelling units may be connected as a general service >50 kW connection but the individual tenants will be billed at Residential Class rates while the common area meter will be billed at General Service <50 kW Class rates.

Where electrical facilities to be installed on private property are to be shared by more than one party, the parties must enter into an agreement and provide a copy of the signed agreement to PUC prior to connection.

3.0.2 Road Crossings

Where the nearest existing distribution pole is located across the street from the Customer, PUC may install, at no expense to the Customer, a road-crossing pole and overhead wire. In general, PUC will provide, at no cost to the Customer and at a location determined by PUC, an overhead point of supply on the same side of the street as the Customer.

If a Customer requests an underground road crossing, the Customer will pay the actual costs of the underground road crossing less the estimated equivalent cost of an overhead crossing and pole.

In circumstances where an underground road crossing is impractical due to existing field conditions or is not permitted by the municipality, PUC will deny the underground road crossing request, and will install a road-crossing pole and overhead wire.

3.0.3 Primary Service

Where primary service is required, the Customer will be responsible for all costs to construct a private pole line or underground duct bank structures, as the case may be.

Where the Customer takes service overhead, PUC 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 PUC and shall be within 30 metres of PUC's existing overhead plant. All costs for materials and labour shall be at the Customer's expense.

Where the Customer takes service underground, the Customer shall supply and install all underground structural works to the Delivery Point specified by PUC and as outlined in other sections herein. Primary underground conductors will be supplied and terminated by PUC at the Owner's expense.

The Customer shall submit two copies of drawings to PUC for approval before commencement of any work indicating the following:

- location of the proposed line on a scaled site plan, including public rights-of-way, lot lines and adjacent obstructions such as fences, buildings, trees, or other equipment;
- voltage rating of the proposed line;
- pole heights and specifications;
- guying arrangements;
- underground duct or structure details;
- clearances between conductors;
- conductor sizes and material list;
- location of transformers;
- fusing specifications.

3.0.3.1 Overhead Primary Service

In addition to Ontario Electrical Safety Code specifications, the following PUC general requirements also apply:

- pole lines shall be dead-ended and guyed at each end within the Owner's property so as to be independent from PUC's supply lines to PUC satisfaction;
- the first pole in the line shall be of minimum height and class as specified by PUC;
- the first pole shall be within 10 m of the PUC's Delivery Point and shall be located such that conductors from the PUC pole do not cross over adjacent lands;
- lines shall be constructed so as not to encumber neighbouring lands. In most cases this means a minimum horizontal clearance of 3 m must be provided between any lot line and the nearest high voltage phase conductor. Clearance requirements may be greater depending on the circumstances.

3.0.3.2 Underground Primary Cables

In general, where the Customer takes service via underground primary cables, such cables and terminations shall be supplied, installed, and maintained by PUC in the Customer's duct bank at cost to the Customer but shall remain the property of PUC. PUC warranties workmanship and materials for a maximum of five years from the date of installation, after which the Customer shall be responsible for the cost of replacing primary cables when required.

Customer installed or repaired cables will be the customer's responsibility to own and maintain at their cost.
Where feasible, underground cables supplying a Customer shall be fused at the Ownership Demarcation Point, at cost to the Customer.

3.0.4 Supply of Electrical Equipment

In general, for all connection types, connection assets will be provided as follows, subject to the terms and conditions outlined within these Conditions.

PUC shall supply, install, and maintain:

- oil filled distribution transformers;

- overcurrent protection devices;
- meters and metering transformers (instrument transformers).

The Owner shall supply, install, and maintain:

- transformer foundations or vaults, as required, and all associated equipment;
- meter bases, metering cabinets, or metering compartments;
- concrete encased ducts to PUC's specifications, where the primary supply is underground;
- dry-type transformers for special utilization voltages for internal building distribution.

Additional requirements may apply depending on the specific nature of the connection.

3.0.5 Service Entrance and Meter Location Changes

The Customer must consult with PUC for advice in situations involving changes in the metering facilities and/or location prior to initiating any such work.

An upgrade to the Basic Residential Connection will be provided without charge to residential Customers.

Where a service upgrade to the BRC involves changing the utility service cables from an overhead supply to an underground supply, the Customer will, as a minimum, be required to provide a trench from the meter base to the property-line (to the satisfaction of PUC). PUC will apply the BCA towards the labour, materials and equipment costs incurred. The Customer will be responsible for the balance of the costs.

Where a service change involves converting the utility service cables from an overhead supply to an underground supply, the Customer will, as a minimum, be required to provide a trench from the meter base to the property-line (to the satisfaction of PUC) and cover all PUC labour, materials and equipment costs incurred in order to complete the installation.

3.0.6 Maintenance of Facilities

Appendix B - Demarcation Points and Connection Charges herein defines the ownership demarcation points for all available connection types. In general, the Customer is fully responsible to install and maintain all facilities on their side of the Ownership Demarcation Point.

For Customer owned cables, Customers may choose to have PUC maintain or replace the cables which will be done at cost to the Customer. Otherwise, PUC will disconnect the cables to allow the Customer to hire a qualified contractor to perform the work.

Maintenance or replacement of all underground looped cables, which form part of PUC's circuits, shall be performed by PUC at PUC expense, unless specifically documented otherwise to the Customer by PUC. Where damage can be shown to be the Customer's responsibility, maintenance and repair are the Customer's expense.

In all cases, all civil structures on private property required to accommodate PUC's conductors and equipment such as concrete duct banks, transformer pads and vaults, etc. are the responsibility of the Customer to maintain, repair or replace as need be.

3.0.7 Service Removal

Where PUC is requested to remove a primary radial service, the Customer shall pay the cost.

Looped primary services shall not be removed unless approved by PUC.

Removal of any service, primary or secondary, is contingent upon PUC receiving a written request to do so by the Owner of the property being served, and upon payment of any charges due. All items previously paid for by the Customer shall remain on site unless otherwise requested in writing.

3.0.8 Upgrading of Distribution Facilities

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

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

3.1 Residential Service

3.1.1 General Comments

This section refers to the connection of residential Customers in single-family detached, semi-detached, duplex, or triplex dwelling units, and townhouses or row houses, as defined in the local zoning by-law. This may also include a home-based business which exists within one of the aforementioned dwelling units.

Service is normally supplied single-phase, 3-wire, 120/240 Volts, up to maximum 400 Amperes per dwelling unit.

There shall normally be only one Delivery Point and one service line to a dwelling.

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

Where PUC is required to provide property restoration of private lands following any repairs or maintenance to a service, PUC will make reasonable efforts to restore the affected areas to existing conditions, unless the damage can be shown to be the Customer's responsibility, in which case all costs shall be borne by the Customer.

Except for paid Subdivisions, it is the Customer's responsibility to provide and install the trench and 75 mm rigid PVC conduit, to PUC's satisfaction. Also, the Owner or their contractor must obtain clearances from all of the utility companies (including PUC) before starting any excavation.

3.1.2 Early Consultation

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

a) required service date;

b) requested service entrance capacity and voltage rating of the service entrance equipment;

c) locations of other utility services: gas, telephone, water, and cable TV;

d) details respecting heating equipment, air conditioners and any appliances that demand a high consumption of electrical energy;

e) survey plan and site plan indicating the proposed location of the service entrance equipment with respect to public rights-of-way and lot lines.

3.1.3 Demarcation Points

For residential services, both the Operational and Ownership Demarcation Points are usually the same, beyond which the Customer bears full responsibility for installation and maintenance. See *Appendix B - Demarcation Points and Connection Charges* for specific details.

In all cases, final determination of the demarcation point(s) will be established by PUC.

3.2 General Service - Below 50 kW

3.2.1 General Comments

This section provides additional details not covered elsewhere in these Conditions related to the supply of electrical energy to General Service Customers such as commercial buildings and developments.

Commercial buildings, for connection purposes, are defined as buildings that are used for purposes of mixed occupancy (i.e., residential, and non-residential use), buildings that are used for other than residential occupancy, or buildings that are multi-unit residential occupancy greater than three units. See *Appendix C - Electric Services Connection Charges* for details related to connection categories and types and associated charges.

3.2.2 Early Consultation

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

The Owner shall submit to PUC the following information:

- required service date;
- voltage requirement;
- estimated minimum monthly demand (kW);
- estimated yearly energy consumption (kWh);
- estimated initial maximum monthly demand (kW);
- estimated future maximum monthly demand (kW);
- single line electrical system schematic;
- specific listing of the type of loads for lighting, motors, heating equipment, air conditioning and any other equipment and appliances that demand high consumption of electrical energy;
- number of units and the areas of each that are to be separately metered;
- survey grading plan and site plan, to scale, showing the apartments, town homes, retail area or office building in relation to existing or proposed property lines and rights-of-way and other buildings or structures such as parking garages and loading ramps. The plans shall include vertical and horizontal views of any proposed incoming duct bank from the building to the Delivery Point;
- plan, to scale, of the area in which the transformer is to be located, showing all details of the foundation or vault, as the case may be;
- plan, to scale, showing the electrical room and provision for the metering equipment.

3.2.3 Demarcation Points

Demarcation points (Operational and Ownership) for a General Service vary with the nature of the service. See *Appendix C - Electric Services Connection Charges* for specific details.

The Customer must obtain a Meter Locate from PUC before proceeding with the installation of any service. Failure to do so may result in the meter base/service entrance having to be relocated at the Customer's expense.

3.2.4 Supply Voltage

Generally, new commercial buildings are supplied at one utilization voltage only.

The Owner shall make provision to take delivery at one of the voltages listed in Section 2.3.4, as specified by PUC. The Owner shall obtain prior approval from PUC for the use of any specific voltage at any specific location.

3.2.5 Underground Service

Under normal circumstances, commercial buildings are supplied electrical energy by an underground service through a single Delivery Point for each land parcel, at a location specified by PUC.

For low voltage supply, the Customer's cables shall be brought to a point determined by PUC for connection to PUC's supply.

For high voltage supply, the line terminals of the Customer's switching equipment shall be suitable for 2-hole NEMA pad connection.

A minimum vertical distance of 1.0 m is required between the point of cable entrance and terminator connection to the switch and each point of cable entrance shall be directly below its termination point. Other cable entry arrangements must be approved by PUC.

3.2.6 Overhead Service

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

3.2.7 Technical Information Requirements

Where project drawings are required for PUC approval, for items under PUC's jurisdiction, the Customer or their authorized representative must ensure that proposal drawings are in complete compliance with PUC's standards. Approval of project drawings by PUC shall not relieve the Customer of its responsibility in respect of full compliance with PUC's standards. In all cases, one copy of all relevant drawings must be submitted to PUC. Where the Customer requires a returned approved copy, two copies of all plans must be submitted.

Prior to committing to construction or purchase of equipment, the Customer must provide the following information to PUC.

- The approximate date when the service must be energized.
- Site & Grading Plans indicating the lot number, plan numbers and when applicable the street number. The site plan shall show the location of the building on the property relative to the

property lines, any driveways and parking areas. Elevations shall be shown for all structures and proposed installations.

- Site Servicing Plan showing the location on the property of all services proposed and/or existing such as water, gas, storm and sanitary sewers, telephone, etc.
- Floor Plan showing the locations of the electric service and any other services and indicating the total gross floor area of the building.
- Duct Bank Location showing the preferred routing of the underground duct bank on the property.
- Transformer Location indicating the preferred location on the property for the high voltage transformation.
- Electrical Room indicating the preferred location in the building of the meter room and the main switchboard.
- Single Line Diagram showing the main switch capacity, the required utilization voltage, the number and capacity of all sub-services, metering details, as well as the connected load breakdown for lighting, heating, ventilation, air conditioning etc. etc. Also, indicate the estimated initial kilowatt demand and ultimate maximum demands. Fusing must be adequately sized to co-ordinate with the transformer size provided.

3.3 General Service - Above 50 kW

This section expands on and is in addition to the requirements of Section 3.2 above and provides additional requirements not covered elsewhere in these Conditions related to the supply of electrical energy to Commercial/Industrial Customers requiring transformation capacity greater than 50 kW. Commercial developments such as residential subdivisions and townhouses are included herein with respect to the obligations of the developer.

3.3.1 Early Consultation

The Owner shall submit to PUC the following information:

- required service date;
- voltage requirement;
- estimated initial Maximum Demand;
- estimated future Maximum Demand;

3.3.2 Customer-Owned Transformers/Substations

PUC will normally supply and maintain adequate transformer capacity to satisfy the Customer's needs using PUC standard outdoor transformers.

In the event PUC is unable to meet unusual needs, the Customer shall supply, install, and maintain suitable transformers in accordance with CSA specifications C2 or C88, latest edition, conforming to PUC's requirements and subject to ESA approval. Without limiting PUC's requirements, these may include that the Customer's transformers be equipped with multiple high voltage windings, suitable for connection to either of two system voltages, in order to facilitate voltage conversions. PUC may also specify special tap settings to accommodate system voltage variations.

Customer-owned substations include transformer(s) and switchgear located outdoors or in a suitable room or enclosure owned and maintained by the Customer, and supplied at primary voltage, i.e., the Supply Voltage is greater than 750 volts.

When requested, the Customer shall make provision in the substation switchgear for loop feeding PUC's supply cables via group-operated load interrupter switches.

3.3.2.1 Plans and Specifications for Customer-Owned Substations

In addition to obtaining the approval of ESA for substation equipment, the Customer shall also obtain PUC approval of any components which may affect PUC's system, e.g., cables, lightning arresters, terminators, protective and switching devices etc. etc. The approval should be obtained well in advance of tender documents being issued or any equipment purchases.

PUC will review and approve the original and one corrected proposal for each new substation free of charge. Costs of any additional review will be charged to the Customer. When modifications are being made to an existing substation without a substantial load increase, all costs of PUC review and approval will be charged to the Customer.

To obtain approval the Customer shall submit to PUC two copies of detailed plans and specifications, certified by a registered Professional Engineer, showing the following:

(a) Single line schematic diagram indicating:
- all voltages of the proposed installation;
- transformer bank capacity, rating, reactance, and cooling details;
- protective and switching devices with short-circuit ratings.

(b) Working drawings and specifications for the substation installation including:
- a site plan of the station showing all equipment layout, proposed primary connections, grounding and fence details, where applicable;
- detailed dimensions, in plan and elevation views;
- working and live parts clearances;
- structures and guying for dead-ending incoming lines;
- material list;
- interlocking schemes.

(c) Survey plan and site plan indicating the location of the substation with respect to the public right-of-way.

(d) List of the lighting, motor, welding, heating, and other loads.

(e) Ampere and voltage rating of the main secondary service switch.

(f) Location and details of the metering equipment.

(g) a coordination study for protection review.

3.3.2.2 Pre-Service Inspection and Energization of Customer-Owned Substations

A certified pre-service inspection report shall be submitted by the Customer at his expense prior to energization. The inspection shall be completed by a contractor approved by PUC and to PUC's specifications. The report shall include the results of tests and checks as follows:

(a) transformer oil sample test;

(b) field observed lightning arrester data;

(c) primary disconnect operation check;

(d) transformer ratio test;

(e) high potential test of any primary cables not installed by PUC;

(f) field observed high voltage fuse test;

(g) “as-built” drawings of the installation.

Following receipt of the pre-service inspection report PUC will perform an on-site inspection and, if satisfactory, energize the substation. There will be no charge for these services if scheduled in advance during PUC’s normal working hours and providing it is the first inspection and energizing of a new or enlarged substation.

3.3.2.3 Operation of Primary Disconnect Devices on Customer-Owned Substations

Customers shall permit access by PUC at all times in order to operate primary disconnect devices on Customer-owned substations. Customers may require the operation of primary disconnect devices for purposes of routine maintenance or other reasons. PUC will do so upon receipt of a written commitment to pay its costs. A minimum of one week’s notice is required for planned operation of such devices.

PUC may require Customers to enter into a written agreement pertaining to the operation of specific primary disconnect devices. Under this agreement only specified devices may be operated by Customers. Under no other circumstances are Customers permitted to operate any primary disconnect devices.

3.3.2.4 Maintenance of Customer-Owned Substations

Customers are responsible for performing both regular and emergency maintenance on substations owned by them. Customers must be suitably prepared at all times to provide for their own availability of materials and labour to perform emergency repairs in the event of a sudden substation failure. PUC may provide advice regarding determination of the cause of failure and will disconnect the supply in order to facilitate repairs but will not perform repairs on Customer-owned substations.

3.3.3 Electrical Room Requirements

Where the Owner is required to supply and maintain an electrical room it shall be of sufficient size to accommodate the service entrance and meter requirements of the tenant(s) and provide clear working space in accordance with the Electrical Safety Code, as well as room for future service increases.

The electrical room must be separate from, but adjacent to, the transformer vault. It must be located to provide safe access from the outside or main hallway and not from an adjoining room, so that it is readily accessible to PUC employees and its authorized Agent(s) at all hours to permit meter reading and to maintain electric supply. It shall not be used for storage or contain equipment foreign to the electrical installation within the area designated as a safe working space. All stairways leading to electrical rooms above or below grade shall have a handrail on at least one side as per Building Code requirements and shall be located indoors. Either a dual locking arrangement or a key box arrangement will be required on the access door.

Adequate lighting and a 120-volt convenience outlet shall also be provided.

Refer to Section 2.3.7 Metering, for additional Electrical Room Requirements.

3.3.4 Transformer Vaults

This section refers to the requirements of Customer-owned, above-grade transformer vaults in which PUC installs and maintains its transformation equipment.

All vaults shall be constructed in accordance with the applicable codes, and as herein specified. Vaults shall be at grade level, preferably in a corner of the building, with two outside walls. The grade level requirement shall be with respect to the location of the door and to achieve continual natural drainage away from both the interior and immediate exterior of the vault. All vault dimensions and clearances must be approved by PUC prior to the commencement of construction.

The Owner must submit details of the following to PUC for approval well in advance of committing to any installation or equipment purchase:

- incoming primary concrete-encased ducts complete with reinforcing and pull ropes;
- grounding system in accordance with the Electrical Safety Code;
- cable trench at the primary entrance to the vault complete with drain and cover;
- cable pulling eyes;
- floor drain with screen, trap and reverse check valve including adequate floor slope towards drain;
- metal clad vault door located on an outside wall with direct access from grade level and provision for locking with PUC's standard padlock utilizing hardware that is not removable from the outside. No other means of locking shall be permitted. The door shall not have any ventilation openings and must include an elevated concrete sill with an external permanent sign stating: "Danger - High Voltage;"
- smoke detector in a location approved by PUC with annunciation external to the vault. Sprinklers and other fire extinguishing systems are not permitted;
- adequate lighting and a 120-volt convenience outlet.

3.3.4.1 Access to Vaults

The Customer shall allow authorized PUC employees access to the transformer vault at all times and shall prevent unauthorized persons from entering.

It is necessary that PUC vehicles be allowed access to the door of the vault without causing property damage. The Owner shall provide an unobstructed paved or graveled surface for this purpose, of sufficient strength as specified by PUC. Alternatively, the Owner shall take responsibility for any necessary property repair following vehicular access.

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

3.3.4.2 Secondary Conductors

The Owner shall supply, install, and maintain all secondary cables, cable trays and associated equipment within the vault, subject to layout approval by PUC. The Owner shall apply for written approval well in advance of design and installation.

3.3.4.3 Maintenance and Costs

PUC will carry out or co-ordinate maintenance on its transformer(s) inside the vault.

Repairs to the Owner's equipment will be at the Owner's expense. The Owner or its Agent is not permitted to carry out maintenance inside an energized vault.

3.3.5 Customer's Physical Structures

Construction and maintenance of all civil works on private property including such items as transformer foundations, transformer rooms, transformer vaults, cable chambers, and underground conduit are the responsibility of the Customer. All civil work on private property is subject to inspection and approval by PUC and ESA.

The Customer is responsible for maintaining all the structural and mechanical facilities located on private property in a safe condition.

3.3.6 General Service - Above 300 kW

This section expands on and is in addition to the requirements of Section 3.2 and 3.3 above and provides additional details not covered elsewhere in these Conditions related to the supply of electricity to Commercial/Industrial Customers requiring a transformation capacity greater than 300 kW.

3.3.6.1 Group-Operated Switch

Generally, services requiring 500 kVA padmounted transformers or larger will require a group-operated switch.

The group operated switch will be supplied within the padmount transformer where feasible. Otherwise, the group-operated switch will be supplied and installed by PUC at cost to the Customer. The Customer must provide the facilities to accommodate the switch.

Alternatively, at PUC's sole discretion, the switch may be installed on PUC plant within the municipal road allowance.

3.3.6.2 Early Consultation

The Owner must consult with PUC in the early planning stages to confirm PUC requirements as more information than what is requested below may be required.

The Customer shall provide PUC with:

- required service date;
- the number, rating, primary and secondary voltages of any customer owned transformer(s);
- the estimated initial connected load and demand in kW;
- the estimated future connected load and demand in kW;
- two complete sets of substation and relevant drawings as detailed below in section '3.3.9.2 - Drawings'. All drawings for high voltage equipment submitted to PUC for approval must be certified by a professional engineer in order to be considered;
- easement(s), if required.

PUC will:

- advise the Customer of the suitability of the service date;
- arrange for a Service Contract with the Customer;
- review the submitted drawings and return one set to the Customer with comments and/or approval. If requested by PUC, the Customer shall re-submit the drawings where the comments are extensive and require major changes;
- specify the required high voltage main fuse link or relay setting for co-ordination with the system. In the 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.

3.3.6.3 Drawings

Apart from the regular drawings' submission to ESA, the Customer shall provide two sets of the following drawings and details to PUC:

- 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 setbacks from adjacent property line. The site plan shall also include the exact location of the existing PUC-owned plant and the proposed route of the incoming supply. Site plan must be updated and sent to PUC as an As-Constructed drawing for PUC to accurately service the Customer.
- 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 should 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 PUC lines shall be complete with suitable hardware for attaching the suspension insulators that will be supplied and installed by PUC.
    - fencing arrangement;
    - grounding details. In the case of indoor metal enclosed switchgear, when PUC has operating control of any interrupter switches, the assembly shall further incorporate ground rod parking stands and stirrups;
    - 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 PUC cables terminate in the switchgear, the Customer shall provide suitable terminators for the size and type of cable as specified by PUC;
    - Bill of Material properly referenced to the drawings;
    - when the Customer’s switchgear is used for loop feeding PUC’s 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;
    - the Customer shall make provisions for a future system neutral connection to the Customer’s dead-ending pole or structures installed by PUC. Where PUC 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 PUC.

3.4 Land Developments

This section identifies PUC requirements related to the commercial development of private lands for the purposes of creating residential subdivisions, townhouses, or condominiums.

3.4.1 Subdivision Developments

3.4.1.1 General

The Developer may choose to build, all or parts of, the electrical distribution facilities for the development. However, PUC shall perform the design of the system.

Alternatively, the Developer may request that PUC design and construct the electrical servicing.

In either case, all of the electrical servicing shall be constructed to PUC standards, the Electrical Safety Code, and all applicable laws, regulations, and codes.

The Developer must consult with PUC in the early planning stages to ascertain those requirements.

3.4.1.2 Early Consultation

The Developer shall submit the following information. All plans and drawings required shall be provided as two paper copies plus one electronic copy in AutoCAD format.

- plan of subdivision;
- detailed engineering plans (including all proposed driveway and walkway locations) approved by the Municipality);
- schedule of electric power requirements at defined phases or stages of development;
- type of heating and air-conditioning for each dwelling unit;
- service requirements for all other types of buildings or recreational facilities that may be constructed in addition to the residential dwellings.
- estimated minimum monthly demand (kW);
- estimated yearly energy consumption (kWh).

3.4.1.3 Subdivision Agreements

The Developer is required to enter into a standard Subdivision Agreement with PUC, specific to the type of development. Payment of all applicable financial requirements necessary for the installation of an electrical distribution system will be required prior to finalizing the Agreement.

Expansions to PUC's distribution system necessary to connect and service subdivisions will be provided in accordance with PUC's Capital Contribution Policy, as outlined in Section 2.1.2.1. above.

PUC's standard subdivision agreements are available for review upon request.

3.4.1.4 Distribution System and Services Characteristics

Electrical distribution on the street shall be underground for urban developments. In rural areas, the Developer has the option of overhead distribution, provided the lot frontages exceed 150 metres.

Supply for all services, other than apartment or commercial buildings, will be 120/240 Volts, single-phase, 3-wire, 200 Amperes rating. In the event any of the lands are built or developed for other than single family detached or semi-detached dwellings, or the service entrance of any building exceeds 200 Amperes rating, the type of service required must be clarified with PUC and the Developer shall pay all additional costs assessed for each service.

3.4.1.5 Underground Service Lines

For residential subdivisions, all house or building service lines shall be underground at the Developer's expense, regardless of the type of Distribution System used.

3.4.2 Townhouses and Condominiums

Street townhouses are usually a free-hold property where the land is owned by the individual Owners of each unit, fronting onto a Municipal street.

A 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.

Condominiums are located on common land which is the property of a condominium corporation, or which is owned jointly by each condominium owner. These units usually front onto internal roads that are privately owned by the condominium corporation.

3.4.2.1 Service Information

The condominium developer will enter into a servicing agreement with PUC, governing the terms and conditions under which the electrical distribution system and services will be designed and installed.

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

The distribution system and services shall be underground.

PUC will establish the location of duct banks, service routings and meter bases.

3.4.2.2 Early Consultation

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

- required service date;
- requested service entrance capacity and voltage rating of the service entrance equipment;
- locations of other utility services: gas, telephone, water, and cable TV;
- details respecting heating equipment, air conditioners and any appliances that demand a high consumption of electrical energy;
- survey plan and site plan, to scale, showing the buildings in relation to existing or proposed property lines and rights-of-way and other buildings or structures such as parking garages and loading ramps. The plans shall include vertical and horizontal views of the proposed incoming duct bank from the Point of Entry to the Delivery Point.

3.5 Embedded Generation

The Customer shall comply with the detailed requirements outlined in the DSC as well as PUC requirements listed below.

PUC shall make every reasonable effort to respond promptly to a Customer's request for connection of its Embedded Generation Facility (Generator). In any event PUC shall arrange an initial consultation with a Generator that wishes to connect to PUC's distribution system regarding the connection process within thirty calendar days of receiving a written request for connection. A final offer to connect a Generator to its distribution system shall be made within ninety calendar days of receiving a written request for

connection, unless other necessary information outside PUC's control is required before the offer can be made.

A Customer wishing to connect a Generator to PUC's distribution system shall enter into a Connection Agreement in a form acceptable to PUC prior to connection.

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

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

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

The Customers shall disconnect the Generator from PUC's distribution system when:

- a remote trip or transfer trip is included in the interface protection, and
- the Customer effects changes in the normal feeder arrangements other than those agreed upon in the operating agreement between PUC and the Customer.

3.5.1 Micro-Embedded Generator (≤10kW)

Customers wishing to install micro-embedded generators shall conform to the requirements of the DSC. In addition, the following PUC requirements will apply:

- Disconnecting Device

  Subject to ESA and PUC approval, a lockable, outdoor rated, visible break, disconnecting device shall be installed on the exterior of the house adjacent to the existing or proposed electric meter base. One such approved device is a Cutler-Hammer product, catalogue No. 3GAC222NF.

- Metering

  The standard single-phase meter typically supplied by PUC in residential applications is not approved by Industry Canada for bi-directional revenue metering. Therefore, PUC will provide and install an approved meter at cost to the owner. The owner will be required to provide a deposit for the full amount prior to ordering the meter. The deposit will be applied towards the actual installed cost when billed. Credit will be provided for the deferred cost of a standard meter.

- Billing Settlement

  Monthly Service Charge and Distribution Charges will apply regardless of net consumption. No payment will be made for any excess generation that results in a net delivery of energy to the grid between meter reads.

- Connection Agreement

  The owner shall enter into a contract with PUC before the proposed installation is connected to the grid. The installation will be subject to the appropriate inspection approvals by ESA.

3.6 Embedded Market Participant

An Embedded Market Participant shall provide PUC with proof of compliance of IESO-registration Requirements and appropriate Licences.

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

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

3.7 Embedded Distributor

An Embedded Distributor shall provide PUC with proof of compliance with IESO-registration Requirements and appropriate Licences.

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

The Embedded Distributor must meet at a minimum the standards set out in these Conditions in order to connect to PUC's distribution facilities.

3.8 Unmetered Connections

A Customer, at the sole discretion of PUC, may arrange for an unmetered service to fixed loads such as telephone booths, traffic signals, cable TV amplifiers, municipal street lighting, sentinel lights and traffic lights.

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

- required service date;
- requested service entrance capacity and voltage rating of the service entrance equipment;
- loading calculations and duty cycle data;
- locations of other utility services: gas, telephone, water, and cable.
- survey plan and site plan indicating the proposed location of the service entrance equipment with respect to public rights-of-way and lot lines.

Prior to energizing the service, PUC will require notification from ESA that the installation has been inspected and approved for connection.

3.8.1 Street Lighting

Street lighting shall adhere to the requirements of the Ontario Electrical Safety Code.

The method and location of supply will vary based on the conditions present on PUC's plant and will be established for each application by PUC.

Energy consumption will be based on the calculated connected load multiplied by the lighting intervals established in the approved OEB street lighting load shape template.

3.8.2 Traffic Signals

Traffic signals and crosswalks are devices owned and maintained by the Municipality.

The method and location of supply will vary and will be established for each application through consultation with PUC. The Owner shall be responsible for all costs associated with the supply and installation of service conductors.

Energy consumption will be based on the connected wattage and the calculated hours of use based on the controller programming.

3.8.3 Bus Shelters

The service location and method of supply will be established through consultation with PUC for each application. The Owner shall be responsible for all costs associated with the supply and installation of service conductors.

Energy consumption will be based on the connected wattage and number of hours utilized per day.

3.8.4 Other Small Services

The method and location of supply for such loads as telephone booths, cable-TV amplifiers and similar small unmetered loads will vary and will be established for each application through consultation with PUC. The Owner shall be responsible for all costs associated with the supply and installation of service conductors.

Normally PUC will supply transformation at no cost to the Owner, except for particular cases where PUC may deem it necessary to charge for the labour and other associated work required to provide transformation.

Energy consumption will be based on the connected wattage and the calculated hours of use.

3.9 Miscellaneous Small Metered Loads

3.9.1 Illuminated Billboards and Similar Installations

The nominal service voltage will be at the discretion of PUC, but will normally be 120/240 Volts, single-phase, three-wire. The method and location of supply will vary and will be established for each application through consultation with PUC. In all cases the service must be metered.

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

Normally PUC will supply transformation at no cost to the Owner, except for particular cases where PUC may deem it necessary to charge for the labour and other associated work required to provide transformation.

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

3.9.2 Seasonal and Theme Lighting

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

The service will be metered. The Customer shall provide a photocell or time clock control arranged to energize the load for night illumination only.

Generally, service will be provided underground. The Owner will provide underground ducts and facilities to PUC's requirements as specified in these Conditions.

3.10 Temporary Service

Temporary services may be provided for construction purposes or special events. The Customer must provide a deposit prior to installation to cover the full estimated cost of installation and removal of all equipment necessary to provide the service. The deposit will be applied towards the final billing for actual costs incurred.

Temporary services must be metered.

SECTION 4 GLOSSARY OF TERMS

Sources for Definitions:

- **A** Electricity Act, 1998, Schedule A, Section 2, Definitions
- **MR** Market Rules for the Ontario Electricity Market, Chapter 11, Definitions
- **DL** Distributor Licence, Part I, Definitions
- **DSC** Distribution System Code Definitions
- **RSC** Retail Settlement Code Definitions

Affiliate Relationships Code - means the code, approved by the Ontario Energy Board and in effect at the relevant time, which, among other things, establishes the standards and conditions for the interaction between electricity distributors or transmitters and their respective affiliated companies. (DL, DCS)

Ancillary Services - means services necessary to maintain the reliability of the IESO-controlled grid: including frequency control, voltage control, reactive power, and operating reserve services. (DSC)

Apartment Building - means a structure containing four or more dwelling units having access from an interior corridor system or common entrance.

Application for Service - means the agreement or contract between PUC and the Customer for which electrical service is requested.

Board or OEB - means the Ontario Energy Board. (A, DSC)

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

Business day – means any day other than a Saturday, Sunday or a holiday as defined by section 88 of the Legislation Act, 2006.

Conditions of Service - means the document developed by the distributor in accordance with subsection 2.4 of the Distribution System Code that describes the operating practices and connection rules for the distributor. (DSC)

Connected Load - means the total kilowatt rating of all the electrical equipment on the Customer's premises that is connected to the main service.

Connection - means the process of installing and activating connection assets in order to distribute electricity. (DSC)

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

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

Consumer - means a person who uses, for their person's own consumption, electricity that the person did not generate. (DSC)

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

Delivery Point - means the point in its distribution system at which the distributor delivers electricity to the Customer.

Demand - means the rate at which electric energy is delivered to or by a system or part of a system, generally expressed in kilowatts or megawatts, at a given instant or averaged over any designated interval of time. (ML)

Demand Meter - means a meter that measures a consumer's peak usage during a specified period of time. (DSC)

Developer - means the person(s) or corporation(s) owning property for which new or modified electrical services are to be installed.

Disconnection - means a deactivation of connection assets that results in cessation of distribution services to a Consumer. (DSC)

Distribute - with respect to electricity, means to convey electricity at voltages of 50 kilovolts or less. (DSC)

Distribution Losses - means energy losses that result from the interaction of intrinsic characteristics of the distribution network such as electrical resistance with network voltages and current flows. (DSC)

Distribution Loss Factor - has the meaning described to it in the Retail Settlement Code. (DSC)

Distribution Services - means services related to the distribution of electricity and the services the Board has required distributors to carry out. (DL, DSC)

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

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. (DSC)

Distributor - means a person who owns or operates a distribution system. (DSC)

Duct Bank – means one or more ducts that may be encased in concrete used for the purpose of containing and protecting underground electric cables.

Electricity Act - means the Electricity Act, 1998, S.O. 1998, c.15, Schedule A. (DL, DSC)

Electrical Safety Authority or ESA – means the person or body designated under the Electricity Act regulations as the Electrical Safety Authority. (DSC)

Electric Service - means the supply of electricity from PUC to the Customer.

Embedded Distributor - means a distributor that is provided electricity by a host distributor. (DSC)

Embedded Generation Facility - means a generator whose generation facility is not directly connected to the IESO-controlled grid but instead is connected to a distribution system. (DSC)

Embedded Market Participant (or Embedded Wholesale Consumer) - 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. (DSC)

Emergency - means any abnormal system condition that requires remedial action to prevent or limit loss of a distribution system or supply of electricity that could adversely affect the reliability of the electricity system. (DSC)

Emergency backup - means a generation facility that has a transfer switch that isolates it from a distribution system. (DSC)

Energy - refers to the product of power multiplied by time usually expressed in kilowatt-hours (kWH).

Energy Diversion - means electric consumption unaccounted for but that can be quantified through various measures upon review of the meter mechanism such as: unbilled meter readings, tap off load(s) before revenue meter or meter tampering.

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

Expansion - means an addition to a distribution system in response to a request for additional customer connections that otherwise could not be made, for example, by increasing the length of the distribution system. (DSC)

Extreme Operating Conditions - conditions are defined in the CSA Standard CAN3-C235-87 (latest edition).

Four-Quadrant Interval Meter - means an interval meter that records the power injected into a distribution system and the amount of electricity consumed by the customer. (DSC)

General Service – means any service supplied to premises other than those designated as Residential and less than 50kW, Large User, or Street Lighting. This includes multi-unit residential establishments such as apartment buildings supplied through service (bulk-metered).

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

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

Generator - means a person who owns or operates a generation facility. (A, MR, DSC)

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; (MR, DSC)

IESO - means the Independent Electricity Market Operator established under the Electricity Act. (DL, DSC)

IESO-Controlled Grid - means the transmission systems with respect to which, pursuant to agreements, the IESO has authority to direct operation. (DSC)

Interval Meter - means a meter that measures and records electricity use on an hourly or sub-hourly basis. (RSC, DSC)

Large User – means a customer with monthly peak demand of 5,000 kW or greater, regardless the demand occurs in the peak or off-peak periods, averaged over 12 months.

Main Service - refers to PUC's incoming cables, bus duct, disconnecting and protective equipment for a building or from which all other metered sub-services are taken.

Market Rules - means the rules made under Section 32 of the Electricity Act. (MR, DL, DSC)

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

Meter Installation - means the meter and, if so equipped, the instrument transformers, wiring, test links, fuses, lamps, loss-of-potential alarms, meters, date recorders, telecommunications equipment and associated data facilities installed to measure power past a meter point, provide remote access to the metered data and monitor the condition of the installed equipment. (RSC, DSC)

Meter Socket - refers to the mounting device for accommodating a socket-type revenue meter.

Metering Services - means installation, testing, reading and maintenance of meters. (DSC)

Micro-Embedded Generation Facility – means an embedded generation facility with a name-plate rated capacity of 10 kW or less. (DSC)

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

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

Multiple Dwelling - means a building which contains more than one self-contained dwelling or unit.

Normal Operating Conditions - means the operating conditions comply with the standards set by the CSA Standard CAN3-C235-87 - latest edition.

Ontario Energy Board – Board or OEB - means Ontario regulator and licensing agency for distribution of electrical energy. (DSC)

Ontario Energy Board Act - means the Ontario Energy Board Act, 1998, S.O. 1998, c.15, Schedule B. (MR, DSC)

Ontario Power Generation Inc. (OPGI) Rate – refers to the rate applied to Ontario Hydro stranded debt. This will terminate at market opening.

Operational Demarcation Point – means the physical location at which the distributor's responsibility for operational control of distribution equipment including connection assets ends. (DSC)

Ownership Demarcation Point – means the physical location at which the distributor's ownership of distribution equipment including connection assets ends. (DSC)

Owner – includes an individual, a corporation, sole proprietorship, a partnership, unincorporated organization, unincorporated association, body corporate and any other legal entity.

Point of Supply – with respect to an Embedded Generator means the supply or connection point where electricity produced by the generator is injected into a distribution system. (DSC)

Power Factor – measures the ratio between Real Power and Apparent Power (i.e., kW/kVA).

Primary Service – any service which is supplied with a nominal voltage greater than 750 Volts.

Private Property – means the property beyond the existing public street allowances.

Rate – means any rate, charge or other consideration and includes a penalty for late payment. (DSC)

Rate Handbook – means the document approved by the Board that outlines the regulatory mechanisms that will be applied in the setting of distributor rates. (DSC)

Reactive Power – this power does not work but is necessary to allow some equipment to operate and is measured in kilo-Volt-Amperes-Reactive (kVAR).

Real Power – the power required to do real work which is measured in kilowatts (kW).

Regulations – means the regulations made under the Act or the Electricity Act. (DSC)

Residential service– means a service which is less than 50kW supplied to a single family dwelling units that is for domestic or household purposes, including seasonal occupancy.

Retail – with respect to electricity means:

- to sell or offer to sell electricity to a consumer,
- to act as agent or broker for a retailer with respect to the sale or offering for sale of electricity, or
- 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. (DSC)

Retailer – means a person who retails electricity. (A, MR, DL, DSC)

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

Secondary Service – any service which is supplied with nominal voltage less than 750 Volts.

Service Area – with respect to a distributor means the area in which the distributor is authorized by its licence to distribute electricity. (A, DL, DSC)

Service Date – means the date that the Customer and PUC mutually agree upon to begin the supply of electricity by PUC.

Service Entrance – means the point and equipment at which the service wires enter the Customer's building.

Service Wires – means the conductors from the distributor's main circuits on public streets or easements to the Customer's premise.

Services – means all facilities required for supplying electrical energy from the Point of Entry of each lot or block to the Delivery Point at detached or semi-detached dwelling units.

Standard Development Agreement (or Subdivision Electrical Distribution System Agreement) - means a legal agreement between the Developer, the Mortgagees and PUB Distribution, in a form suitable for registration at the Lands Registry Office; and which details the engineering and financial responsibilities of all parties to the agreement.

Standard Supply Service Code – means the code approved by the Ontario Energy Board and in effect at the relevant time which among other things establishes the minimum conditions that a distributor must meet in carrying out its obligations to sell electricity under Section 29 of the Electricity Act. (DL)

Street Light System – means all facilities required for illuminating all public rights-of-way as determined by the Municipality.

Supply Voltage – means the voltage measured at the Customer's main service entrance equipment (typically below 750 volts). Operating conditions are defined in the CSA Standard CAN3-C235 (latest edition).

Temporary Service – means an electrical service granted temporarily for such purposes as construction, real estate sales, trailers etc.

Tenant – means a Person that rents and occupies the property of another.

Transformer Room – refers to an isolated enclosure built to applicable codes to house transformers and associated electrical equipment.

Transmission System – means a system for transmitting electricity and includes any structures, equipment or other things used for that purpose. (A, MR, DSC)

Transmitter – means a person who owns or operates a transmission system. (A, MR, DSC)

Underground Electrical Supply System – means all facilities required for supplying electrical energy from any existing distribution circuit to the subdivision, up to the point of Entry to each lot or block.

Un-metered Connections (or Loads) – means electricity consumption that is not metered and is billed based on estimated usage.

Utilization Voltage - refers to those used to supply and operate Customer's equipment (typically below 750 Volts) as measured at the point of utilization.

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. (DSC)

Variable Connection Charge – refers to costs that are to be calculated as the costs associated with the installation of connection assets above and beyond the basic connection.

Wholesale Market Participant - means a person that sells or purchases electricity or ancillary services through the IESO administered markets. (DSC)

SECTION 5 APPENDICES

APPENDIX A: SCHEDULE OF RATES AND MISCELLANEOUS CHARGES

for current rates approved by the OEB

see PUC website at www.puc.ca

or contact the Business Office for a copy of the rate sheet at:

500 Second Line East, P.O. Box 9000, Sault Ste. Marie, Ontario P6A 6P2

Telephone: (705) 759-6500

Facsimile: (705) 759-6510

APPENDIX B: DEMARCATION POINTS AND CONNECTION CHARGES APPLICATION

The table below lists the **connection categories** and their associated **connection types** provided by PUC.

Operational and ownership demarcation points apply as defined in this table to all service connections, unless specifically indicated otherwise in writing by PUC.

Connection Category	Connection Type	Operational Demarcation Point	Ownership Demarcation Point	Connection Charges Applicable
Residential secondary service	Overhead service from overhead distribution	Connections at top of mast	Connections at top of mast	Variable Connection Charge less the Basic Connection Allowance**
	Underground service from overhead distribution	Line side of exterior meter socket or main switch or current transformer. *	Line side of exterior meter socket or main switch or current transformer. *	Variable Connection Charge less the Basic Connection Allowance**
	Underground service from underground distribution	Line side of exterior meter socket or main switch or current transformer. *	Line side of exterior meter socket or main switch or current transformer. *	Variable Connection Charge less the Basic Connection Allowance**
Residential primary service	Overhead primary from overhead distribution step down to overhead or underground secondary	Secondary connections at top of mast or Line side of exterior meter socket or main switch or current transformer. *	Primary line – load side of PUC primary disconnect switch at property line; and Secondary line – line side of exterior meter socket or main switch or current transformer. *	Variable Connection Charge less the Basic Connection Allowance**
	Underground primary from overhead distribution step down to underground secondary	Line side of exterior meter socket or main switch or current transformer. *	Line side of exterior meter socket or main switch or current transformer. *	Variable Connection Charge less the Basic Connection Allowance**
	Underground primary from underground distribution step down to underground secondary	Line side of exterior meter socket or main switch or current transformer. *	Line side of exterior meter socket or main switch or current transformer. *	Variable Connection Charge less the Basic Connection Allowance**

* Varies depending on size of service and/or voltage

** If the Variable Connection Charge is less than the Basic Connection Allowance, then no connection charge applies.

Connection Category	Connection Type	Operational Demarcation Point	Ownership Demarcation Point	Connection Charges Applicable
General secondary service (≤ 200A)	Overhead service from overhead distribution	Connections at top of mast	Connections at top of mast	Variable Connection Charge less the Basic Connection Allowance**
	Underground service from overhead distribution	Secondary connections at load side of PUC transformer	Secondary connections at load side of PUC transformer	Variable Connection Charge less the Basic Connection Allowance**
General secondary service (> 200A)	Underground service from overhead distribution	Secondary connections at load side of PUC transformer	Secondary connections at load side of PUC transformer	Variable Connection Charge
	Underground service from underground distribution	Secondary connections at load side of PUC transformer	Secondary connections at load side of PUC transformer	Variable Connection Charge
General primary service	Overhead primary step down to overhead or underground secondary	Secondary connections at PUC owned transformer; or Primary connections at Customer owned transformer	Load side of PUC disconnect switch at or near property line	Variable Connection Charge
	Underground primary from overhead distribution step down to underground secondary	Secondary connections at PUC owned transformer; or Primary connections at Customer owned transformer	Secondary connections at PUC owned transformer; or Primary connections at Customer owned transformer	Variable Connection Charge
	Underground primary from underground distribution step down to underground secondary	Secondary connections at PUC owned transformer; or Primary connections at Customer owned transformer	Secondary connections at PUC owned transformer; or Primary connections at Customer owned transformer	Variable Connection Charge

** If the Variable Connection Charge is less than the Basic Connection Allowance, then no connection charge applies.

APPENDIX C: ELECTRIC SERVICES CONNECTION CHARGES

(Connection charges for services are in addition to capital contribution for expansions and/or extensions)

All charges are subject to applicable taxes and annual review/revision without notice. Please see PUC website for the latest version at www.puc.ca

Basic Connection Allowance (excludes transformation which is supplied at no cost):	
Dollar value of an overhead 200 ampere service (maximum 30 m wire)	$895
Basic Overhead Service (Residential or General Service <50kW):	
200 ampere service (first 30 m only)	no charge
Extra length for 200 ampere overhead service (beyond first 30 m)	$ 7.50 per m
Basic Underground Residential Service (Customer provides trenching, conduit and pull string):	
From Overhead Distribution (pole)	
3/0 triplex (typically for 200 ampere service) (first 10m of trench only)	no charge
Extra length for 3/0 triplex underground service (beyond first 10m)	$11.75.00 per m
350 triplex (400 ampere service or distance) (first 3m of trench only) no charge	no charge
Extra length for 350 triplex underground service (beyond first 3m)	$27.50 per m
Urban Residential Subdivision (Paid subdivision, PUC provides service trenching):	
Single Family and Semi-detached housing supplied from overhead distribution (pole):	
3/0 triplex (200 ampere) (first 16m of trench only)	$2,675.00 per service
350 triplex (400 ampere or distance) (first 16m of trench only)	$3,825.00 per service
Single Family and Semi-detached housing supplied from underground distribution:	
3/0 triplex (200 ampere) (first 16m of trench only)	$2,325.00 per service
350 triplex (400 ampere or distance) (first 16m of trench only)	$3,600.00 per service
Rural Estate Residential Subdivision (Paid subdivision, PUC provides trenching):	
Single Family housing supplied from overhead distribution (pole):	
3/0 triplex (200 ampere) (first 30m trench length only)	$4,300.00 per service
350 triplex (400 ampere or distance) (first 30m trench line only)	$5,200.00 per service
Single Family housing supplied from underground distribution:	
3/0 triplex (200 ampere) (first 30m trench length only)	$3,850.00 per service
350 triplex (400 ampere or distance) (first 30m trench line only)	$4,700.00 per service
Paid Subdivision Development- Extra length beyond allowed trench length:	
3/0 triplex extra length	$85.00 per m
350 triplex extra length	$105.00 per m

APPENDIX D: SECURITY DEPOSITS

Table 1 DEPOSIT SCHEDULE – RESIDENTIAL SERVICE

Dwelling Type	Electric Heat	Non-Electric Heat	Garage
Apartment	$300.00	$200.00	No deposit if for own non-commercial use
House	$600.00	$400.00	
Semi-detached	$600.00	$400.00	
Duplex	$300.00	$200.00	
Townhouses (ADHA and houses in which there is no water or heat classify as apartments)	$300.00	$200.00	

Table 2 DEPOSIT SCHEDULE – GENERAL SERVICE

Service Size Amperes	1 Phase 120/240 Volts	3 Phase 120/208 Volts	3 Phase 347/600 Volts
60	$135.00	$200.00	$600.00
100	$225.00	$350.00	$1,000.00
200	$450.00	$700.00	$1,950.00
300	-	-	$2,950.00
400	$900.00	$1,350.00	$3,900.00
600	$1,350.00	$2,050.00	$5,900.00
800	-	$2,700.00	$7,850.00
1000	-	$3,400.00	$9,800.00
1200	-	$4,100.00	$11,800.00
1600	-	$5,450.00	$15,700.00
2500	-	$8,500.00	$24,500.00

APPENDIX E: CSA STANDARD VOLTAGE REQUIREMENTS

CSA Standard Voltage Requirements CAN3-C235 Recommended Voltage Variation Limits for Circuits up to 1000 V, at Service Entrance Voltage Variation Limited Application at Service Entrance				
Nominal System Voltages	Operating Conditions			
	Extreme Low	Normal		Extreme High
Single Phase				
120/240	106/212	110/220	125/250	127/254
240	212	220	250	254
480	424	440	500	508
600	530	550	625	635
3-phase, 4-wire				
120/208Y	110/190	112/194	125/216	127/220
240/416Y	220/380	224/388	250/432	254/440
277/480Y	245/424	254/440	288/500	293/508
347/600Y	306/530	318/550	360/625	367/635
3-phase, 3-wire				
240	212	220	250	254
480	424	440	500	508
600	530	550	625	635

APPENDIX F: ELECTRIC VEHICLE SUPPLY EQUIPMENT REQUIREMENTS

Applicants interested in installing electric vehicle supply equipment (EVSE) are encouraged to submit an Electric Vehicle Consultation Information Request (EVCIR) form and email it to eng-dept@ssmpuc.com. The procedures and forms can be found on PUC's website.

EV Charging Connection Process

Step 1. Preliminary Consultation

You may choose to request a preliminary consultation by completing an EV Preliminary Consultation Information Request (EVPCIR) Form and emailing it to eng-dept@ssmpuc.com.

Within 15 calendar days, PUC will respond by providing high-level connection feasibility information.

Step 2. Connection Request

If you wish to connect an EVSE to PUC's distribution system, please complete and submit a Service Connection Form, along with requested information, and email it to eng-dept@ssmpuc.com.

Step 3. Application Review

We will review your application for completeness and notify you within 15 calendar days if additional information is required.

Step 4. Offer to Connect

Once the Service Connection submission is complete, you'll receive an official Offer to Connect letter within 60 days, confirming your eligibility to proceed with your EV charging project.

The letter will outline the requirements and construction costs to connect. If you decide to proceed with the project, you will be required to pay the connection fees detailed in the Offer to Connect. For all intents and purposes, an executed Offer to Connect will serve as the Connection Agreement.

Step 5. Project Development and Construction

After you accept the offer to connect and provide any necessary payment, development, design, and construction work commences. Once the charging infrastructure has been built according to PUC's requirements, you will need to apply to the Electrical Safety Authority for an electrical inspection.

Step 6. Connect

Prior to connecting any EVSE project, PUC requires Connection Authorization from the Electrical Safety Authority (ESA). Customers shall hire a licensed electrician to undertake installation and schedule inspection of EVSE work. Customers should also evaluate if their work requires significant design that may require a Professional Engineer licensed by Professional Engineers Ontario to review and approve. Once this complete, provide the ESA approval to PUC and we will arrange to energize the facility.

DOCUMENT CHANGES HISTORY

REVISION DATE	SECTION & EXPLANATION
2024-08-01	1.2- Related Codes and Governing Laws - added related codes and governing laws to existing list 1.4- Amendments to Changes - reworded section 1.5- Contact information – added contact information 1.8- Disputes – added Embedded generators and updated contact information 2.1.7.1 - Standard Form of Contract – updated section re: New of Modified service 2.2.1 - Disconnection for Arrears – updated section for PUC's process 2.3.7.2 - Meter Location – clarified location (removed restriction on not more than 3m back from front of building) and added where there is potential for damage to a meter, Customer shall safeguard 2.3.7.4 - Current Transformer Boxes – added location should be reviewed and approved by PUC 2.3.7.7 - Meter Reading – added PUC shall have the right to install remote reading technology on customer premises 2.3.7.9 - Totalizing Meter Reads – added totalizing is done by MIST meters connected to phone lines, communications equipment must be present 2.4.2.6 - Amount of Deposit/Deposit Waived for Customers/Form of Security Deposit/Deposits Refunded and Goo d Payment History – updated to align to new changes relating to OEB amendments to customer services rules 3.0.3.2 - Underground Primary Cables – added cable cost to the Customer, Service Removal – added that items paid for by Customer remain on site 3.3.6.1 - Group-Operated Switch – added that switch will be supplied within the pad mount transformer where feasible 3.3.6.3 - Drawings – added Site Plan must be updated and sent to PUC 3.4.1.4 - Contribution Cap for Residential Subdivisions – removed section Section 4 - Glossary of Terms – added sources for Definitions and added/updated definitions as required Appendix C - Electric Services Connection Charges – updated chart Appendix F- Economic Evaluation for System Expansion – removed form
2025-03-31	Added Appendix F - Electric Vehicle Supply Equipment (EVSE) per OEB requirements Added Appendix G – Document Changes History Update puc website throughout from www.ssmpuc.com to www.puc.ca