



# Conditions of Service

## Enova Power Corp.

Issued for Customer Comments

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Revision 1.0

## PREFACE

### Conditions of service

Enova Power Corp's Conditions of Service contains three major sections:

**Section 1 (Introduction):** contains references to the legislation that covers the Conditions of Service, the rights of the Customer and of Enova Power Corp., and the dispute resolution process.

**Section 2 (General Distribution Activities):** contains references to services and requirements that are common to all Customer classes. This section covers items such as Rates, Billing, Connections, Disconnection, Emergency Response, Power Quality, Metering etc.

**Section 3 (Customer Class Specific):** contains references to services and requirements specific to the respective Customer class. This section covers items such as Service Entrance Requirements, Delineation of Ownership, Connection Charges, Embedded Generation Facilities etc.

Other sections include the **Glossary of Terms (Section 4)**, and **Appendices**.

<b>Section 1 - Introduction.....</b>	<b>1</b>
<b>1.1 Identification of Distributor and Service Area.....</b>	<b>2</b>
<b>1.2 Related Codes and Governing Laws.....</b>	<b>2</b>
<b>1.3 Interpretation .....</b>	<b>3</b>
<b>1.4 Amendments and Changes .....</b>	<b>3</b>
<b>1.5 Contact Information .....</b>	<b>4</b>
<b>1.6 Customer Rights .....</b>	<b>4</b>
<b>1.7 Distributor Rights .....</b>	<b>5</b>
1.7.1 Access to Customer Property.....	5
1.7.2 Safety of Equipment.....	5
1.7.3 Operating Control.....	6
1.7.4 Repair of Defective Customer Electrical Equipment.....	6
1.7.5 Repair of Customer Physical Structures.....	7
1.7.6 Enova Power's Automatic Reclosing Facilities .....	7
1.7.7 Customer Protective Devices.....	7
<b>1.8 Disputes.....</b>	<b>8</b>
<b>Section 2 – General Distribution Activities.....</b>	<b>9</b>
<b>2.1 Connections .....</b>	<b>10</b>
2.1.1 Building that Lies Along.....	11
2.1.2 Expansions / Offer to Connect.....	11
2.1.3 Connection Denial .....	16
2.1.4 Inspections Before Connection .....	17
2.1.5 Relocation of Distribution Facilities.....	19
2.1.6 Easements .....	20
2.1.7 Contracts .....	20
<b>2.2 Disconnection .....</b>	<b>22</b>
2.2.1 Authority to Disconnect.....	22
2.2.2 Disconnection and Reconnection .....	22
2.2.3 Operational .....	23
<b>2.3 Conveyance of Electricity.....</b>	<b>23</b>
2.3.1 Limitations on the Guaranty of Supply.....	23
2.3.2 Power Quality and Service Interruption .....	24
2.3.3 Electrical Disturbances .....	26
2.3.4 Standard Voltage Offerings.....	27
2.3.5 Voltage Guidelines .....	27
2.3.6 Emergency Backup Generation Facility.....	28
2.3.7 Metering.....	28
<b>2.4 Tariffs and Charges .....</b>	<b>32</b>
2.4.1 Distribution Services.....	32
2.4.2 Energy Supply.....	33
2.4.3 Deposits.....	33
2.4.4 Billing Cycle/Classification.....	37
2.4.5 Payments and Late Payment Charges.....	38

2.5 Customer Information .....	39
<b>SECTION 3 – Customer Class Specific .....</b>	<b>40</b>
3.0 General Information .....	41
3.1 Residential Service .....	44
3.1.1 Definition .....	44
3.1.2 Connection .....	44
3.1.3 Supply .....	45
3.1.4 Connection to a Building that Lies Along.....	47
3.2 General Service .....	52
3.2.1 Definition .....	52
3.2.2 Connection .....	52
3.2.3 Supply .....	54
3.2.4 Connection to a Building that Lies Along.....	56
3.3 General Service (Above 50 kW) .....	61
3.4 Large Use Customers (5,000 kW and Above).....	61
3.5 Embedded Generation Facility .....	61
3.5.1 General.....	61
3.5.2 Connection Process .....	61
3.5.3 Small, Mid-Size and Large Embedded Generation Facilities .....	62
3.5.4 Net Metering Program for an Embedded Generation Facility .....	63
3.5.5 Gross Load Billing .....	63
3.5.6 Facilities Standby Charge (City of Kitchener and Township of Wilmot) .....	63
3.5.7 Metering for Generation .....	64
3.6 Embedded Wholesale Market Participant .....	64
3.7 Embedded Distributor .....	64
3.8 Unmetered Connections .....	65
3.8.1 Unmetered Load Customer Rights and Obligations .....	65
3.8.2 Unmetered Load Connection and Data Update Process .....	66
3.8.3 Demarcation Points (Excluding Street Lighting).....	67
3.8.4 Demarcation Points – Street Lighting.....	67
3.9 Pole Attachments .....	67
3.10 Temporary Service Connections .....	67
<b>Section 4 – Glossary of Terms.....</b>	<b>69</b>
<b>Appendix A – Enova Power Service territory Territory .....</b>	<b>77</b>
<b>Appendix B – Ownership Demarcation, Fees .....</b>	<b>79</b>
<b>Appendix C – Mandatory Conversion Areas.....</b>	<b>84</b>
<b>Appendix D – Areas with Updated Secondary Voltages .....</b>	<b>89</b>
<b>Appendix E – City of Kitchener Downtown Network .....</b>	<b>92</b>

## **SECTION 1 - INTRODUCTION**

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## 1.1 Identification of Distributor and Service Area

Enova Power Corp. referred to herein as "Enova Power" is a corporation incorporated under the laws of the Province of Ontario and a Distributor of Electricity.

Enova Power is licenced by the Ontario Energy Board (OEB) to supply electricity to Customers as described in the Electricity Distribution Licence ED-2022-0006 ("Distribution Licence") issued to Enova Power. Additionally, there are requirements imposed on Enova Power by the various codes referred to in the Licence, the Electricity Act, 1998, the Ontario Energy Board Act, 1998, and various letters and directives as issued by the OEB or Minister of Energy from time to time. This document has been developed by Enova Power in accordance with Subsection 2.4 and Appendix 'A' of the Distribution System Code.

Enova Power is limited to operate distribution facilities within its service area as defined in its Distribution Licence. The defined service area is primarily in the City of Kitchener, the City of Waterloo, the Township of Wellesley, the Township of Wilmot, and the Township of Woolwich in the Regional Municipality of Waterloo. See Appendix A of this document for a map of Enova Power's service area.

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

Enova Power acknowledges that its offices are situated on the Haldimand Tract, land that was granted to the Haudenosaunee of the Six Nations of the Grand River, and are within the territory of the Neutral, Anishinaabe, and Haudenosaunee peoples.

## 1.2 Related Codes and Governing Laws

The supply of electricity or related services by Enova Power to any Customer shall be subject to various laws, regulations and codes, including the provisions of the latest editions of the following documents:

- Electricity Act, 1998.
- Ontario Energy Board Act, 1998.
- Distribution Licence.
- Affiliate Relationships Code (ARC).
- Transmission System Code (TSC).
- Distribution System Code (DSC).
- Retail Settlement Code (RSC).
- Standard Service Supply Code (SSSC).
- Ontario Electrical Safety Code (OESC).
- Energy Consumer Protection Act.
- Enova Power "Conditions of Service" document.

In the event of a conflict between this document and the Distribution Licence or regulatory codes issued by the OEB, or the provisions of the Electricity Act, 1998, the Distribution Licence and associated regulatory codes shall prevail in the order of priority indicated above.

When planning and designing for electricity service, Customers and their authorized representatives 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 ensure compliance with their requirements. Without limiting the foregoing, the work shall be conducted in accordance with the latest edition of the Ontario Building Code (OBC), Ontario Occupational Health and Safety Act (OHSA), the Regulations for Construction Projects, Infrastructure Health and Safety Association (IHSA) Electrical Utility Safety rulebook and the Ministry of Transportation (MTO) traffic requirements.

### **1.3 Interpretation**

In these Conditions of Service, unless the context otherwise requires:

- Words and phrases shall have the meaning ascribed to them as in Section 4 of this document or as in the Definition section of the DSC;
- Headings, paragraph numbers, bolding, italics and underlining are for convenience only and do not affect the interpretation of these Conditions of Service;
- Words referring to the singular include the plural and vice versa;
- Words referring to a gender include any gender;
- A reference to a document or a provision of a document includes any amendment, supplement, or replacement of that document or provisions in that document; and,
- An event that is required under these Conditions of Service that occurs on or by a stipulated day which is a holiday may occur on or by the next business day that is not a holiday.

### **1.4 Amendments and Changes**

The provisions of these Conditions of Service and any amendments made from time to time form part of any Contract made between Enova Power and any connected Customer, Retailer, Embedded Generation Facilities or Embedded Distributor and these Conditions of Service supersedes all previous Conditions of Service, oral or written as of its effective date.

In the event of changes to these Conditions of Service, Enova Power shall provide advanced public notice. A revised copy of this document will be published on the Enova Power website, accessible at [www.enovapower.com](http://www.enovapower.com), and made available to the public. It is the Customer's responsibility to ensure they are referencing the current version of these Conditions of Service and all current amendments and referred to documents. One (1) copy per Customer may be obtained at the Enova Power offices. The current

version of the document can be viewed on the Enova Power's website, accessible at [enovapower.com](http://enovapower.com), at no charge.

## 1.5 Contact Information

Customers are encouraged to visit Enova Power's website, accessible at [enovapower.com](http://enovapower.com), to obtain most up-to-date contact information.

### **Address of Main Office:**

301 Victoria Street South  
Kitchener, Ontario  
N2G 4L2

### **Office Hours, Generally Are:**

Monday to Friday  
8:30 am to 4:00 p.m.

### **Telephone Numbers:**

General inquiries

226-896-2200

Emergency services

519-888-5556 (City of Waterloo, Townships of Wellesley and Woolwich)

519-745-4774 ext. 6231 (City of Kitchener, Township of Wilmot)

Customer services

226-896-2200

### **Contact Us Online:**

[enovapower.com/contactus](http://enovapower.com/contactus).

## 1.6 Customer Rights

All Customers shall have non-discriminatory access to Enova Power's distribution system and services in accordance with the terms of these Conditions of Service and the applicable Acts, Regulations, and Codes and Licence(s).

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

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

Notwithstanding the above, neither Enova Power 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.

The Customer or an Embedded Generation Facility shall indemnify and hold harmless Enova Power, its directors, officers, employees and agents from any claims made by any third parties in connection with the construction, installation and operation of an Embedded Generation Facility or other electrical apparatus by or on behalf of the Customer or Embedded Generation Facility.

## **1.7 Distributor Rights**

### **1.7.1 Access to Customer Property**

The Customer will provide free of charge a convenient and safe place, satisfactory to Enova Power, for installing, maintaining and operating its equipment in, on, or about the Customer's premises. Enova Power 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 party over whom Enova Power has no control.

The Customer will provide unimpeded, safe, secure access to Enova Power employees or its authorized representatives at all times for the purposes of installing, removing, inspecting, maintaining, operating or changing its assets, testing or measuring the operating characteristics of the system. When access is impeded, Enova Power shall not be held liable for damages to Customer property incurred while obtaining safe access to metering or distribution equipment. Enova Power will exercise the right to enter the lands and premises on which these facilities are located pursuant to the "Powers of Entry" described in Section 40 of the Electricity Act, 1998 and any successor acts thereto.

To assist with distribution system outages or emergency responses, Enova Power may require a Customer to provide Enova Power with emergency access to Customer-owned distribution equipment that normally is operated by Enova Power or Enova Power-owned equipment on the Customer's property. Failure of the Customer to provide proper access may result in the disconnection of service.

### **1.7.2 Safety of Equipment**

The Customer will comply with all aspects of the OESC with respect to ensuring that equipment is properly identified and connected for metering and operation purposes. The Customer will take the steps necessary to correct any deficiencies in a timely manner. If the Customer does not take such action within a period of time deemed reasonable by Enova Power, the supply of power to the Customer may be disconnected.

Customers will be required to pay the cost of repairs or replacement of Enova Power's equipment that has been damaged or lost by the direct or indirect act or omission of the Customer or its authorized representatives.

Without written approval from Enova Power, 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 distribution lines, endanger the equipment of Enova Power, interfere with the proper and safe operation of Enova Power's facilities or adversely affect compliance with any applicable legislation in the sole opinion of Enova Power.

Any landscaping around distribution lines must meet the clearance requirements set out by the Electrical Safety Authority (ESA) "Planting Under or Around Powerlines and Electrical Equipment" guidelines. Enova Power will monitor and if required, prune or remove any trees around Enova Power owned distributions lines, whether they are on private or public property. The Customer is responsible for maintaining clearances on any distribution line that they own.

### **1.7.3 Operating Control**

Only an employee or representative of Enova Power, or other Person lawfully entitled to do so, shall remove, replace, alter, repair, inspect or tamper with Enova Power's equipment.

The physical location on Customer's premises at which a Distributor's responsibility for operational control of distribution equipment ends is defined by the DSC as the "ownership demarcation point." - See Section 3.0 of this document.

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

The Customer will be required to repair or replace any equipment owned by the Customer that may affect the integrity or reliability of Enova Power's distribution system or the safety of the public or Enova Power staff. If the Customer does not take such action within the time frame deemed reasonable by Enova Power, ESA or other relevant regulatory agencies, Enova Power may disconnect the supply of power to the Customer and/or implement mitigating measures on its distribution system at the Customer's expense.

If for any reason, the Customer's service needs to be disconnected by Enova Power (e.g. an order from the ESA, etc.), the service will not be reconnected by Enova Power unless all aspects of the Customer's electrical equipment comply with these Conditions of Service.

To facilitate the maintenance of the Customer's equipment, the Customer may arrange with Enova Power the necessary power interruption. This service will be scheduled during Enova Power's normal business hours. Enova Power will charge for power

interruptions arranged at the Customer's request. Outages outside Enova Power's normal business hours can be arranged for additional charges.

### **1.7.5 Repair of Customer Physical Structures**

Depending on the ownership demarcation point, the construction and maintenance of all civil works on private property owned by the Customer, including such items as transformer rooms, transformer foundations, conductor chambers, conductor pull rooms and underground conduit, will be the responsibility of the Customer. All civil work on private property must be inspected and accepted by Enova Power and the ESA.

The Customer is responsible for the maintenance and safety of its structural and mechanical facilities located on private property. Failure to do so may result in the disconnection of the Customer's service.

### **1.7.6 Enova Power's Automatic Reclosing Facilities**

In order to safeguard and protect Enova Power's distribution system, Enova Power installs facilities for automatic reclosing of circuit breakers and distribution reclosers and from time to time may change the operating characteristics of any such reclosing facilities, such as reclosing time or number of phases being energized. The Customer shall be responsible for providing, at their expense:

- Adequate protective equipment for any electrical apparatus which might be adversely affected by Enova Power reclosing facilities; and
- Such equipment as may be required for the proper reconnection of any apparatus or equipment of the Customer, without adversely affecting the proper functioning of the Enova Power reclosing facilities.

### **1.7.7 Customer Protective Devices**

In order to safeguard and protect Enova Power's distribution system, Enova Power installs facilities for the protection of Enova Power distribution facilities and coordination of Enova Power protection systems.

The Customer is responsible for ensuring the proper protection of customer equipment and that the requirements of the OESC are met.

The Customer shall be responsible for providing at their own expense including, but not limited to, single-phasing conditions:

- Adequate protective equipment for any electrical apparatus which might be adversely affected by Enova Power operational practices or protective devices;
- Such equipment as may be required for the proper disconnection of any apparatus or equipment of the Customer, without adversely affecting the proper functioning of Enova Power distribution facilities; and

- Such equipment as may be required by the OESC.

## 1.8 Disputes

The following outlines the Enova Power administrative procedure for resolving complaints by Customers and/or market participants (the “Disputing Party”) regarding services provided under the terms of the Enova Power Distribution Licence:

1. The Disputing Party shall submit their disputes in writing to Enova Power via postal mail or Enova Power’s website at [enovapower.com](http://enovapower.com) – see Section 1.5 of this document for contact information. Each complaint must include:
  - The name and address of the person or body making it;
  - The particulars of the complaint; and
  - Any information or facts supporting the complaint or referral.
2. The complaint must be signed by the Disputing Party making it and, where it is made by a corporation or other body, the complaint must be signed by an authorized representative of the corporation or body.
3. The complaint must be addressed to the Enova Power staff representative currently dealing with the dispute, who will forward the complaint to the responsible Department Manager for that area of activity.
4. Upon receipt of the complaint, an acknowledgement will be sent, within 10 business days, stating the position of Enova Power and/or investigations to take place regarding the complaint and an appropriate time line to complete these investigations.
5. In the event that the dispute is not resolved in step 4 above, within the time line specified therein, the Department Manager will forward the complaint to the respective Vice-President.
6. The Vice-President will contact the complainant to review the details of the dispute and attempt, in good faith, to resolve the complaint within ninety (90) business days. If resolution is expected to exceed the normal resolution period, Enova Power will advise the Disputing Party, including the reasons for the delay.
7. If Enova Power and the Disputing Party cannot reach a mutual agreement, Enova Power will refer the complaint to an independent third party resolution agency, which has been selected by the OEB. Until the OEB approves an independent third party complaints resolution agency, such complaints will be referred to the OEB, which has assumed this role.
8. Enova Power shall refer any disputes that lead to legal action against the corporation to its legal counsel.
9. All costs of the complaint resolution agency shall be shared equally by the Parties, and each Party shall be responsible for its own expenses, including counsel’s fees, unless the award shall specify a different division of the costs.
10. Enova Power will keep records of all written complaints. These records will include the following:
  - a. Person’s name and address;
  - b. Nature of complaint;
  - c. Resolution date; and,
  - d. Results of resolution.

## **Section 2 – General Distribution Activities**

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## 2.1 Connections

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

The Customer shall contact Enova Power to request a service layout prior to installing any electrical equipment or apparatus. Enova Power will review the availability of electrical supply and determine the required electrical service entrance location, metering location, and specific servicing requirements.

Enova Power shall make an Offer to Connect any Customer within the boundaries of our licensed distribution area. Buildings which “lie along” Enova Power distribution facilities as defined in Section 2.1.1 of this document will be connected in accordance with Section 3 of this document. Buildings that do not “lie along” our existing distribution system and which require an Expansion prior to connection as defined in the DSC.

Customers requesting a connection must abide by the terms and conditions of this document in addition to the applicable regulations and codes. For details about connections to specific Customer classes, please refer to Section 3 of this document.

In general, there shall be only one (1) point of supply provided per individual property. Existing properties with more than one (1) service will be required to combine them when any change is required to the service. Where installations require more than one electrical supply for loading, reliability, or geographic reasons, the Customer shall consult with Enova Power as early as possible for specific supply requirements.

For all Customers excluding non-residential Electric Vehicle Supply Equipment (EVSE) installations, Enova Power will follow the timelines set out in the latest edition of the DSC for responding to a written request for a Connection, making an Offer to Connect or any other applicable steps as set out by the DSC.

For non-residential EVSE installations, Enova Power will follow the timelines set out in the latest edition of the Electric Vehicle Charging Connection Procedures (EVCCP) and the DSC for responding to a written request for a Connection, providing an initial consultation regarding the connection process, making an Offer to Connect or any other applicable steps as set out by the DSC and EVCCP.

For Embedded Generation Facilities, Enova Power will follow the timelines set out in the latest edition of the Distributed Energy Resource Connection Procedures (DERCP) and the DSC for responding to a written request for a Connection, providing a preliminary consultation regarding the connection process, performing a connection impact assessment, making an Offer to Connect, making a Connection Agreement or any other applicable steps as set out by the DSC and DERCP.

For Embedded Distributors, Enova Power will follow the timelines set out in Appendix G

of the latest edition of the DSC and as outlined in Section 3.7 of this document for responding to a written request for a Connection, performing a system impact study, issuing a letter of intent, making a Connection Agreement or any other applicable steps as set out by the DSC

No connection will be made until a Connection Authorization is received from the ESA indicating that all Customer owned equipment has met the requirements of the OESC.

### **2.1.1 Building that Lies Along**

Enova Power will make an Offer to Connect to its distribution system if the proposed construction “lies along” any of the lines of Enova Power’s distribution system and if the owner, occupant or other person in charge of the construction requests the connection in writing.

For the purposes of these Conditions of Service, "lies along" means a Customer, property or building that is directly adjacent to Enova Power’s existing distribution facilities of the appropriate voltage and capacity and that can be connected without an expansion or enhancement to the distribution system.

A building that lies along a distribution line may be refused connection to that line should the distribution line, in the sole opinion of Enova Power, not meet the conditions required to connect new load to that line.

Enova Power will not be able to provide guaranteed isolations of existing distribution lines or facilities to support the construction of new buildings. Enova Power may flag distribution lines at a cost charged back to the requestor.

#### **2.1.1.1 Connection Charges**

Enova Power shall recover costs associated with the installation of connection assets by Customer class via the basic connection allowance and variable connection charge, collected directly from the Customer, as applicable.

The variable connection charge shall be calculated as the costs associated with the installation of connection assets above and beyond the basic connection allowance. Enova Power may recover variable connection charge based on actual cost directly from the Customer.

For details about connection charges to specific Customer classes, please refer to Section 3 of this document.

### **2.1.2 Expansions / Offer to Connect**

When an Expansion is required to connect a Customer or group of Customers, Enova Power will complete an economic evaluation, which follows the methodology, common elements and related assumptions provided in Appendix B of the DSC. This evaluation

will determine whether a capital contribution is required from the Customer or group of Customers for the expansion. The connection of the Customer or group of Customers to the expanded distribution system is detailed in Section 3 of this document. Enova Power will complete the preliminary planning, design and engineering specifications of the work required for all distribution system expansions and connections and make an Offer to Connect.

An initial economic evaluation will be performed based on the estimated costs and forecasted revenues of the expansion project to determine if the future revenue from the Customer will pay for the cost of the expansion as a condition of service connection. If there is a shortfall between the net present value of the projected costs and revenues, a capital contribution in the form of cash or certified cheque equivalent to the shortfall is required from the Customer.

### **2.1.2.1 General Information**

For expansions that do not require a capital contribution, Enova Power may require the Customer to provide an expansion deposit for up to 100% of the present value of the projected capital costs and on-going maintenance costs of the expansion project.

For expansions that require a capital contribution, Enova Power may require the Customer to provide an expansion deposit for up to 100% of the present value of the forecasted revenues of the expansion project.

The expansion deposit must be either in the form of (i) cash, (ii) certified cheque, or (iii) an irrevocable letter of credit issued by a Schedule I bank as defined in the Bank Act, or (iv) surety bond.

### **2.1.2.2 Customer Expansion Agreement (Capital Contribution Required)**

The Customer will be required to sign a “Customer Expansion Agreement” with Enova Power when a capital contribution is required for the construction of an expansion as described in Section 2.1.2 of this document.

When the construction of the project is complete, Enova Power may reconcile the actual costs with the estimated costs and shall obtain from the Customer, or credit the Customer for, any difference between the two calculations.

When the Customer has been connected for a minimum of twelve (12) months, Enova Power will complete a final economic evaluation using the actual cost of the expansion and the Customer’s actual energy consumption to determine the actual amount of the Customer’s capital contribution. If the capital contribution amount resulting from the final economic evaluation differs from the capital contribution amount collected from the Customer, Enova Power may invoice or credit the Customer with the difference.

Further credits will be determined if and when unforecasted customers connect to the expansion. See Section 2.1.2.6 of this document.



Enova Power will construct the required expansion and connect the service in accordance with the “Customer Expansion Agreement” and the conditions documented in Section 3 of this document. In addition, a security deposit may be required in accordance with Section 2.4 of this document.

### **2.1.2.3 Residential Subdivision Servicing Agreement**

The Customer will be required to complete a Residential Subdivision Servicing Agreement with Enova Power.

Enova Power may also require an expansion deposit for 100% of the present value of the forecasted revenues, i.e. the difference between the estimated costs of the expansion project and the amount of capital contribution paid by the Customer.

When the construction of the project is complete, a final economic evaluation will be performed based on the forecasted revenues and actual costs incurred. The amounts collected for the capital contribution and expansion deposit from the initial economic evaluation will be reconciled with the actual cost. Enova Power may obtain from the Customer or credit the Customer for any difference between the two calculations.

Once the facilities are energized, Enova Power may annually return the percentage of the expansion deposit in proportion to the actual connections that materialized in that year. This annual calculation shall only be done for the duration of the customer connection horizon of five (5) years. If at the end of the customer connection horizon the forecasted connections contemplated by the original Offer to Connect have not materialized, Enova Power may retain any cash held as an expansion deposit or be entitled on any letter of credit or bond held as an expansion deposit.

If the Customer has provided any expansion deposit in the form of cash, any portion of the expansion deposit held as cash that is returned to the Customer shall include interest on the returned amount from the date of receipt of the full amount of the expansion deposit at the Prime Business Rate set by the Bank of Canada less 2 percent.

### **2.1.2.4 Commercial Subdivision Servicing Agreement**

When upstream expansion is required to connect the subdivision to our existing distribution system, the Customer will be required to complete a Commercial Subdivision Servicing Agreement with Enova Power.

Enova Power may also require an expansion deposit for 100% of the present value of the forecasted revenues, i.e. the difference between the estimated costs of the expansion project and the amount of capital contribution paid by the Customer.

When the construction of the project is complete, a final economic evaluation will be performed based on the forecasted revenues and actual costs incurred. The amounts collected for the capital contribution and expansion deposit from the initial economic

evaluation will be reconciled with the actual cost. Enova Power may obtain from the Customer or credit the Customer for any difference between the two calculations.

Once the facilities are energized, Enova Power may annually return the percentage of the expansion deposit in proportion to the actual demand that materialized in that year. This annual calculation shall only be done for the duration of the customer connection horizon of five (5) years. If at the end of the customer connection horizon the forecasted demand contemplated by the original Offer to Connect have not materialized, Enova Power may retain any cash held as an expansion deposit or be entitled on any letter of credit or bond held as an expansion deposit.

If the Customer has provided any expansion deposit in the form of cash, any portion of the expansion deposit held as cash that is returned to the Customer shall include interest on the returned amount from the date of receipt of the full amount of the expansion deposit at the Prime Business Rate set by the Bank of Canada less 2 percent.

#### **2.1.2.5 Alternative Bid Process**

When the construction of an expansion project does not involve work with existing circuits and requires a capital contribution, the Customer may seek an alternative bid. The contractors from which the Customer may seek alternate bids must be pre-qualified by Enova Power.

The Customer will be required to complete an "Alternative Bid Agreement" with Enova Power. If a Customer chooses to pursue an alternative bid and elects to obtain the services of a contractor for an aspect of the expansion project; the following shall apply.

Enova Power shall:

- Carry out the distribution system planning for the expansion; and develop the specifications for the design, engineering and layout of the expansion and connection.
- Perform the construction work on existing Enova Power facilities and equipment.
- Inspect and approve constructed facilities and material specifications as part of a system quality review and commissioning activity, prior to connecting the constructed facilities to the existing distribution system and be reimbursed on a fee for service basis.
- Upon commissioning of the new distribution facilities constructed by the Customer's contractor, assume all rights, materials and operational control of the distribution facilities located on public property or an acquired easement.

The Customer shall:

- Complete all the work that is eligible for alternative bid.

- Select, hire, and pay the contractor's costs for the work eligible for the alternative bid and assume full responsibility for the construction of that aspect of the expansion project.
- Be responsible for administering the contract. Administering the contract includes acquisition of all required permissions, permits and easements.
- Be required to provide capital contribution in the form of cash equivalent to the amount of non-eligible uncontested alternative bid work associated with the expansion project, which includes but is not limited to the costs for planning, design, engineering, or installation of facilities required to complete the project; cost for inspection or approval of the work performed by the contractor; and cost for making the final connection of the new facilities to the Enova Power's distribution system.
- Upon commissioning of the new distribution facilities constructed by the Customer's contractor, transfer all rights and materials concerning the distribution facilities located on public property or an acquired easement to Enova Power
- Provide warranties as specified in the "Alternative Bid Agreement" on all material and workmanship completed in the alternative bid.

The Customer may also be required to provide an expansion deposit for up to 100% of the present value of the forecasted revenues of the expansion project.

**Transfer Price for Alternative Bid Work:**

The transfer price for the alternative bid work shall be the lower of the cost to the Customer to construct the expansion facilities or the amount set out in the initial Offer to Connect to do the alternative bid work.

If the Customer does not provide the cost to construct the expansion facilities to Enova Power within thirty (30) days of all the new facilities being energized, then the amount of the transfer price shall be the amount set out in the initial Offer to Connect to do the alternative bid work instead of the Customer's cost.

**Final Economic Evaluation and Capital Contribution Settlement:**

When the construction of the project is complete, a final economic evaluation will be performed based on the actual costs for the Enova Power work, forecasted revenues, plus any transfer price to be paid to the Customer for the alternative bid work, where applicable. The amounts collected for the capital contribution and expansion deposit from the initial economic evaluation will be reconciled with the final economic evaluation. Enova Power may obtain from the Customer, or credit the Customer for, any difference between the two calculations.

Enova Power may choose to retain up to 10% of the expansion deposit for a warranty period of up to two (2) years. This portion of the expansion deposit can be applied to any work required to repair the expansion facilities within the two-year warranty period. The warranty period begins upon written notice from Enova Power following the installation and satisfactory inspection and full energization of the expansion facilities in

its entirety. Enova Power shall return any remaining portion of this part of the expansion deposit at the end of the two-year warranty period.

Enova Power may annually return the percentage of the expansion deposit in proportion to the actual connections or actual demand that materialized in that year. This annual calculation shall only be done for the duration of the customer connection horizon of five (5) years. If at the end of the customer connection horizon the forecasted demand contemplated by the original Offer to Connect has not materialized, Enova Power may retain any cash held as an expansion deposit or be entitled on any letter of credit or bond held as an expansion deposit.

If the Customer has provided any expansion deposit in the form of cash, any portion of the expansion deposit held as cash returned to the Customer shall include interest on the returned amount from the date of receipt of the full amount of the expansion deposit at the Prime Business Rate set by the Bank of Canada less 2 percent.

#### **2.1.2.6 Unforecasted Customers**

In the event that a Customer is added to an eligible expansion project that was constructed and/or paid for by another Customer, Enova Power will re-evaluate the cost of the entire expansion, using the economic evaluation model, considering both the new Customer(s) forecasted load and the existing Customer's actual load. The result of the re-evaluation will determine a redistribution of any capital contribution requirements for that section of the distribution facility.

Expansions are eligible for reconciliation for Unforecasted Customers for a period of five (5) years after the first connection to the expanded distribution facility.

#### **2.1.3 Connection Denial**

Enova Power may refuse to connect or re-connect any customer for the following reasons:

- The connection would be in contravention of existing laws of Canada and the Province of Ontario.
- Contravention of Municipal By-laws.
- The connection would cause Enova Power to be in violation of any of the conditions of the Distribution Licence.
- The connection would cause an adverse effect on the reliability and safety of the distribution system.
- Use of a distribution system line for a purpose that it does not serve, and that Enova Power does not intend to serve.
- Public safety reasons or imposition of an unsafe work situation beyond normal risks inherent in the operation of the distribution system.
- The connection would cause a material decrease in the efficiency of the distribution system, such as power factor.

- The connection would cause an adverse effect on the quality of distribution services received by an existing customer connection.
- If an electrical connection to Enova Power's distribution system does not meet Enova Power's design requirements or has not been inspected by Enova Power during construction as required by these Conditions of Service.
- The connection would cause discriminatory access to distribution services by other customers.
- The person or entity requesting connection is indebted to Enova Power for previous distribution services or for non-payment of a security deposit.
- Potential increases in monetary amounts that already are in arrears with Enova Power.
- The ESA has not issued an Authorization for Connection.
- A New Account Application and Contract has not been completed.
- Any other conditions documented in Enova Power's Conditions of Service.

A connection denial will be documented and forwarded to the requesting party explaining the reason for the connection denial and the outstanding requirements for connection. If Enova Power is unable to provide a remedy to resolve the issue, it is the Customer's responsibility to do so before a connection is made.

#### **2.1.4 Inspections Before Connection**

All new or upgraded electrical installations and equipment owned by the Customer must be inspected by the ESA as stated in the OESC, and a connection authorization received by Enova Power prior to electrical service connection. The location of the Customer's service entrance equipment will be subject to the review and approval of Enova Power and the ESA and may be subject to the upgrade requirements to bring the installation in line with current codes and standards.

Where any electrical installation or part thereof (excluding high voltage equipment) has been disconnected or cut off from a source of supply by Enova Power for six months or less for non-payment of an account or because of a change in occupancy of premises, Enova Power may reconnect the installation or part thereof without obtaining a connection authorization.

Where a service has been disconnected or cut off from a source of supply by Enova Power for a period exceeding six months for non-payment of an account or due to of a change in occupancy of premises, an inspection by the ESA is required. It shall be the responsibility of the Customer requiring the reconnection to arrange for this inspection and the payment of the fees.

Further inspections must be completed for the following service types. Customers are required to provide Enova Power with sufficient notice to conduct inspections as detailed in the Offer to Connect.

**Duct Banks:**

Enova Power must inspect, prior to electrical service connection, direct buried and concrete encased duct banks against applicable Enova Power construction standards. These inspections are to be done when the ducts are in place but before concrete is poured and backfill applied. Inspection of these installations does not convey responsibility for duct continuity or condition to Enova Power.

**Transformer Foundations and Switchgear Foundations:**

Enova Power must inspect and approve these structures prior to the installation of Enova Power's equipment to ensure the structures meet Enova Power construction standards.

**Transformer Rooms and Switchgear Rooms:**

Transformer, switchgear, or electrical equipment rooms require inspection and certification from three parties.

1. The Municipal Building and Inspections Division inspects these rooms to the requirements of the OBC and relevant municipality requirements.
2. ESA inspects these rooms to the requirements of the OESC. A Connection Authorization from ESA including inspection of the transformer room is required prior to connection of the electrical service.
3. Enova Power must inspect and approve these structures prior to the installation of utility equipment to ensure the structures meet Enova Power construction standards.

**Transformer and Switchgear Grounding Grids:**

Enova Power shall inspect and approve grounding grids before backfill is applied to ensure they meet Enova Power construction standards.

**Customer Owned High Voltage Equipment:**

When Customer Owned high voltage switchgear or transformation is removed from the Enova Power system for planned maintenance or inspections, a Connection Authorization must be received from the ESA before the service will be reconnected.

**Metering:**

Provision for metering including communication circuits will be specified by Enova Power and shall be inspected against applicable construction standards in Enova Power's Metering Specifications that is on Enova Power's website at [enovapower.com](http://enovapower.com), prior to connection of the electrical service.

**Temporary Services:**

Temporary services, typically used for construction or trailer connection purposes and for a period of twelve (12) months or less, must be approved by the ESA. The owner of the service is required to have the service re-inspected by the ESA should the period of use exceed twelve (12) months.

**SCADA Communication and Monitoring Equipment:**

Provision for SCADA communication and monitoring equipment shall be inspected and approved by Enova Power against applicable Enova Power requirements.

**2.1.5 Relocation of Distribution Facilities**

When requested to relocate distribution facilities, Enova Power shall exercise its rights and discharge its obligations in accordance with existing legislation such as the Ontario Public Service Works on Highways Act (PSWHA), regulations, formal agreements, easements, and common law.

If during the operation, maintenance or upgrading of the Enova Power distribution system, Customer owned equipment is required to be operated or Customer owned conductors are required to be relocated or extended, Enova Power will not be responsible for failure of the Customer's conductors/equipment due to its condition or age. The repair / replacement of Customer owned equipment or the extending of Customer owned conductors will be at the Customer's expense.

**2.1.5.1 Relocation on Public Property, Customer Request**

Relocation of distribution facilities at the request of a Customer will be considered in a fair and reasonable manner using good utility practices. When Enova Power can relocate the facilities to the satisfaction of the requesting party, one hundred percent (100%) of costs associated with the relocation will be charged to the party requesting the relocation.

**2.1.5.2 Relocation on Public Property, Road Authority Request**

The cost for relocation of distribution facilities within a municipal right-of-way, at the request of a road authority and within five (5) years of the distribution facilities' date of installation, shall be one hundred percent (100%) payable by the road authority. Otherwise, Enova Power will follow the terms of the PSWHA.

Distribution facilities relocation projects involving change of infrastructure from overhead systems to underground systems within a municipal right-of-way shall be one hundred percent (100%) payable by the requesting party.

**2.1.5.3 Relocation on Private Property Covered by an Agreement**

When relocation of distribution facilities is requested from locations previously covered by an easement agreement, the easement agreement will determine the conditions and charge for the relocation. It shall be the responsibility of the requesting party to complete negotiations for required service connection modifications with all other impacted parties to the satisfaction of and at no cost to Enova Power.

#### **2.1.5.4 Relocation on Private Property Not Covered by an Agreement**

In the absence of existing agreements, Enova Power is not obligated to relocate distribution facilities. If relocation is feasible, the requesting party will be required to pay one hundred percent (100%) of the relocation costs and any other costs associated with the relocation. Where such relocation will require the replacement of the distribution facilities onto private property not owned by the requesting party, it shall be the responsibility of the requesting party to complete negotiations for easements and required service connection modifications with all other impacted parties to the satisfaction of and at no cost to Enova Power.

#### **2.1.6 Easements**

Easements are required whenever Enova Power's underground or overhead distribution facilities are to be located on private property or crosses over an adjacent private property to service a Customer other than the owner of that property. To maintain the reliability, integrity and efficiency of the distribution system, Enova Power has the right to have distribution facilities on private property registered against title to the property.

Easements may be requested by Enova Power at a subdivision's draft plan approval stage, site plan review application, zone change application, committee of adjustment, building permit application, request for service or any other appropriate stage in the site development process.

Prior to energization of the service, the Customer shall grant or obtain, at no cost to Enova Power, easements to permit installation and maintenance of service and distribution facilities and easements that may be required for the future electrical needs of the distribution system. The width and extent of these easements shall be determined by Enova Power and shall be granted by the Customer.

#### **Unregistered Rights:**

Section 46 of the Electricity Act, 1998, provides that all property that is subject to unregistered rights prior to April 1, 1999, will continue to be subject to the right until the right expires or until it is released by the holder of the right.

#### **2.1.7 Contracts**

Enova Power requires:

- Customers wanting to connect a new electricity service or upgrade their existing electricity service are required to execute an Offer to Connect.
- Customers wanting to service and connect a subdivision are required to execute a Residential Subdivision Servicing Agreement or a Commercial Subdivision Servicing Agreement.
- Enova Power requires all Embedded Distributors and Embedded Generation Facilities to execute a Connection Agreement.



#### **2.1.7.1 Contract for New or Modified Electricity Services**

Enova Power shall only connect a Building for a new or modified supply of electrical service upon receipt by Enova Power of the following:

- All requested information;
- A completed service request form or executed Offer to Connect;
- A completed and signed new account application form;
- Payment to Enova Power of any applicable connection charges;
- Receipt of a Connection Authorization from the ESA; and
- Other Conditions of Service as may apply to the requested connection.

#### **2.1.7.2 Implied Contract**

In all cases, notwithstanding the absence of a written contract, Enova Power has an implied contract with any Customer that is connected to Enova Power's distribution system and receives electricity and distribution services from Enova Power. The terms of the implied contract are consistent with these Conditions of Service, the OEB's Rate Handbook, Enova Power's rate schedules, Enova Power's licence and the DSC, as amended from time to time.

Any Customer or Customers who take or use electricity and distribution services from Enova Power shall be liable for payment for such. Any implied contract for the supply for electricity and distribution services by Enova Power shall be binding upon the heirs, administrators, executors or assigns of the Customer or Customers.

#### **2.1.7.3 Special Contracts**

Connections to Enova Power's electrical distribution system may at times require special contracts that define responsibilities related to operational control, special circumstances permitting a second supply, metering issues and arrangements to prevent paralleling of distribution feeders, etc.

Upon recognition of special circumstances Enova Power will notify the Customer of the requirement for a special contract to address concerns related to safety, reliability of supply and other relevant issues.

In certain circumstances, a connection and/or operating agreement may be required between Enova Power and the Customer. Enova Power will advise the Customer in advance of the connection if a special contract is required.

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

A Customer who wants to open or close an account for the supply of electricity and distribution services from Enova Power shall contact Enova Power by phone, by written request (including requests submitted by facsimile), or through Enova Power's website at [enovapower.com](http://enovapower.com).

The Customer shall be responsible for payment to Enova Power for the supply of electricity and distribution services until Enova Power receives notice of account closure from the Customer or other authorized representative.

## **2.2 Disconnection**

### **2.2.1 Authority to Disconnect**

Enova Power “may shut off the distribution of electricity to a property if any amount payable by a person for the distribution or retail of electricity to the property pursuant to Section 29 of the Electricity Act, 1998 is overdue” as per Section 31(1) of the Electricity Act, 1998.

### **2.2.2 Disconnection and Reconnection**

Bills are normally due no less than twenty (20) calendar days following the billing date. Due dates falling on a non-business date become payable on the first business date following the due date. Interest will apply to all overdue amounts as specified by the OEB.

Overdue amounts payable to Enova Power are subject to the collection process and may ultimately lead to the service being disconnected in accordance with OEB regulations. Enova Power shall provide reasonable notice of the proposed disconnection to the person who is responsible for the overdue amount by personal delivery, telephone, mail, or, by posting the notice in a conspicuous place on the Customer’s premise. Collection actions may commence on the next business day following the due date if an outstanding balance remains. These collection actions may include one or all of the following:

- The issuance of a reminder notice by telephone, electronic mail (e-mail) or regular mail seven (7) days prior to a disconnect notice;
- Delivery of disconnect notices (door hangers); or,
- A follow-up telephone call minimum 48 hours prior to the disconnection window start date.

Reasonable efforts will be made to establish direct contact with the Customer. Service will be restored once full payment has been made. Disconnection of service does not relieve the Customer of the liability of arrears. Reconnection charges will be applied to the Customer’s account. Reconnection charges are waived for an eligible low-income customer.

Enova Power may disconnect a service for emergency, safety, or system reliability reasons. Enova Power will notify the Customer to rectify the condition at once. In case the Customer fails to make satisfactory arrangements to remedy the condition Enova Power may commence the disconnection process immediately. The service may be disconnected and not restored until satisfactory arrangements to remedy the condition have been made.

Enova Power shall assume no risk or liability for any damages resulting from, arising out of, or related to the disconnection of electrical service for safety or operational reasons in accordance with Section 30 of the Electricity Act, 1998 and Section 4.2 of the DSC.

Enova Power shall assume no risk or liability for any damages resulting from, arising out of, or related to the disconnection of electrical service for any overdue amounts payable to Enova Power in accordance with Section 31 of the Electricity Act, 1998 and Section 4.2 of the DSC.

Upon receipt of a Disconnection request by the Customer, Enova Power will disconnect and/or remove Enova Power's connection assets at the Customer's cost.

### **2.2.3 Operational**

Enova Power, may consider disconnection of a service for any one of the following:

- Any conditions as listed in Section 2.1.3 of this document;
- Power theft, diversion, fraud, or abuse on the part of the Customer;
- Unauthorized usage or generation;
- When the identification and pertinent account information of the Customers or Consumers responsible for electricity usage at the premise have not been confirmed to Enova Power;
- If no valid account holder is provided;
- Electrical disturbance propagation caused by Customer equipment that is not corrected in a timely fashion; and,
- Inaccessibility to Enova Power equipment for either: installing, inspecting, operating, replacing, removing, or maintaining, including reading the meter.

Such service disconnections may not be reconnected until the Customer rectifies the condition and provides full payment to Enova Power including all costs incurred by Enova Power arising from the disconnection, including inspections, repair costs, and the cost of disconnection and reconnection.

## **2.3 Conveyance of Electricity**

### **2.3.1 Limitations on the Guaranty of Supply**

Enova Power will endeavour to use reasonable diligence in providing a regular and uninterrupted supply but does not guarantee a constant supply or the maintenance of unvaried frequency or voltage and will not be liable 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 to provide their own back-up or standby facilities. Customers may require

special protective equipment on their premises to minimize the effect of momentary power interruptions.

Customers requiring a three-phase supply shall install protective apparatus to avoid damage to their equipment caused by the interruption of one phase, or non-simultaneous switching of phases on Enova Power's distribution system.

Enova Power is not liable for damages to Customer equipment due to Force Majeure or variations in voltage or poor power quality from external forces such as operating contingencies, exceptionally high loads and low voltage supply from the transmitter or host distributor.

## **2.3.2 Power Quality and Service Interruption**

### **2.3.2.1 Power Quality**

In response to a Customer's power quality concern, where the utilization of electric power affects the performance of electrical equipment, Enova Power will verify the power supply at the Customer's service entrance.

Enova Power provides short term monitoring of Voltage Fluctuations, Tingle Voltage and Ground Fault identification at a Customer's service entrance. The results of this monitoring will determine the impact of the power quality issue, whether the voltage is within the guidelines outlined in this document, and take necessary corrective action, if any.

#### **Standards:**

Enova Power typically operates the distribution system to maintain a continuous supply of electrical energy within the industry standards of the Canadian Standards Association Preferred Voltage Levels for AC Systems (CSA CAN3-C235 latest edition) and Institute of Electrical and Electronics Engineers Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems (IEEE 519-latest edition).

#### **Monitoring and Investigating:**

Monitoring of the Customer's service will be done at the discretion of and for periods determined by Enova Power.

Enova Power will not be liable under any circumstances whatsoever for any loss of profits or revenues, business interruption losses, loss of goodwill or for any indirect, consequential, incidental, or special damages as a result of activities required for the monitoring or investigation of these complaints.

#### **Mitigation:**

When the characteristics of the power supplied to a customer do not meet industry standards and the cause is determined to be the responsibility of Enova Power, appropriate action will be taken to correct the problem. The timeliness of the correction will be dependent on the type of problem and communicated to the affected Customers.

When the characteristics of the power supplied do not meet industry standards and the cause is determined to be the Customer's responsibility, the offending Customer is required to correct the problem. The timeliness of the correction will be dependent on the type of problem and be solely at the Customers expense. Enova Power may require that any Customer problem that adversely affects the distribution system be corrected immediately. If the situation is not corrected, Enova Power may disconnect the Customer in accordance with our disconnection policy.

**Stray or Tingle Voltage:**

For stray voltage complaints Customer's are required to complete a stray voltage investigation request form found on Enova Power's website at [enovapower.com/forms](http://enovapower.com/forms) to initiate a stray voltage investigation with Enova Power. Appropriate Enova Power testing procedures and requirements identified in Appendix H of the DSC will be applied to stray voltage investigation request.

**2.3.2.2 Service Interruption**

**Unplanned Power Interruptions:**

Enova Power will endeavour to notify Customers prior to interrupting the supply to any service. However, if an unsafe or hazardous condition is found to exist, or if the use of electricity by apparatus, appliances, or other equipment is found to be unsafe or damaging to Enova Power or to the public, or in response to a shortage of supply, service may be discontinued without notice.

Enova Power provides a 24-hour emergency service for the restoration of electrical power and mitigation of common, supply side, electrical disturbances such as no power, part power, voltage flicker and potential electrical shock hazards.

**Planned Power Interruptions:**

Planned interruptions are occasionally necessary for the enhancement or maintenance of the distribution system. Enova Power will endeavour to provide Customers with reasonable notice of planned interruptions. Failure to provide, or receive, notice of a planned power interruption assesses no responsibility to Enova Power for any consequences of the power interruption.

Whenever practical and cost effective, as determined by Enova Power, arrangements suitable to the Customer and Enova Power will be made to minimize any inconvenience.

For supply interruptions to a single property, not initiated by Enova Power, it shall be the responsibility of the requesting party to notify every single party on the property of the date and the duration of the interruption.

Customers who require an uninterrupted source of power for medical related equipment must provide their own back up equipment.

### **Outage Reporting:**

Depending on the outage, duration, and the number of Customers affected, Enova Power may issue a news release and/or messages on social media to advise the general public of the outage and to provide updates on restoration efforts. In turn, news organizations may call for information when they hear of an outage.

Customers should report outages to Enova Power by calling the contact number listed in Section 1.5 of this document. Enova Power maintains public outage maps on its website at [enovapower.com](http://enovapower.com).

### **2.3.3 Electrical Disturbances**

Voltage fluctuation and other disturbances can cause flickering lights and other serious difficulties for Customers connected to Enova Power's distribution system. Customers must ensure that their equipment does not cause any disturbances such as harmonics and transients that might interfere with the operation of adjacent Customer equipment. Equipment that may cause disturbance includes large motors, welders, and variable speed drives etc. In planning the installation of such equipment, the Customer must consult with Enova Power.

Customers must take and use power at all times in such manner that the ratio of the kW to the kVA, when measured simultaneously at the point of delivery for power, is as near unity as practicable. Enova Power may require a Customer to operate at or above the specified power factor limit or be responsible for the costs that Enova Power incurs in meeting the required limit at the station when the Independent Electricity System Operator (IESO) has issued directives that require adherence to a specific PF limit, such as 0.95 PF at a transformer station. The Customer will continue to pay for the costs until the specified power factor limit is met.

Where a three phase power supply is required, Customers must take and use power so the current is taken from the three phases equally as much as possible. If at any time the unbalance in current is greater than 10% or in Enova Power's opinion excessive, the Customer must make at its own expense, upon request, the changes necessary to reduce the unbalance to an acceptable value.

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 foundations, switchgear foundations, transformer rooms, switchgear rooms, electrical rooms, service entrances, etc. Enova Power will assist in attempting to resolve any such difficulties at the Customer's expense.

Customers who may require an uninterrupted source of power supply or supply completely free from fluctuations and disturbances must provide their own power backup and/or conditioning equipment for these purposes.

### 2.3.4 Standard Voltage Offerings

Voltages offered by Enova Power for service connections are as follows:

#### Secondary Voltages:

- 120/240 V, Single Phase
- 120/208 V, Three Phase
- 347/600 V, Three Phase
- 125/216 V, Single Phase\*
- 125/216 V, Three Phase\*

\*Only available in the City of Kitchener Downtown Network. See Section 3 of this document for more details, and Appendix E to identify the boundaries of this area.

#### Primary Voltages:

- 8 kV, single phase
- 16 kV, single phase
- 13.8 kV, three phase
- 27.6 kV, three phase

Certain areas in Enova Power's service area are serviced from a legacy 8.32/4.8 kV primary voltage distribution system. Enova Power is in the process of converting this legacy primary voltage distribution system to a 27.6/16 kV primary voltage distribution system. All Customers currently connected to the legacy 8.32/4.8kV primary voltage distribution system is required to design for the new 27.6/16 kV primary voltage distribution system, when a new service is connected, or an existing service is upgraded.

### 2.3.5 Voltage Guidelines

Enova Power will exercise due diligence in maintaining the service voltage at the Customer's service entrance or point of demarcation within the guidelines of the latest version of CSA CAN3-C235. This standard defines normal operating voltages to be within  $\pm 5\%$  of nominal voltage. Periodic extreme operating voltages can be within  $\pm 8\%$  of nominal voltage.

Where the voltages consistently lie outside the indicated limits for normal operating conditions, improvements or corrective action will be taken by Enova Power on a planned and programmed basis.

Where voltages consistently lie outside the indicated limits for extreme operating conditions, improvements or corrective action will be taken by Enova Power as soon as possible. The urgency for such action will depend on many factors such as the location

and nature of the load, the circuits involved and the extent to which limits are exceeded with respect to voltage levels and duration, etc.

### **2.3.6 Emergency Backup Generation Facility**

Customers with portable or permanently connected Emergency Backup Generation Facility shall ensure compliance with all applicable rules of the OESC, and in particular, preventing back feed on the supply authority's system.

Customers considering installing a closed-transition switch shall notify Enova Power and shall submit a protection study that satisfies Enova Power technical requirements. The Customer shall obtain a written approval from Enova Power prior to operation of the switch in closed transition mode. Closed-transition switches must not parallel the Emergency Backup Generation Facility with Enova Power distribution system for longer than 100 milliseconds (ms) under any circumstances.

Customers with permanently connected Emergency Backup Generation Facility equipment shall notify Enova Power regarding the presence of such equipment and shall enter into such agreements as may be requested, or required, under this document.

Customers with portable Emergency Backup Generation Facility equipment may connect it to an Enova Power approved meter base plug-in transfer device. Customers must initially contact Enova Power to begin the connection process for the meter base plug-in transfer device. For certain adapters, Customers are required to have applicable waivers with Enova Power prior to installation of these adapters. The installation of a meter base plug-in transfer device is not permitted where a Customer location that utilizes its Emergency Backup Generation Facility as an Embedded Generation Facility.

Enova Power will consider Emergency Backup Generation Facility installations which do not conform to the OESC as sufficient reason for service disconnection as stated in Section 2.2 of this document.

### **2.3.7 Metering**

#### **2.3.7.1 General Responsibilities**

##### **Enova Power:**

Complete metering requirements are listed in the Distribution System Code and Enova Power's Metering Specifications document that is on Enova Power's website at [www.enovapower.com](http://www.enovapower.com). It is the Customer's responsibility to ensure that they are familiar with the latest versions of these documents. Enova Power shall supply and maintain revenue meters, instrument transformers, interconnecting wiring, ancillary devices, secondary wiring, seals, and other related equipment for revenue metering and associated services in a timely manner and in compliance with applicable legislation, Enova Power's Metering Specifications, and these Conditions of Service.



**Customer:**

The Customer must provide a convenient and safe location for Enova Power to install meters, conductors, and ancillary equipment. The area allocated by the Customer for commercial metering installations shall be located on the main floor of the building and provide direct access from outside unless otherwise agreed to by Enova Power. Meters for new or upgraded residential services will be mounted outdoors on a meter socket approved by Enova Power.

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

Any compartments, cabinets, boxes, sockets, or other workspace provided for the installation of Enova Power's metering equipment shall be for the exclusive use of Enova Power, and no person, except those authorized by Enova Power, may remove, connect, or otherwise interfere with meters, conductors, or ancillary equipment.

**2.3.7.2 Access to Revenue Meters**

Enova shall have access to Customer property to install, read, and maintain its metering equipment in accordance with these requirements and Section 40 of the Electricity Act.

The Customer must provide or arrange free, safe, and unobstructed access to any authorized representative of Enova Power for meter reading, changing, or inspection during regular business hours.

Where premises are closed during Enova's regular business hours, the Customer must, on reasonable notice, arrange such access during Enova's regular business hours.

**2.3.7.3 Interval Metering**

All services with annual average monthly peak loads of 50 kW or larger are required to have interval metering. At the discretion of Enova Power, interval metering may be required for loads under this threshold. Prior to the installation of an interval meter by Enova Power, the Customer must make satisfactory arrangements with Enova Power to accommodate the interval metering, including Customer provided and maintained auxiliary power supply.

Existing Customers that do not meet the 50kW peak load threshold and request interval metering shall compensate Enova Power for all incremental costs associated with the interval metering installation, including the capital cost of the interval meter, ongoing maintenance (including allowance for meter failure), verification and re-verification of the meter, and the stranded asset cost of the redundant metering.

Before installing an interval meter, the Customer must make satisfactory arrangements with Enova Power to accommodate the interval metering installation and shall comply with the technical requirements outlined in Enova Power's Metering Specifications that is on Enova Power's website at [enovapower.com](http://enovapower.com), including customer-provided auxiliary power and communications circuits.

#### **2.3.7.4 Meter Reading, Inspections, and Maintenance**

During regular business hours, the property owner must provide safe and unobstructed access to Enova Power staff for obtaining meter readings and performing inspections and maintenance. Requests to complete metering work outside Enova Power's regular scheduled hours shall be billed to the requesting party on a cost-recovery basis.

#### **2.3.7.5 Transferring Accounts and Final Meter Reading**

When the responsibility for the electrical energy payment is to be transferred to another party or the service is no longer required, a final meter reading is necessary for account reconciliation. Enova Power will make every reasonable attempt to obtain this reading on the date specified by the vacating party. If a final meter reading is not obtained, the final bill will be calculated using estimated electrical energy and/or demand readings based on the Customer's historical usage. The disconnection or continuation of electrical service will depend on the following:

- With written confirmation from the property owner or their agent, the electrical service will not be disconnected, and all electricity charges after the final reading will be the property owner's responsibility.
- With written confirmation from the property owner or their agent, the electrical service will be disconnected until a service contract is completed to reconnect the electrical service.
- If a New Account Application has not been executed at the time of the final reading, notification will be mailed or hand-delivered to the property for the owner/occupant to contact the offices of Enova Power immediately.
- If no written direction has been received from the owner/occupant in the timeline specified by Enova Power, the service will be scheduled for disconnection.

#### **2.3.7.6 Faulty Registration of Meters**

Metering electricity usage to generate a billable amount is governed by the federal Electricity and Gas Inspection Act and associated regulations under the jurisdiction of Measurement Canada, a division of Industry Canada. Enova Power's revenue meters are required to comply with the accuracy specifications established by the regulations under the above Act.

In the event of incorrect electricity usage registration, Enova Power will determine the correction factors based on the specific cause of the metering error and the Customer's electricity usage history. Enova Power will correct the bills for that period in accordance with the regulations under the Electricity and Gas Inspection Act.

Enova Power shall reimburse the Customer for any over-collection of charges based on the estimated energy supplied. The Customer shall reimburse Enova Power for any under-collection of costs based on the estimated energy supplied.

Billing errors will be calculated using the actual rates in place during the time of the error.

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, Enova Power will correct the bills for that period in accordance with the regulations under Section 7.7 of the RSC.

#### **2.3.7.7 Meter Dispute Testing**

The Customer may request Enova Power to check the accuracy of the metering installation and report the results to the Customer. A Meter Dispute Charge plus applicable Measurement Canada fees will be applied to the Customer's account if the meter reading is found to be correct.

If the Customer remains unsatisfied, Measurement Canada will be contacted to resolve the metering dispute. If the meter is found to be accurate, the Customer will be required to pay for the costs incurred by Enova Power during the dispute resolution process, including any costs levied by Measurement Canada.

Enova Power's meter dispute charge, as approved by the OEB, can be found on Enova Power's website at [enovapower.com](http://enovapower.com).

#### **2.3.7.8 Multiple Customer Metering Systems**

##### **Multi-Unit Residential Rental Buildings and Condominiums:**

Developers of new multi-unit residential rental buildings and condominiums (collectively, "MURBs"), or condo boards or directors of condominiums, or authorized persons in charge of any other applicable class of unit under Ontario Regulation 389/10, may choose to have Enova Power install unit smart metering, or to have Enova Power install a bulk interval meter to enable unit sub-metering by a licensed unit sub-meter provider.

##### **Installation of Unit Smart Metering by Enova Power:**

Upon the request of a MURB developer, building owner or a condominium board, Enova Power will install unit smart metering that meets the functional specification of Ontario Regulation 425/06 – Criteria and Requirements for Meters and Metering Equipment, Systems and Technology (smart metering). In that case, each residential and commercial unit and common area will become direct individual customers of Enova Power, with the common area accounts held by the developer, Condominium Corporation, or the landlord, as the case may be. The MURB developer, building owner or condominium board shall be responsible for all material and labour costs to install a

multiple customer metering system, minus the basic connection allowance for each eligible new residential service in the building – see Section 3.1 of this document.

**Common Area Metering:**

Where units in a MURB are to be suite metered, the responsible party (MURB developer, condominium board of directors, or landlord) shall enter a contract with Enova Power to supply electrical energy for all common or shared services. Common areas or shared services typically include the lighting of the common areas and services such as heating, air conditioning, water heating, elevators, and shared laundry facilities. In such cases, consumption for all common areas will be separately metered.

**Installation of Bulk Interval Metering by Enova Power:**

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

**Multi-Unit General Service:**

When the units in multiple unit building(s) do not meet the criteria of a residential service as defined in Section 3.1 of this document, the building will be serviced as a general service as defined in Section 3.2 of this document.

## **2.4 Tariffs and Charges**

Enova Power is the billing and collection agent for the electricity distribution services it provides as well as the energy supply provided through a standard service supply or retailer supply – see Section 2.4.2 of this document for more details.

### **2.4.1 Distribution Services**

Enova Power requires that all customers who connect to Enova Power's distribution system complete a New Account Application, prior to service connection. This Application forms a contract between Enova Power and the Customer for the supply of electrical energy.

**New Account Application:**

Customers requesting service with Enova Power will be required to:

1. Complete a New Account Application which forms a legal and binding contract between the Customer and Enova Power;
2. Provide one piece of appropriate identification;
3. Provide their date of birth;
4. Complete all relevant sections of an "Application for Service Connection or Upgrade" package; and,
5. If required, complete all necessary agreements, and provide all required deposits relating to expansion and connection to Enova Power distribution facilities.

Charges for distribution services are set out in the Schedule of Rates available from Enova Power and as posted on Enova Power's website at [enovapower.com](http://enovapower.com). Enova Power will notify Customers of changes to distribution rates on or with the first billing issued after the effective date.

All service connection requirements applicable to the Standard Service Supply Customers are applicable to third party retailers' Customers as there are no physical service connection differences between Standard Service Supply Customers and third-party retailers' Customers. Both Customers' energy supplies are delivered through the local Distributor with the same distribution requirements.

## **2.4.2 Energy Supply**

### **2.4.2.1 Standard Service Supply**

All existing Enova Power customers are Standard Service Supply customers until Enova Power is informed of their switch to a competitive electricity supplier.

### **2.4.2.2 Retailer Supply**

Customers transferring from or to Standard Service Supply to or from a competitive retailer shall comply with the Service Transfer Request requirements as outlined in Sections 10.3 through 10.5.6 of the RSC.

All requests shall be submitted to Enova Power electronically. These Service Transfer Requests shall contain information as set out in Section 10.3 of the RSC. If the information is incomplete, Enova Power shall notify the retailer or the Customer about the specific deficiencies and await a reply before proceeding to process the transfer.

### **2.4.2.3 Wheeling of Energy**

All Customers considering delivery of electricity through the Enova Power distribution system are required to contact Enova Power for technical requirements and applicable tariffs.

## **2.4.3 Deposits**

All security deposit requirements are in accordance with Section 2.4 of the DSC and Section 8 of the RSC.

The form of payment of a security deposit for all Customers shall be cash, cheque, power bonds, or an automatically renewing, irrevocable letter of credit from a bank as defined in the Bank Act, 1991, c.46. Credit card payments can be made through an online bill payment system on Enova Power's website at [enovapower.com](http://enovapower.com), with a convenience fee applicable for this service.

All services disconnected for non-payment are subject to a security deposit charge.

Security deposits will be returned to the Customer based on the following:

- The establishment of a good payment history – see Section 2.4.3.3 of this document for residential Customers and section 2.4.3.4 of this document for all other Customer classes,
- A Customer switching to retailer-consolidated billing,
- Termination of Service.

#### **2.4.3.1 Deposit Amount**

The maximum amount of a security deposit which Enova Power may require a Customer to pay, shall be calculated in the following manner:

Billing cycle factor multiplied by the estimated bill based on the Customer's average monthly load with Enova Power during the most recent 12 consecutive months within the past two years. Where relevant usage information is not available for the Customer for 12 consecutive months within the past two years, Enova Power shall base the Customer's average monthly load on a reasonable estimate.

The billing cycle factor is 2.5 for a Customer who is billed monthly.

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

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

Service may be withheld for non-payment of the security deposit.

The following customers are exempt from Account Security Deposits:

- Banks and Credit Unions.
- Trust Companies (Trust Company Real Estate Offices are not exempt)
- Government Agencies including City, Region, Provincial and Federal Offices including Liquor Control Board of Ontario stores.

- A deposit is not required if a customer provides a letter of reference from a gas or electric distributor in Canada confirming a "Good Payment History" for the relevant time period as stated for each rate class
  - Residential Customers: 12 months
  - Non-Residential Customers less than 50 kW demand rate class: 3 years
  - Non-Residential Customers 50 kW or greater demand rate class and Large Use Customers greater than 5,000 kW demand: 7 years
- For all rate classes some of the time period making up the "Good Payment History" must be within the previous 24 months.
- A deposit is not required if a Customer, other than a Customer in the greater than 5,000 kW demand rate class, provides a satisfactory credit check at the Customer's expense.
- An eligible low-income Customer has requested a waiver under Section 2.4.11.1 of the DSC.

#### **2.4.3.2 Billing Options and Deposits**

##### **Retailer Consolidated Billing:**

Under this option, Enova Power will not issue a bill to a Customer. The Retailer is responsible for issuing the bill to the Customer and the Retailer is responsible for Customer non-payment risk. Under this billing option, Enova Power would not require a security deposit from the Customer.

If Enova Power is in possession of a Customer's security deposit at the time of a switch to retailer consolidated billing, the security deposit, plus any accrued interest, shall be applied to the final bill, issued by Enova Power. Any excess amount shall be returned to the Customer. The Customer is still responsible to Enova Power for the payment of any outstanding balances on their account following the application of the security deposit to their final bill.

##### **Distributor Consolidated Billing:**

Under this option, Enova Power will be responsible for issuing a bill to the Customer and will be responsible for Customer non-payment risk. Enova Power may impose a security deposit depending upon our assessment of the Customer's potential risk of non-payment.

##### **Split Billing:**

Under this option, Enova Power and a Retailer will each issue a bill to the Customer. As such, Enova Power and a Retailer shall each be responsible for Customer non-payment risks for the bills that each issue to the Customer. If a Customer already has a security deposit with Enova Power, a portion of the security deposit that reflects the non-payment risk associated with the new billing option will be retained by Enova Power. Any excess security deposit amount will be returned to the Customer.

### **Standard Service Supply:**

Under this option, Enova Power will continue to be responsible for issuing a bill to the Customer and will continue to be responsible for Customer non-payment risk. Enova Power may impose an amount of security deposit depending upon our assessment of the Customer's potential risk of non-payment.

#### **2.4.3.3 Residential Deposits**

Residential Customers will be required to pay a security deposit. A security deposit may be waived subject to the following:

- Good payment history of one (1) year with Enova Power, another electricity distributor or gas distributor in Canada;
- A satisfactory credit check provided to Enova Power at the Customer's expense;
- Signing up for the Pre-Authorized Payment program for a minimum period of 12 months; or,
- Monthly Equal Payment Plan for a minimum period of 12 months.

A Customer is deemed to have a good payment history unless within the most recent 12 month period:

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

#### **2.4.3.4 Non-Residential Security Deposits**

Non-residential Customers will be required to pay a security deposit. A security deposit may be waived subject to the following:

- a) Non-residential Customers in a less than 50kW demand rate class
  - Good payment history of three (3) years with Enova Power;
  - Proof of a good payment history of (3) three with another electricity distributor or gas distributor in Canada; or,
  - Credit check satisfactory to Enova Power. The cost of the credit check shall be at the expense of the Customer.
- b) Non-residential Customers in any other rate class
  - Good payment history of seven (7) years with Enova Power;
  - Proof of a good payment history of seven (7) years with another electricity distributor or gas distributor in Canada; or,
  - Credit check satisfactory to Enova Power. The cost of the credit check shall be at the expense of the Customer. A Customer in a greater than 5,000 kW demand rate class cannot use a credit check.



For non-residential Customers over 5,000 kW who have maintained a good payment history for three (3) years, Enova Power will refund 50% of the deposit. To obtain a higher refund of the deposit, the Customer must obtain a credit rating agency report from Dominion Bond Rating Service (DBRS), Standard & Poor's (S&P) or Moody's. A credit rating replaces good payment history, and the refund amount will depend on the individual rating in accordance with the table below:

<b><i>Credit Rating (Using S&amp;P Rating Terminology)</i></b>	<b><i>Allowable Reduction in Security Deposit</i></b>
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%

A non-residential Customer is deemed to have a good payment history unless:

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

#### **2.4.4 Billing Cycle/Classification**

Enova Power will issue bills to its Customers on a monthly basis. Other billing frequency intervals may apply, depending on the specific Customer, Enova Power or OEB requirements. Bills for the use of electrical energy may be based on either a metered rate or a flat rate, as determined by Enova Power.

Rate classification review shall be done on an annual basis with a provision for one interim Customer initiated classification review using the average demand for a period of 5 consecutive months.

Customers will be provided with at least one billing cycle's notice before any changes are made to their existing rate classification.

For new Customers without prior billing history, the average monthly peak demand will be based on a demand calculated by Enova Power of up to 80% of the proposed service capacity.

The Customer may dispute charges shown on the Customer's bill or other matters by contacting and advising Enova Power. Section 1.8 of this document provides further information on the Enova Power dispute resolution process.

## 2.4.5 Payments and Late Payment Charges

Bills are payable in full by the due date; otherwise, daily interest charges shall be applied to overdue accounts.

Late payment charges are accrued daily at 1.5% per month on balances unpaid after the due date.

### Acceptable Forms of Payment:

#### Cash:

- Enova Power will accept any cash payment in Canadian or United States of America denominations up to a one hundred dollar note. US dollars are taken at par with Canadian dollars.
- Enova Power will accept cash denominations to a limit of one hundred of each denomination.
- Enova Power reserves the right to refuse damaged or incomplete notes.
- Coins will be accepted in accordance with the Currency Act, which outlines the following limitations:
  - (a) forty dollars if the denomination is two dollars or greater but does not exceed ten dollars;
  - (b) twenty-five dollars if the denomination is one dollar;
  - (c) ten dollars if the denomination is ten cents or greater but less than one dollar; and,
  - (d) five dollars if the denomination is five cents.

#### Cheques:

- Only cheques addressed to Enova Power will be accepted.
- Cheques in US funds are acceptable. Prior to posting the cheque, Enova Power's bank is contacted, and the funds are converted to Canadian dollars which are then applied to the account.
- No other foreign funds are accepted.
- Any cheques that are returned for insufficient funds will be subject to a "Returned Cheque" fee in accordance with our currently effective Rate Order.

#### Debit:

- Enova Power can process debit card transactions at their office location or at the Customer's location in the event of a Disconnect/Collection Trip.

#### Credit Card:

- Enova Power does not accept credit cards directly. To make payment with a credit card, Customers can make use of an online bill payment system available on Enova Power's website at [www.enovapower.com](http://www.enovapower.com). A convenience fee is applied to the Customer for use of this service.
- Enova Power will accept credit card payments at the Customer's location in the event of a Disconnect/Collection Trip.

## 2.5 Customer Information

A third party who is not a retailer may request historical usage information with the written authorization of the Customer to provide their historical usage information for 24 billing periods unless the Customer has been connected to our system for a lesser period of time.

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

Upon receiving an inquiry from a Customer connected to its distribution system, Enova Power will either respond to the inquiry if it deals with its own distribution services or provide the Customer with contact information for the entity responsible for the item of inquiry, in accordance with applicable sections, including Sections 7 and 11, of the RSC.

An Embedded Distributor that receives electricity from Enova Power shall provide load forecasts or any other information related to the Embedded Distributor's system load to Enova Power, as determined by Enova Power. A Distributor shall not require any information from another Distributor unless it is required for the safe and reliable operation of either Distributor's distribution system or to meet a Distributor's licence obligations.

Enova Power is committed to keeping the information of its Customers accurate, confidential, secure, and private. Enova Power shall not use or disclose personal information for purposes other than those for which it was collected, unless consent is given by the individual, or, as required by law. Enova Power has developed a corporate privacy policy that governs the collection, use and protection of personal information.

## **Section 3 – Customer Class Specific**

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## 3.0 General Information

### General Service Requirements:

- Enova Power must receive a completed service request form from the Customer or their representative. When the completed application is received by Enova Power, Enova Power will prepare a service layout indicating the specific requirements for service connection. These requirements will include the meter location, point of attachment to Enova Power's distribution system, and the estimated connection charge.
- There must be no outstanding conditions as stated in Section 2.1.3 of this document prior to service connection.
- The Customer may be required to supply a Security Deposit to be held by Enova Power subject to the conditions stated in Section 2.4.3 of this document.
- Civic address identification must be clearly and permanently displayed on the front of the building prior to the connection of the service.
- The Customer must arrange for inspection by the ESA to obtain an ESA Connection Authorization permit.
- When the mixed-use property (i.e. containing residential and commercial units) requiring electricity is supplied by a single metered service, the metered service shall be classified by Enova Power as a general service account.

### Additional Service Requirements for Overhead Installations:

- Enova Power will typically provide one overhead transformer per property. Where Customers require multiple transformers on the property that Enova Power cannot accommodate, then the Customer will be responsible for all transformation on site and must install a suitable pole for the connection of primary voltage metering equipment.
- When a Central Metering Service stack is used, the combined rating of all the Customer's service equipment shall not exceed 600 A.
- When a transformation is required on private property, the Customer is responsible to supply and install an overhead primary voltage pole line or an underground primary voltage conductor from the demarcation point to the transformer all in compliance with the OESC.

### Additional Service Requirements for Underground Installations:

- The Customer will be responsible for supplying secondary voltage conductor termination materials, if transformation will be located on private property. The materials must be approved by Enova Power.
- The concrete foundation to install the pad-mounted transformer must meet Enova Power construction standards.
- The Customer is responsible for excavating, maintaining, and backfilling a trench on private property to Enova Power construction standards. This trench will accommodate either a dedicated duct conduit or a concrete encased duct bank

for housing Enova Power service conductors. The size, type, and location of the duct conduit must meet Enova Power construction standards as indicated in the service layout.

### **Additional Service Requirements for City of Kitchener Downtown Network:**

- Enova Power has an underground 125/216 V secondary voltage network system that operates in the City of Kitchener downtown core area (“City of Kitchener Downtown Network”). See Appendix E to identify the boundaries of this area.
- Connections requiring power less than 300 kW in the proximity of the City of Kitchener Downtown Network may be supplied from it. The right is reserved by Enova Power to revise the 300 kW threshold depending on economic and engineering considerations, with respect to the distribution facilities in the area.
- When transformers are required to be installed to supply the project, the developer must supply space satisfactory to Enova Power, within the development for the power transformers, as well as the necessary duct system from the transformer area to the distribution facilities on the municipal right-of-way.
- Where the main service entrance equipment exceeds 800 A rating the developer must supply a bus stub connection into the power transformer area.
- The metering of the project may be bulk or individual at the discretion of the developer. The location for the metering equipment will be subject to the approval of Enova Power.

### **Services per Property:**

In general, the Customer will be supplied at one service voltage at one ownership demarcation point to any property. Properties with multiple buildings requiring an electrical service shall be supplied by an underground looped supply arrangement. Enova Power reserves the right to require that an underground looped supply be completed for system needs. Service conductors may enter or exit via a different route on the property.

### **Ownership Demarcation Points:**

Enova Power will respect demarcation points that exist due to past supply agreements with any of the Enova Power’s predecessor companies. Where this is the case, the demarcation point agreed to in the corresponding supply agreement is considered valid and will be grandfathered until such time that an upgrade or new service is requested. If a corresponding supply agreement is not available, Enova Power’s records shall govern.

For new or upgraded services, the demarcation points as set out in Appendix B of this document shall prevail. Only one main secondary disconnect per transformer that is located on private property will be installed at the discretion of Enova Power for all service entrance capacities.

**Metering Location Requirements:**

Refer to Enova Power's Metering Specifications document that is on Enova Power's website at [enovapower.com](http://enovapower.com).

**Civil Infrastructure to Support Enova Power Equipment:**

- **Transformer Rooms:** Transformer rooms, when required, must be constructed in accordance with Enova Power specifications and the OBC. Transformer rooms must be at grade level and have the doors open to an area accessible to Enova Power vehicles with a suitable roadway. Enova Power is responsible for the maintenance and repairs of the transformers and wiring owned by the utility but not the transformer room(s) or any other structure that forms part or is part of the Customer's building.
- **Transformer Enclosures:** Transformer enclosures, when required, must be constructed in accordance with Enova Power specifications. Transformer enclosures must be in an area accessible to our vehicles with a suitable roadway. Enova Power is responsible for the maintenance and repairs of the transformers and wiring owned by the utility but not the transformer enclosure(s) or any other structure that forms part or is part of the Customer's structure or building.
- **Transformer Foundations:** Pre-cast concrete foundations for three-phase pad-mount transformers, when required, must be supplied and installed in accordance with Enova Power specifications. Enova Power will supply and deliver the foundations to the Customer's site at the Customer's expense. The transformers are to be located such that it meets sufficient working space as per Enova Power construction standards. Transformers must be located adjacent to an asphalt or gravel driveway for access and protected from vehicular traffic. Enova Power is responsible for maintenance and repairs of the transformers and wiring owned by the utility but not the foundation or other structures that form part of the installation.
- **Switchgear Rooms:** Switchgear rooms, when required, must be constructed in accordance with Enova Power specifications and the requirements of the OBC. Switchgear rooms must be at grade level and have the doors open to an area accessible to Enova Power vehicles with a suitable roadway. Enova Power is responsible for the maintenance and repairs of the high-voltage switches, fuse cabinets, and wiring owned by the utility but not the Switchgear rooms or any other structure that forms part or is part of the Customer's building.
- **Switchgear Foundations:** Switchgear foundations and covers for below grade and above grade switchgear equipment must be supplied and installed in accordance with Enova Power specifications. The switchgear shall be located adjacent to a driveway or parking lot for access and such that it meets sufficient working space as per Enova Power construction standards. Switchgear foundations shall be protected from vehicular traffic. Enova Power is responsible for maintenance and repairs of the submersible switchgear, protective devices and wiring owned by the utility, but not the foundation and cover or other structures that form part of the installation.

## **3.1 Residential Service**

### **3.1.1 Definition**

A service supplied to a single-family dwelling unit for domestic or household purposes shall be rate classed as a residential service. This includes services to detached homes, semi-detached homes, townhomes, or individually metered residential units in a multi-unit and/or multi-tenant development. Street fronting, semi-detached residential buildings and residential freehold townhouses will be connected as individual residential services upon confirmation of an undertaking to sever the property. Where service is supplied to a combined residence and business (including agricultural usage) the service classification shall be general service – see Section 3.2 of this document.

### **3.1.2 Connection**

#### **3.1.2.1 Connection Charge**

Residential service Customers are entitled to a basic connection allowance that is payable by Enova Power and a variable connection charge which is payable by the Customer. The basic connection allowance is applicable to new service connections only. All existing services have previously benefitted from the basic connection allowance during the time of connection.

The basic connection allowance includes the following components:

- a) One utility designed layout;
- b) The supply and installation of transformation to accommodate a 120/240 V, 200 A service, or an equivalent credit;
- c) Up to 30 meters of overhead secondary, 200 A rated service conductor on the Customer's property, and one set of connectors on each end, or an equivalent credit; and,
- d) One 240 V, 200 A, revenue meter.

The variable connection charge is based on the actual connection cost over and above the basic connection allowance noted above.

When residential service connections are constructed as part of a new residential subdivision development, the development will be considered an expansion and serviced through a Residential Subdivision Servicing Agreement - see Section 2.1.2.3 of this document. Each residential service in the new residential subdivision development will be eligible for the basic connection allowance.

When a residential service connection is requested where no distribution facilities exist and is not part of a new residential subdivision development, an expansion to the distribution system will be required - see Section 2.1.2 of this document.



Connection charges are to be paid for by the Customer prior to the commencement of any service connection work by Enova Power.

### **Customer Requested Service Connection Relocations:**

Relocation of existing Enova Power assets such as metering equipment, service conductors, transformers or poles will require that a location suitable to Enova Power is available. A service layout will be prepared indicating relocation requirements and an estimated cost associated with the relocation. In new residential subdivision developments, relocations of the proposed meter location and/or service trench identified by the Customer prior to connection must be approved by Enova Power. All associated costs, including easement(s), engineering, civil and electrical works, and required service connection modifications to all other impacted parties will be the responsibility of the requesting party.

#### **3.1.2.2 Service Connection Upgrade**

When a Customer requires the main disconnecting device of an existing service to be increased, Enova Power will evaluate the adequacy of the existing service conductors and transformation and install new conductors and /or transformation to connect the upgraded service in accordance with this document.

Enova Power may require the meter base locations to be brought up to current standards at the time of service upgrades, at the Customer's cost. These costs include but are not limited to:

- Existing connections to rear lot lines where provisions have been made at the front/road side of property. Rear lot line connections are being eliminated due to hazards and maintenance issues they pose. See Appendix C of this document, and Enova Power's website at [enovapower.com](http://enovapower.com), for areas in Enova Power service area where planned service upgrades must be relocated;
- Municipality requests due to municipal right-of-way modifications;
- Adjacent property service upgrades or modifications;
- Relocating inside meters to outside; or,
- Relocating meters in backyards to side yards.

All associated costs, including easement(s), engineering, civil and electrical works, and required service connection modifications to all other impacted parties will be the responsibility of the requesting party. The requesting party will qualify for an equivalent credit for the supply and installation of Enova Power supplied transformation.

### **3.1.3 Supply**

#### **3.1.3.1 Service Not Requiring Transformation on Private Property**

Service connections will be limited to the following secondary voltages and maximum sizes:

- 120/240 V, single phase, 400 A
- 125/216 V, single phase, 200 A. Only available from City of Kitchener Downtown Network.

### 3.1.3.2 Service Requiring Transformation on Private Property

Enova Power offers residential service Customers the option of having transformation installed directly on private property.

#### Transformation Owned by Enova Power:

Enova Power provides transformation with the following primary and secondary voltage configurations as specified in the table below.

Primary Voltage	Secondary Voltage
27.6 kV	240/120V (single phase)
13.8 kV	240/120V (single phase)

In areas supplied by primary voltages other than those in the table above, proposed connections will be evaluated and system connection limitations provided on a case by case basis.

Transformation will be pad-mounted, or pole-mounted depending on the project requirements and the configuration of Enova Power's distribution system at the point of supply.

#### Customer Owned Transformer Requirements:

Customers may choose to supply and install their own transformation in accordance with the OESC. Additionally, transformation requirements that involve larger or more transformers than what Enova Power can provide are the responsibility of the Customer.

- All Customer owned transformers must meet the latest revision of CSA Standard C802.1 for energy efficiency. It is recommended that Customers' transformers have voltage taps in their primary voltage windings. (Four (4) full rated taps: -5%, -2 ½%, 0, +2½%, +5%).
- When a Customer elects to install their own transformer, the installation must meet the OESC and a Connection Authorization must be issued by the ESA prior to commissioning of the Customer's equipment.
- Enova Power will specify the primary voltage required for connection, as well as the transformer winding configuration.

- Enova Power will install secondary voltage metering when the secondary voltage is consistent with those supplied by the utility and the Customer is installing only one transformer.
- Information required about Customer owned transformer installations for Enova Power approval include:
  - Transformer specifications.
  - A site plan of the transformer showing the equipment layout.
  - A complete protection co-ordination study of the transformer.

### **3.1.3.3 Fault Current**

Short circuit ratings for secondary voltage equipment (rated less than 750 V) are available upon request to Enova Power. In certain areas, there may be higher-than-average maximum available fault current levels. The Customer is required to install secondary voltage equipment that can handle these elevated fault current levels, as specified on the service layout.

The City of Kitchener Downtown Network has a nominal fault current rating of 200,000 Sym. Amperes RMS. The Customer must ensure that properly rated electrical service equipment is used in the service installation.

### **3.1.4 Connection to a Building that Lies Along**

#### **3.1.4.1 Overhead Connection**

The Customer is responsible for the installation of all equipment and devices required to support Enova Power service conductors. These supporting equipment and devices are subject to the OESC and must be inspected and approved by the ESA prior to service energization. The location of customer owned poles that connect to Enova Power conductors or equipment will be determined by Enova Power and indicated on a service layout prior to their installation.

The following table summarizes the ownership and maintenance responsibilities associated with each type of connection configuration:

Configuration	Enova Power	Customer
Overhead Service Not Requiring Transformation on Private Property	<ul style="list-style-type: none"> <li>• Secondary voltage conductors to the demarcation point.</li> <li>• Terminations to the Customer's secondary voltage conductors.</li> <li>• Metering devices.</li> <li>• Tree trimming around Enova Power owned conductors.</li> </ul>	<ul style="list-style-type: none"> <li>• All secondary voltage attachments and installations.</li> <li>• Meter base and conduit.</li> <li>• All poles on private property.</li> <li>• Landscaping on private property.</li> <li>• Tree trimming around customer owned conductors</li> </ul>
Overhead Service Requiring Utility Owned Overhead Transformation on Private Property	<ul style="list-style-type: none"> <li>• First span of primary voltage conductors to the demarcation point.</li> <li>• Terminations to the Customer's primary voltage conductors.</li> <li>• Primary voltage disconnect and protective devices (fuse and surge arrester).</li> <li>• Power transformer.</li> <li>• Transformer terminations.</li> <li>• Metering devices.</li> <li>• Tree trimming around Enova Power owned conductors.</li> </ul>	<ul style="list-style-type: none"> <li>• All other primary voltage or secondary voltage conductors and terminations.</li> <li>• All poles on private property.</li> <li>• Transformer grounding.</li> <li>• Meter base and conduit.</li> <li>• Landscaping on private property.</li> <li>• Tree trimming around customer owned conductors.</li> </ul>
Overhead Service Requiring Utility Owned Underground Transformation on Private Property	<ul style="list-style-type: none"> <li>• First span of primary voltage conductors to the demarcation point.</li> <li>• Terminations to the Customer's primary voltage conductors.</li> <li>• Primary voltage disconnect and protective devices (fuse and surge arrester).</li> <li>• Power transformer.</li> <li>• Transformer terminations.</li> <li>• Metering devices.</li> <li>• Tree trimming around Enova Power owned conductors.</li> </ul>	<ul style="list-style-type: none"> <li>• All other primary voltage or secondary voltage conductors and terminations.</li> <li>• All poles on private property.</li> <li>• Transformer grounding.</li> <li>• Transformer room, enclosure, or foundation.</li> <li>• Meter base and conduit.</li> <li>• Duct conduits or concrete encased duct structure on private property.</li> <li>• Trench and landscaping on private property.</li> <li>• Tree trimming around customer owned conductors.</li> </ul>

Configuration	Enova Power	Customer
Overhead Service Requiring Customer Owned Transformation on Private Property	<ul style="list-style-type: none"> <li>• First span of primary voltage conductors to the demarcation point.</li> <li>• Terminations to the Customer's primary voltage conductors.</li> <li>• Metering devices.</li> <li>• Tree trimming around Enova Power owned conductors.</li> </ul>	<ul style="list-style-type: none"> <li>• All other primary voltage or secondary voltage conductors and terminations.</li> <li>• All poles on private property.</li> <li>• Primary voltage, ESA-approved load-break device.</li> <li>• Primary voltage protective devices (fuse and surge arrester).</li> <li>• Power transformer.</li> <li>• Transformer grounding.</li> <li>• Transformer enclosure or foundation.</li> <li>• Meter base and conduit.</li> <li>• Duct conduits or concrete encased duct structure on private property.</li> <li>• Trench and landscaping on private property.</li> <li>• Tree trimming around customer owned conductors.</li> </ul>

### 3.1.4.2 Underground Connection

The Customer is responsible for the installation of all equipment and devices required to support Enova Power service conductors. Additionally, the Customer is responsible for the provision of a service trench/conduit for the installation of Enova Power service conductors on private property. The location of the service trench/conduit will be determined by Enova Power and indicated on a service layout prior to installation.

The following table summarizes the ownership and maintenance responsibilities associated with each type of connection configuration:

Configuration	Enova Power	Customer
Underground Service Not Requiring Transformation on Private Property	<ul style="list-style-type: none"> <li>• Secondary voltage conductors to the demarcation point.</li> <li>• Termination of secondary voltage conductors to line side of meter base.</li> </ul>	<ul style="list-style-type: none"> <li>• All secondary voltage attachments and installations.</li> <li>• Meter base and conduit.</li> </ul>

Configuration	Enova Power	Customer
	<ul style="list-style-type: none"> <li>• Duct conduit or concrete encased duct structure in municipal right-of-way.</li> <li>• Metering devices.</li> </ul>	<ul style="list-style-type: none"> <li>• Duct conduit or concrete encased duct structure on private property.</li> <li>• Trench and landscaping on private property.</li> </ul>
Underground Service Requiring Utility Owned Overhead Transformation on Private Property	<ul style="list-style-type: none"> <li>• Primary voltage conductors.</li> <li>• All primary voltage pole riser hardware.</li> <li>• Primary voltage disconnect and protective devices (fuse and surge arrester).</li> <li>• Power transformer.</li> <li>• Switchgear.</li> <li>• Transformer / switchgear terminations.</li> <li>• Duct conduit or concrete encased duct structure in municipal right-of-way.</li> <li>• Metering devices.</li> </ul>	<ul style="list-style-type: none"> <li>• All secondary voltage conductors and terminations.</li> <li>• All poles on private property.</li> <li>• Transformer / switchgear grounding.</li> <li>• Switchgear room or foundation.</li> <li>• Meter base and conduit.</li> <li>• Duct conduits or concrete encased duct structure on private property.</li> <li>• Trench and landscaping on private property.</li> <li>• Tree trimming around customer owned conductors.</li> </ul>
Underground Service Requiring Utility Owned Underground Transformation on Private Property	<ul style="list-style-type: none"> <li>• Primary voltage conductors.</li> <li>• All primary voltage pole riser hardware.</li> <li>• Primary voltage disconnect and protective devices (fuse and surge arrester).</li> <li>• Power transformer.</li> <li>• Switchgear.</li> <li>• Transformer / switchgear terminations.</li> <li>• Duct conduit or concrete encased duct structure in municipal right-of-way.</li> <li>• Metering devices.</li> </ul>	<ul style="list-style-type: none"> <li>• All secondary voltage conductors and terminations.</li> <li>• Transformer / switchgear grounding.</li> <li>• Transformer / switchgear enclosure, or foundation.</li> <li>• Meter base and conduit.</li> <li>• Duct conduits or concrete encased duct structure on private property.</li> <li>• Trench and landscaping on private property.</li> </ul>
Underground Service Requiring Customer Owned Transformation on Private Property	<ul style="list-style-type: none"> <li>• Primary voltage conductors to the demarcation point.</li> <li>• Termination of primary voltage conductors on line side of primary voltage,</li> </ul>	<ul style="list-style-type: none"> <li>• All other primary voltage or secondary voltage conductors and terminations.</li> <li>• All poles on private property.</li> </ul>

Configuration	Enova Power	Customer
	ESA-approved load-break device. <ul style="list-style-type: none"> <li>• All primary voltage pole riser hardware in municipal right-of-way.</li> <li>• Switchgear.</li> <li>• Metering devices.</li> <li>• Duct conduit or concrete encased duct structure in municipal right-of-way.</li> </ul>	<ul style="list-style-type: none"> <li>• Primary voltage, ESA-approved load-break device.</li> <li>• Primary voltage protective devices (fuse and surge arrester).</li> <li>• Power transformer.</li> <li>• Transformer / switchgear grounding.</li> <li>• Transformer / switchgear enclosure, or foundation.</li> <li>• Meter base and conduit.</li> <li>• Duct conduits or concrete encased duct structure on private property.</li> <li>• Trench and landscaping on private property.</li> <li>• Tree trimming around customer owned conductors.</li> </ul>

### 3.1.4.3 City of Kitchener Downtown Network Connections

The Customer is responsible for the installation of all equipment and devices required to support Enova Power service conductors. Additionally, the Customer is responsible for the provision of a concrete encased duct bank structure for the installation of Enova Power service conductors on private property. The location of the concrete encased duct bank structure will be determined by Enova Power and indicated on a service layout prior to installation.

The following table summarizes the ownership and maintenance responsibilities associated with each type of connection configuration:

Configuration	Enova Power	Customer
Underground Service from City of Kitchener Downtown Network	<ul style="list-style-type: none"> <li>• Secondary voltage conductors to the demarcation point.</li> <li>• Concrete encased duct bank structure in the municipal right-of-way.</li> <li>• Metering devices.</li> <li>• Termination of secondary voltage conductors to the line side of the Customer's main disconnecting device.</li> </ul>	<ul style="list-style-type: none"> <li>• Main disconnecting device.</li> <li>• Meter base and cabinet.</li> <li>• Concrete encased duct bank structure on private property.</li> <li>• Trench and landscaping on private property</li> </ul>

## 3.2 General Service

### 3.2.1 Definition

A Customer's account will be classified as general service when the Customer does not qualify as a residential service. In general, multi-unit and/or multi-tenant residential developments will be serviced as general service. However, at the request of a building owner or condominium corporation, Enova Power will provide individual suite metering for each unit and/or tenant of the building. When the building owner elects this option each residential unit and/or tenant will be rate classed as a residential service – see Section 3.1 of this document. All other units in the building and common area meters, etc., will be rate classed as general service.

Unmetered connections are classified as general service and are connected in accordance with the conditions set out in Section 3.8 of this document.

### 3.2.2 Connection

#### 3.2.2.1 Connection Charge

The Customer is responsible for all connection costs under general service. Where Enova Power supplied transformation forms part of the connection, Enova Power will supply the transformer and be responsible for its cost. Connection costs include labour, equipment, and materials associated with the connection including but not limited to lines, taps, fuses, switches, primary and secondary voltage conductor/terminations, and metering equipment.

Enova Power will prepare an estimate of the charges to the Customer and include this estimated amount with the Offer to Connect. The Customer may provide a deposit equal to the estimated charges, thereby accepting the Offer to Connect.

When general service connections are constructed as part of a new commercial subdivision development, the development will be considered an expansion and



serviced through a Commercial Subdivision Servicing Agreement - see Section 2.1.2.4 of this document.

When a general service connection is requested where no distribution facilities exist and is not part of a new commercial subdivision development, an expansion to the distribution system will be required - see Section 2.1.2 of this document.

Connection charges are to be paid for by the Customer prior to the commencement of any service connection work by Enova Power crews. Additionally, a deposit may be required for any service connections that require substantial design work or procurement of site specific and/or long lead-time materials (such as large transformers or switchgears) to support the service connection.

**Customer Requested Service Connection Relocations:**

Relocation of existing Enova Power assets such as metering equipment, service conductors, transformers or poles will require that a location suitable to Enova Power is available. A service layout will be prepared indicating relocation requirements and an estimated cost associated with the relocation. In new commercial subdivision developments, relocations of the proposed meter location and/or service trench identified by the Customer prior to connection must be approved by Enova Power. All associated costs, including easement(s), engineering, civil and electrical works, and required service connection modifications to all other impacted parties will be the responsibility of the requesting party.

**3.2.2.2 Service Connection Upgrade**

When a Customer requires the main disconnecting device of an existing service to be increased, Enova Power will evaluate the adequacy of the existing service conductors and transformation and install new conductors and /or transformation to connect the upgraded service in accordance with this document.

Due to limited room for installing new distribution system equipment on public or private properties, not all secondary voltages are available in certain areas of the Enova Power service area. These areas are identified in Appendix D of this document. The costs of required upgrades or modifications, including modifications to adjacent properties, shall be at the Customer's expense to support the connection to the new secondary voltage level.

All associated costs, including easement(s), engineering, civil and electrical works, and required service connection modifications to all other impacted parties will be the responsibility of the requesting party. The requesting party will qualify for an equivalent credit for the supply and installation of Enova Power supplied transformation.

### 3.2.3 Supply

#### 3.2.3.1 Service Not Requiring Transformation on Private Property

Service connections will be limited to the following secondary voltages and maximum sizes:

- 120/240 V, single phase, 600 A
- 347/600 V, three phase, 400 A
- 120/208 V, three phase, 800 A
- 125/216 V, single phase, 200 A. Only available from City of Kitchener Downtown Network.
- 125/216 V, three phase, 800 A. Only available from City of Kitchener Downtown Network.

#### 3.2.3.2 Service Requiring Transformation on Private Property

Enova Power offers general service Customers the option of having transformation installed directly on private property.

##### Transformation Owned by Enova Power:

Enova Power will supply transformation up to the limits specified in the table below. In all cases, these limits may be revised due to specific system or connection constraints or for other reasons and are at the sole discretion of Enova Power.

Primary Voltage	Secondary Voltage	Maximum Transformer Size Supplied by Enova Power	Maximum Total Transformation Supplied by Enova Power
27.6 kV	600/347V (three phase)	1,500 kVA	5,000 kVA
13.8 kV	600/347V (three phase)	1,500 kVA	2,500 kVA
27.6 kV	208/120V (three phase)	500 kVA	5,000 kVA
13.8 kV	208/120V (three phase)	500 kVA	2,500 kVA
27.6 or 13.8 kV	240/120V (single phase)	167 kVA	835 kVA

In areas supplied by primary voltages other than those in the table above, proposed connections will be evaluated and system connection limitations provided on a case by case basis.

Transformation will be room types, pad-mounted, or pole-mounted depending on the project requirements and the configuration of Enova Power's distribution system at the

point of supply. In general, service sizes larger than 400 A will be supplied from pad-mounted or room-type transformers.

Multiple service voltages will not be provided. For a property requiring more than one transformer, an underground looped supply will be provided by Enova Power at the Customer's expense. This may include additional primary voltage conductor and associated switching equipment. Unless extenuating circumstances exist, no more than five (5) transformers will be provided by Enova Power per individual property.

**Customer Owned Transformer Requirements:**

Customers may choose to supply and install their own transformation in accordance with the OESC. Additionally, transformation requirements that involve larger or more transformers than what Enova Power can provide are the responsibility of the Customer.

- All Customer owned transformers must meet the latest revision of CSA Standard C802.1 for energy efficiency. It is recommended that Customers' transformers have voltage taps in their primary voltage windings. (Four (4) full rated taps: - 5%, -2 ½%, 0, +2½%, +5%).
- When a Customer elects to install their own transformer, the installation must meet the OESC and a Connection Authorization must be issued by the ESA prior to commissioning of the Customer's equipment.
- Enova Power will specify the primary voltage required for connection, as well as the transformer winding configuration.
- Enova Power will install secondary voltage metering when the secondary voltage is consistent with those supplied by the utility and the Customer is installing only one transformer.
- Information required about Customer owned transformer installations for Enova Power approval include:
  - Transformer specifications.
  - A site plan of the transformer showing the equipment layout.
  - A complete protection co-ordination study of the transformer.

**3.2.3.3 Fault Current**

All Customer owned primary voltage protection equipment (rated 750 V and above) shall meet the following requirements in the table below:

Nominal System Voltage	Maximum Three Phase Short Circuit MVA (Sym. Amperes RMS)	Maximum Line to Ground Short Circuit Amperes
13.8/8 kV	500 (20,919)	10,000*
27.6/16 kV	835 (17,467)	12,000

\*Certain areas of Enova Power’s 13.8/8 kV distribution system in the City of Waterloo experience high single line to ground short circuit current, up to a maximum of 19,000 A. Short circuit ratings for customer-owned primary voltage equipment are available upon request to Enova Power.

Short circuit ratings for secondary voltage equipment (rated less than 750 V) are available upon request to Enova Power. In certain areas, there may be higher-than-average maximum available fault current levels. The Customer is required to install secondary voltage equipment that can handle these elevated fault current levels, as specified on the service layout.

The City of Kitchener Downtown Network has a nominal fault current rating of 200,000 Sym. Amperes RMS. The Customer must ensure that properly rated electrical service equipment is used in the service installation.

### 3.2.4 Connection to a Building that Lies Along

#### 3.2.4.1 Overhead Connection

The Customer is responsible for the installation of all equipment and devices required to support Enova Power service conductors. These supports and devices are subject to the OESC and must be inspected and approved prior to service connection. The location of poles that connect to Enova Power conductors or equipment will be determined by Enova Power and indicated on a service layout prior to their installation.

When required, Enova Power will provide isolation of the primary voltage supply to allow the Customer to work safely on their primary voltage conductors. Enova Power must approve all secondary conductor used for interface with our power transformers.

The following table summarizes the ownership and maintenance responsibilities associated with each type of connection configuration:

Configuration	Enova Power	Customer
Overhead Service Not Requiring Transformation on Private Property	<ul style="list-style-type: none"> <li>• Secondary voltage conductors to the demarcation point.</li> <li>• Terminations to the Customer’s secondary voltage conductors.</li> <li>• Metering devices.</li> <li>• Tree trimming around Enova Power owned conductors.</li> </ul>	<ul style="list-style-type: none"> <li>• All secondary voltage attachments and installations.</li> <li>• Meter base and cabinet.</li> <li>• All poles on private property.</li> <li>• Landscaping on private property.</li> <li>• Tree trimming around customer owned conductors.</li> </ul>

Configuration	Enova Power	Customer
Overhead Service Requiring Utility Owned Overhead Transformation on Private Property	<ul style="list-style-type: none"> <li>• First span of primary voltage conductors to the demarcation point.</li> <li>• Terminations to the Customer's primary voltage conductors.</li> <li>• Primary voltage disconnect and protective devices (fuse and surge arrester).</li> <li>• Power transformer.</li> <li>• Transformer terminations.</li> <li>• Metering devices.</li> <li>• Tree trimming around Enova Power owned conductors.</li> </ul>	<ul style="list-style-type: none"> <li>• All other primary voltage or secondary voltage conductors and terminations.</li> <li>• All poles on private property.</li> <li>• Transformer grounding.</li> <li>• Meter base and cabinet.</li> <li>• Landscaping on private property.</li> <li>• Tree trimming around customer owned conductors.</li> </ul>
Overhead Service Requiring Utility Owned Underground Transformation on Private Property	<ul style="list-style-type: none"> <li>• First span of primary voltage conductors to the demarcation point.</li> <li>• Terminations to the Customer's primary voltage conductors.</li> <li>• Primary voltage disconnect and protective devices (fuse and surge arrester).</li> <li>• Power transformer.</li> <li>• Transformer terminations.</li> <li>• Metering devices.</li> <li>• Tree trimming around Enova Power owned conductors.</li> </ul>	<ul style="list-style-type: none"> <li>• All other primary voltage or secondary voltage conductors and terminations.</li> <li>• All poles on private property.</li> <li>• Transformer grounding.</li> <li>• Transformer room, enclosure, or foundation.</li> <li>• Meter base and cabinet.</li> <li>• Duct conduits or concrete encased duct structure on private property.</li> <li>• Trench and landscaping on private property.</li> <li>• Tree trimming around customer owned conductors.</li> </ul>
Overhead Service Requiring Customer Owned Transformation on Private Property	<ul style="list-style-type: none"> <li>• First span of primary voltage conductors to the demarcation point.</li> <li>• Terminations to the Customer's primary voltage conductors.</li> <li>• Metering devices.</li> <li>• Tree trimming around Enova Power owned conductors.</li> </ul>	<ul style="list-style-type: none"> <li>• All other primary voltage or secondary voltage conductors and terminations.</li> <li>• All poles on private property.</li> <li>• Primary voltage, ESA-approved load-break device.</li> <li>• Primary voltage protective devices (fuse and surge arrester).</li> </ul>

Configuration	Enova Power	Customer
		<ul style="list-style-type: none"> <li>• Transformer grounding.</li> <li>• Transformer room, enclosure, or foundation.</li> <li>• Meter base and cabinet.</li> <li>• Duct conduits or concrete encased duct structure on private property.</li> <li>• Trench and landscaping on private property.</li> <li>• Tree trimming around customer owned conductors.</li> </ul>

### 3.2.4.2 Underground Connection

The Customer is responsible for the installation of all equipment and devices required to support Enova Power service conductors. Additionally, the Customer is responsible for the provision of a trench, conduit, and/or concrete encased duct bank structure for the installation of Enova Power service conductors on private property. The location of the trench, conduit and/or concrete encased duct bank structure will be determined by Enova Power and indicated on a service layout prior to installation.

When required, Enova Power will provide isolation of the primary voltage supply to allow the Customer to work safely on their primary voltage conductors. Enova Power must approve all secondary conductor used for interface with our power transformers.

The following table summarizes the ownership and maintenance responsibilities associated with each type of connection configuration:

Configuration	Enova Power	Customer
Underground Service Not Requiring Transformation on Private Property	<ul style="list-style-type: none"> <li>• Secondary voltage conductors to the demarcation point.</li> <li>• Termination of secondary voltage conductors to line side of the Customer’s main disconnecting device OR termination to the Customer’s secondary voltage conductors at Enova Power’s hydro pole.</li> <li>• Duct conduit or concrete encased duct structure in</li> </ul>	<ul style="list-style-type: none"> <li>• Main disconnecting device.</li> <li>• All secondary voltage attachments and installations.</li> <li>• Meter base and cabinet.</li> <li>• Duct conduit or concrete encased duct structure on private property.</li> <li>• Duct conduit or concrete encased duct structure in municipal right-of-way, riser conduit and weather head (F-Head), if demarcation</li> </ul>

Configuration	Enova Power	Customer
	<p>municipal right-of-way if demarcation is at the line side of the Customer's main disconnecting device.</p> <ul style="list-style-type: none"> <li>• Metering devices.</li> </ul>	<p>point is at Enova Power's hydro pole.</p> <ul style="list-style-type: none"> <li>• Trench and landscaping on private property.</li> </ul>
<p>Underground Service Requiring Utility Owned Overhead Transformation on Private Property</p>	<ul style="list-style-type: none"> <li>• Primary voltage conductors.</li> <li>• All primary voltage pole riser hardware.</li> <li>• Primary voltage disconnect and protective devices (fuse and surge arrester).</li> <li>• Power transformer.</li> <li>• Switchgear.</li> <li>• Transformer / switchgear terminations.</li> <li>• Duct conduit or concrete encased duct structure in municipal right-of-way.</li> <li>• Metering devices.</li> </ul>	<ul style="list-style-type: none"> <li>• All secondary voltage conductors and terminations.</li> <li>• All poles on private property.</li> <li>• Transformer / switchgear grounding.</li> <li>• Switchgear room or foundation.</li> <li>• Meter base and cabinet.</li> <li>• Duct conduits or concrete encased duct structure on private property.</li> <li>• Trench and landscaping on private property.</li> <li>• Tree trimming around customer owned conductors.</li> </ul>
<p>Underground Service Requiring Utility Owned Underground Transformation on Private Property</p>	<ul style="list-style-type: none"> <li>• Primary voltage conductors.</li> <li>• All primary voltage pole riser hardware.</li> <li>• Primary voltage disconnect and protective devices (fuse and surge arrester).</li> <li>• Power transformer.</li> <li>• Switchgear.</li> <li>• Transformer / switchgear terminations.</li> <li>• Duct conduit or concrete encased duct structure in municipal right-of-way.</li> <li>• Metering devices.</li> </ul>	<ul style="list-style-type: none"> <li>• All secondary voltage conductors and terminations.</li> <li>• Transformer / switchgear grounding.</li> <li>• Transformer / switchgear room, enclosure, or foundation.</li> <li>• Meter base and cabinet.</li> <li>• Duct conduits or concrete encased duct structure on private property.</li> <li>• Trench and landscaping on private property.</li> </ul>
<p>Underground Service Requiring Customer Owned Transformation on Private Property</p>	<ul style="list-style-type: none"> <li>• Primary voltage conductors to the demarcation point.</li> <li>• Termination of primary voltage conductors on line side of primary voltage, ESA-approved load-break device.</li> </ul>	<ul style="list-style-type: none"> <li>• All other primary voltage or secondary voltage conductors and terminations.</li> <li>• All poles on private property.</li> </ul>

Configuration	Enova Power	Customer
	<ul style="list-style-type: none"> <li>• All primary voltage pole riser hardware in municipal right-of-way.</li> <li>• Switchgear.</li> <li>• Metering devices.</li> <li>• Duct conduit or concrete encased duct structure in municipal right-of-way.</li> </ul>	<ul style="list-style-type: none"> <li>• Primary voltage, ESA-approved load-break device.</li> <li>• Primary voltage protective devices (fuse and surge arrester).</li> <li>• Power transformer.</li> <li>• Transformer / switchgear grounding.</li> <li>• Transformer / switchgear room, enclosure, or foundation.</li> <li>• Meter base and cabinet.</li> <li>• Duct conduits or concrete encased duct structure on private property.</li> <li>• Trench and landscaping on private property.</li> <li>• Tree trimming around customer owned conductors.</li> </ul>

### 3.2.4.3 City of Kitchener Downtown Network Connections

The Customer is responsible for the installation of all equipment and devices required to support Enova Power service conductors. Additionally, the Customer is responsible for the provision of a concrete encased duct bank structure for the installation of Enova Power service conductors on private property. The location of the concrete encased duct bank structure will be determined by Enova Power and indicated on a service layout prior to installation.

The following table summarizes the ownership and maintenance responsibilities associated with each type of connection configuration:

Configuration	Enova Power	Customer
Underground Service from City of Kitchener Downtown Network	<ul style="list-style-type: none"> <li>• Secondary voltage conductors to the electrical demarcation point.</li> <li>• Concrete encased duct bank structure in the municipal right-of-way.</li> <li>• Metering devices.</li> <li>• Termination of secondary voltage conductors to the</li> </ul>	<ul style="list-style-type: none"> <li>• Main disconnecting device.</li> <li>• Meter base and attachments.</li> <li>• Concrete encased duct bank structure on private property.</li> <li>• Trench and landscaping on private property</li> </ul>



Configuration	Enova Power	Customer
	line side of the Customer's main disconnecting device.	

### 3.3 General Service (Above 50 kW)

Refers to general service Customers with an average monthly peak demand equal to or exceeding 50 kW but less than 5,000 kW, either currently or forecasted. The requirements outlined in Sections 3.0 and 3.2 are applicable.

### 3.4 Large Use Customers (5,000 kW and Above)

Individual customers whose monthly measured maximum demand (kW) averaged over the past 12 consecutive months equal to or exceeding 5,000 kW will be classified as Large Use Customers.

For installations of Customer-owned transformation equal to or exceeding 5,000 kVA, Enova Power will conduct a detailed engineering study to assess distribution system compatibility. The feasibility of connecting this load and associated costs will be provided to the customer in an Offer to Connect, as outlined in the DSC and this document.

When applicable, the Customer will also be responsible for the cost to expand Enova Power's distribution system, as outlined in Section 2.1.2.

### 3.5 Embedded Generation Facility

#### 3.5.1 General

This section applies to Embedded Generation Facilities from a renewable energy source and a non-renewable energy source.

Embedded Generation Facilities are categorized according to size as set forth in the OEB's Distributed Energy Resource Connections Procedure (DERCP) requirements for Micro, Small, Mid-Sized and Large Embedded Generation Facilities.

This section does not apply to the connection or operation of an Emergency Backup Generation Facility. See Section 2.3.5 of this document for the requirements of connecting or operating an Emergency Backup Generation Facility.

#### 3.5.2 Connection Process

Customers intending to connect an Embedded Generation Facility, whether in an exporting connection or a non-exporting connection, in parallel with the Enova Power distribution system shall follow:

- The process set out in the DERCP, including any forms necessary for the application;
- Administrative and technical requirements specified in the DERCP;
- Information regarding any approvals from the ESA, the IESO, OEB or a transmitter that are required before Enova Power will connect a generation facility to its distribution system;
- The technical requirements for being connected to the Enova Power distribution system including the metering requirements; and,
- The standard contractual terms and conditions for being connected to the Enova Power distribution system.

The connection and operation of a Customer's Embedded Generation Facility must not endanger workers or jeopardize public safety. In addition, distribution system reliability or power quality shall not be compromised as a result of the connection. The connection must not adversely affect or compromise equipment owned or operated by Enova Power, affect the security, efficiency or the quality of electrical supply of other Customers connected to Enova Power's distribution system. If such conditions are anticipated or identified, the Embedded Generation Facility must disconnect from Enova Power's distribution system. Reconnection will only be permitted once mitigation measures are implemented to Enova Power's satisfaction. If damage or increased operating costs result from a connection with an Embedded Generation Facility, Enova Power shall be reimbursed for these costs by the Customer.

### **3.5.3 Small, Mid-Size and Large Embedded Generation Facilities**

Enova Power requires all Customers wishing to connect small, mid-size and large Embedded Generation Facilities to its distribution system to execute a Connection Agreement in accordance with the DSC. Embedded Generation Facilities will be connected where technically feasible and without adverse impacts on Enova Power's distribution system. The cost sharing responsibilities of Enova Power and the Customer for the connection and related protections to ensure the safety of the public, employees and security of the system will be in accordance with the DSC.

When a small, mid-size or large Embedded Generation Facility is connected to Enova Power's distribution system, the Customer shall provide an interface protection system that minimizes the severity and extent of disturbances to Enova Power's distribution system and the impact on other Customers. The interface protection shall be capable of automatically isolating the Embedded Generation Facility from Enova Power's distribution system for the following situations:

- Internal faults within the Embedded Generation Facility;
- External faults on Enova Power's distribution system; and,

- Certain abnormal system conditions, such as over/under voltage, over/under frequency.

The Customer shall disconnect the Embedded Generation Facility from Enova Power's distribution system when:

- A remote trip or transfer trip is included in the interface protection; and,
- Enova Power or the Customer effects changes in the normal feeder arrangements other than those agreed upon in the Connection Agreement between Enova Power and the Customer.

### **3.5.4 Net Metering Program for an Embedded Generation Facility**

Enova Power supports eligible Customers wishing to participate in Ontario's Net Metering Program. Net Metering is available to any Enova Power customer who generates electricity primarily for their own use. The following conditions must be met to be deemed an eligible Customer in the Net Metering program:

- The electricity generated is primarily for the Customers own use;
- The electricity is generated solely from a renewable energy source such as wind, water, solar or agricultural biomass;
- The electricity generated is conveyed to the Customer's own consumption point without reliance on the Enova Power distribution system; and,
- The on-site energy storage facility installed by the Customer is allowed for the Net Metering program.

To participate in the Net Metering program, a Customer must contact Enova Power and meet:

- All requirements described in Section 3.5.2 of this document; and,
- Enova Power's policy for the Net Metering Program posted on Enova Power's website [enovapower.com](http://enovapower.com).

### **3.5.5 Gross Load Billing**

Gross-Load Billing may apply to Embedded Generation Facilities under certain circumstances. Gross-Load Billing demand includes not just a customer's net load, but typically any customer load served by behind-the-meter Embedded Generation Facilities larger than one (1) megawatt, or two (2) megawatts if from a renewable energy source.

### **3.5.6 Facilities Standby Charge (City of Kitchener and Township of Wilmot)**

The facilities standby charge will apply to an Embedded Generation Facility that operate in a load displacement arrangement that require Enova Power to provide standby power

in the event that the Embedded Generation Facility is offline. Under these circumstances, Enova Power is required to maintain sufficient capacity to supply the maximum demand of the host site being serviced.

Costs associated with reserving part of the distribution system to be ready to supply backup power to an Embedded Generation Facility will be recovered in the form of a facilities standby charge.

The facilities standby charge will be applied to the coincident peak load delivered by the Embedded Generation Facility on a per kilowatt basis and billed monthly. For facilities without an Embedded Generation Facility revenue meter, facility standby charge will be applied to the potential backup load (nameplate capacity of the Embedded Generation Facility) on a per kilowatt basis and billed monthly whether backup power is taken or not.

### **3.5.7 Metering for Generation**

A bi-directional revenue meter is required to record energy flow in both directions. For generating facilities with combined nameplate capacity in excess of 50kW, an additional revenue meter (Embedded Generation Facility meter) is required to be connected in series with the Embedded Generation Facility. See the latest version of Enova Power's Metering Specifications on Enova Power's website at [enovapower.com](http://enovapower.com) for more information.

## **3.6 Embedded Wholesale Market Participant**

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

All Embedded Wholesale Market Participants within the service area of Enova Power and approved by the IESO, are required to inform Enova Power of their status in writing 90 days prior to their participation in the Ontario electricity market. An Embedded Wholesale Market Participant shall enter into an Embedded Wholesale Market Participant Agreement in a form acceptable to Enova Power. Until such time as the Embedded Wholesale Market Participant executes such an agreement with Enova Power, the Embedded Wholesale Market Participant shall be deemed to have accepted and agreed to be bound by all the terms and conditions of any operating agreement and schedule delivered to the Embedded Wholesale Market Participant from time to time by Enova Power.

## **3.7 Embedded Distributor**

An Embedded Distributor is a licenced distributor who is provided with electricity by Enova Power.

All Embedded Distributors within the service area of Enova Power are required to inform Enova Power of their status in writing 90 days prior to the supply of energy from Enova Power. The terms and conditions applicable to the connection of an Embedded Distributor shall be included in the Embedded Distributor Agreement with Enova Power.

An Embedded Distributor shall enter into an agreement in a form acceptable to Enova Power. Until such time as the Embedded Distributor executes such an agreement with Enova Power, the Embedded Distributor shall be deemed to have accepted and agreed to be bound by all the terms and conditions of any operating agreement and schedule delivered to the Embedded Distributor from time to time by Enova Power.

### **3.8 Unmetered Connections**

Unmetered connections to Enova Power's distribution facilities are permitted at the sole discretion of Enova Power. Enova Power will determine the appropriate energy consumption and bill the Customer using the Unmetered Scattered Load rate class. All connection costs for the installation of unmetered services will be the responsibility of the Customer.

Unmetered connections are to be installed in accordance with this document and meet the requirements of the OESC.

Typical unmetered services include but are not limited to the following:

- Municipal Street Lighting;
- Walkway Lighting;
- Decorative Lighting;
- Traffic Signals;
- Bus Shelters;
- Communications Power Supplies; or
- Telephone Booths.

#### **3.8.1 Unmetered Load Customer Rights and Obligations**

Unmetered load customers have the following rights and obligations:

- The right to request information regarding estimated load and price data from Enova Power.
- The rights to request changes to information on file with respect to their unmetered load.
- An obligation to provide Enova Power with the load data required and evidence to support the estimated data before any connection to the distribution system is made.

### **3.8.2 Unmetered Load Connection and Data Update Process**

When Enova Power agrees to an unmetered load connection to its distribution system, the following applies:

#### **3.8.2.1 New Connection**

It is Enova Power's intention to meter all new service connections. In cases where loads are small and non-variable, Enova Power, at its sole discretion, may permit connection of the load without a meter. The Customer shall adhere to the general requirements specified in Section 3.0 of this document, excluding metering requirements. In addition, the Customer shall provide detailed manufacturer information and documentation with regard to electrical demand and expected hours of operation of the proposed unmetered load. Enova Power may require, at its sole discretion, that the Customer provides at their own cost a load study acceptable to Enova Power to determine energy consumption. The load study may be from a certified laboratory or in-field meter measurements. Where the Customer has previously conducted a load study for similar equipment with another distributor, Enova Power will consider accepting the results in lieu of further load study.

#### **3.8.2.2 Existing Connection**

The unmetered load customer has an obligation to notify Enova Power of any change to the unmetered load. The Customer shall notify Enova Power's Engineering Department prior to making any changes to existing equipment or adding new equipment that is supplied by the unmetered connection. The Customer shall provide detailed evidence and documentation to substantiate the requested changes. Enova Power may require at its sole discretion, that the Customer provides at its cost a load study acceptable to Enova Power to determine energy consumption. Where the Customer has previously conducted a load study for similar equipment with another distributor, Enova Power will consider accepting the results in lieu of further load study. Enova Power reserves the right to convert an unmetered load to a metered load if an update to the equipment results in the characteristics of the existing load being modified (e.g. from non-variable to variable).

After verifying the updated unmetered load data, Enova Power will revise the Customer billing data and communicate the changes to the Customer. Each billing period Enova Power will calculate the appropriate energy consumption based on the updated data that has been filed by the unmetered load customer. This will be calculated as the sum of the products of the quantity of each type of device multiplied by the agreed upon load attributed to such device. This calculated energy consumption will be used within Enova Power's billing system and have the appropriate rates applied as per the currently effective rate order as approved by the OEB.

Other changes that may impact unmetered load customers such as cost allocation studies will be communicated to the Customer in a timely manner via letter, email, Enova Power's website at [enovapower.com](http://enovapower.com), stakeholder sessions or bill insert.

### **3.8.3 Demarcation Points (Excluding Street Lighting)**

The Customer has ownership and maintenance responsibility for all equipment downstream of the demarcation point.

#### **Overhead:**

Where the Customer's attachments are on Enova Power's distribution poles or where the Customer's structure is supplied by an overhead service line, the demarcation point is the top of the Customer's service mast.

#### **Underground:**

Where the Customer's structure is supplied by an underground service conductor, the demarcation point is the Customer's disconnect switch at the Customer's structure.

### **3.8.4 Demarcation Points – Street Lighting**

The Customer has ownership and maintenance responsibility for all equipment downstream of the demarcation point.

#### **Overhead:**

Where the street light circuit is supplied from an overhead circuit, the demarcation points are at the line side of the service entrance disconnect switch, group-control relay, or at the in-line fuse connected to Enova Power's distribution system.

#### **Underground:**

Where the street light circuit is supplied from an underground circuit, the demarcation point is at the line side of the service entrance switch or at the transformer secondary terminals.

## **3.9 Pole Attachments**

Third Party Customers (including Canadian telecommunication carriers with conductor line and wireless components) wishing to attach to poles owned by Enova Power are required to apply in writing to Enova Power for authorization or approval – see Section 1.5 of this document for contact information.

The Customer will enter into an agreement with Enova Power prior to installing any customer-owned conductors or apparatus on poles or other equipment owned by Enova Power. Enova Power reserves the right to refuse attachments to its poles.

## **3.10 Temporary Service Connections**

Temporary service connections are to facilitate applications such as construction projects and outdoor shows and are limited to one supply connection per property.

All costs to connect and remove the temporary service must be provided in the form of a cash deposit before connection. The Offer to Connect will specify if the deposit is a firm price or an estimate which will be reconciled with the actual cost after the service is installed and a removal allowance applied to the final charge.

Temporary services are subject to the inspection procedures of the ESA. Any disconnection requested by the ESA will be done immediately with the Customer responsible for all costs incurred by Enova Power

Temporary service connections will be surveyed every 12 months. Should the service still be required after the 12-month period, Enova Power will charge the temporary service customer all costs associated with any extension granted.

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## **Section 4 – Glossary of Terms**

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“**Act**” means the Ontario Energy Board Act, 1998, S.O. 1998, C. 15, Schedule B;

“**Affiliate Relationships Code**” means the code, approved by the 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;

“**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;

“**basic connection allowance**” means a portion of a Customer’s service connection, the cost of which, Enova Power will not charge the Customer, but rather, will recover through its revenue requirement, as specified in the Distribution System Code, Sections 3.1.4 and 3.1.5. Section 3 of this document contains the specific basic connection allowance that Enova Power will provide to its Customers;

“**Board**” means the Ontario Energy Board;

“**Central Metering Service**” means a metering installation where instrument transformers are installed on the supply side of customer disconnects;

“**Conditions of Service**” means the document developed by Enova Power in accordance with subsection 2.4 of the Distribution Systems Code that describes the operating practices and connection rules for the distributor;

“**connection**” means the process of installing and activating connection assets in order to distribute electricity to a customer;

“**Connection Agreement**” means an agreement entered into between a distributor and a person connected to its distribution system that delineates the conditions of the connection and delivery of electricity to that connection;

“**connection assets**” means that portion of the distribution system used to connect a customer to the existing main distribution system, and consists of the assets between the point of connection on a distributor’s main distribution system and the ownership demarcation point with that customer;

“**consumer**” means a person who uses, for the person’s own consumption, electricity that the person did not generate;

“**Centralized Service Provider**” or “**CSP**” means the provider engaged by the Board to administer the OESP on the Board’s behalf;

“**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 subdivisions. For the purposes of section 3 of the DSC (except section 3.3), an embedded distributor is deemed to be a customer;

“**demarcation point**” this point is the demarcation of responsibility for ownership, repair and maintenance of electrical equipment and civil infrastructure used to service the property;

“**disconnection**” means a deactivation of connection assets that results in cessation of distribution services to a consumer;

“**disconnect/collection trip**” is a visit to a customer's premises by an employee or agent of Enova Power to demand payment of an outstanding amount, or to shut off or limit distribution of electricity to the Customer failing payment;

“**distribute**”, with respect to electricity, means to convey electricity at voltages of 50 kilovolts or less;

“**Distributed Energy Resources Connection Procedures**” or “**DERCP**” means the document referred to in section 6.2 of the 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;

“**distribution services**” means services related to the distribution of electricity and the services the Board has required distributors to carry out;

“**distribution system**” means a system for distributing electricity, and includes any structures, equipment or other things used for that purpose. A distribution system is comprised of the main system capable of distributing electricity to many customers and the connection assets used to connect a customer to the main distribution system;

“**Distribution System Code**” or “**DSC**” means the code, approved by the Board, and in effect at the relevant time, which, among other things, establishes the obligations of a distributor with respect to the services and terms of service to be offered to customers and retailers and provides minimum technical operating standards of distribution systems;

“**distributor**” means a person who owns or operates a distribution system;

“**distributor consolidated billing**” means Enova Power will issue a bill to a Retailer Customer under this billing option. Enova Power is responsible for customer non-payment risk;

“**Electricity Act**” means the *Electricity Act, 1998*, S.O. 1998, c.15, Schedule A;

“**Electrical Safety Authority**” or “**ESA**” means the person or body designated under the *Electricity Act* regulations as the Electrical Safety Authority;

**“Electrical Vehicle Charging Connection Procedures”** or **“EVCCP”** is a consolidation of procedures, timelines, workflows, and template forms issued by the Ontario Energy Board. Collectively, they are intended to streamline the process for connecting public charging facilities that commonly service multiple Electric Vehicles (EVs) for non-residential use. The provisions of the EVCCP are given force by requirements of Chapter 6 of the DSC;

**“eligible low-income customer”** means: (a) a residential electricity consumer who has been approved by the CSP for the OESP; or (b) a residential electricity consumer who has been approved by a LEAP Intake Agency for Emergency Financial Assistance;

**“Embedded Distributor”** means a distributor that is provided electricity by a host distributor. In this document, an embedded distributor may or may not be a Wholesale Market Participant;

**“Embedded Generation Facility”** means a generation facility which is not directly connected to the IESO-controlled grid but instead is connected to a distribution system, and has the extended meaning given to it in section 1.9 of the DSC; “embedded retail generator” means a customer that: (a) is not a wholesale market participant or a net metered generator (as defined in section 6.7.1 of the DSC); (b) owns or operates an embedded generation facility, other than an Emergency Backup Generation Facility; and (c) sells output from the embedded generation facility to the Ontario Power Authority under contract or to a distributor;

**“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;

**“Emergency Backup Generation Facility”** means a standby power system that is installed on a customer site for the sole purpose of providing electrical power if the primary or system power has been interrupted or is unavailable;

**“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;

**“expansion”** means a modification or addition to the main distribution system in response to one or more requests for one or more additional customer connections that otherwise could not be made, for example, by increasing the length of the main distribution system, and includes the modifications or additions to the main distribution system identified in section 3.2.30 of the DSC but in respect of a renewable energy generation facility excludes a renewable enabling improvement;

**“exporting connection”** means a connection through which power flow is from the customer’s premises to the distribution system where the injection to the system is intentional (the connection is supporting a generation facility). This connection type may

also support power flow from the distribution system to the customer's premises (non-exporting mode), e.g. storage in charging mode, or station or customer load;

**“generate”** with respect to electricity, means to produce electricity or provide ancillary services, other than ancillary services provided by a transmitter or distributor through the operation of a transmission or distribution system;

**“generation facility”** means a facility for generating electricity or providing ancillary services, other than ancillary services provided by a transmitter or distributor through the operation of a transmission or distribution system, and includes any structures, equipment or other things used for that purpose;

**“generator”** means a person who owns or operates a generation facility;

**“good utility practice”** means any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry in North America during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgement in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good practices, reliability, safety and expedition. Good utility practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in North America;

**“holiday”** means a holiday described in section 88 of the Legislation Act, 2006, S.O. 2006, c. 21, Sched. F as well as the August Civic Holiday;

**“host distributor”** means the distributor who provides electricity to an embedded distributor;

**“IESO”** means the Independent Electricity System Operator established under the Electricity Act;

**“IESO-Controlled Grid”** means the transmission systems with respect to which, pursuant to agreements, the IESO has authority to direct operation;

**“interval meter”** means a meter that measures and records electricity use on an hourly or sub-hourly basis;

**“LEAP”** means the Low-Income Energy Assistance Program established by the Board;

**“LEAP Intake Agency”** means a social service agency, municipality or government agency that assesses a residential electricity consumer's eligibility for Emergency Financial Assistance;

**“load displacement”** means, in relation to a generation facility that is connected on the customer side of a connection point, that the output of the generation facility is used or intended to be used exclusively for the customer's own consumption;

**“Market Rules”** means the rules made under section 32 of the **Electricity Act**;

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

**“metering device”** means the meter and, if so equipped, the instrument transformers, wiring, test links, fuses, lamps, loss of potential alarms, meters, data recorders, telecommunication equipment and spin-off data facilities installed to measure power past a meter point, provide remote access to the metered data and monitor the condition of the installed equipment;

**“metering services”** means installation, testing, reading and maintenance of meters;

**“non-exporting connection”** means a connection through which power flow is only from the distribution system to the customer’s premises (the connection is considered to be supplying a load);

**“Offer to Connect”** is an agreement that specifies Enova Power’s requirements for a Customer to connect to Enova Power’s Distribution System;

**“Ontario Electrical Safety Code”** or **“OESC”** means the code adopted by O. Reg. 164/99 as the Electrical Safety Code;

**“Ontario Electricity Support Program”** or **“OESP”** means the program established pursuant to section 79.2 of the Ontario Energy Board Act;

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

**“operational demarcation point”** means the physical location at which a distributor’s responsibility for operational control of distribution equipment including connection assets ends at the Customer;

**“ownership demarcation point”** means the physical location at which a distributor’s ownership of distribution equipment including connection assets ends at the Customer;

**“point of supply,”** with respect to an embedded generation facility, means the connection point where electricity produced by the generator is injected into a distribution system;

**“primary voltage”** a nominal voltage equal to or greater than 750 V;

**“rate”** means any rate, charge or other consideration, and includes a penalty for late payment;

**“Rate Handbook”** means the document approved by the Board that outlines the regulatory mechanisms that will be applied in the setting of distributor rates;

**“Regulations”** means the regulations made under the **Act or the Electricity Act**;

**“renewable enabling improvement”** means a modification or addition to the main distribution system identified in section 3.3.2 that is made to enable the main distribution system to accommodate generation from renewable energy generation facilities;

**“renewable energy generation facility”** has the meaning given to it in the Act;  
**“renewable energy source”** has the meaning given to it in the Act;

**“retail”**, with respect to electricity means, a) to sell or offer to sell electricity to a consumer, b) to act as agent or broker for a retailer with respect to the sale or offering for sale of electricity, or c) to act or offer to act as an agent or broker for a consumer with respect to the sale or offering for sale of electricity;

**“Retail Settlement Code”** means the code approved by the Board and in effect at the relevant time which, among other things, establishes a distributor’s obligations and responsibilities associated with financial settlement among retailers and customers and provides for tracking and facilitating customer transfers among competitive retailers;

**“retailer”** means a person who retails electricity;

**“Retailer Consolidated Billing”** means Enova Power will not issue a bill to a Retailer Customer under this billing option. The Retailer is responsible for issuing the bill to the Customer and for customer non-payment risk;

**“satisfactory credit check”** means a payment history from a major credit reporting agency showing prompt payment and no bankruptcies, judgements or delinquencies for the required time period of the relevant customer rate class;

**“secondary voltage”** a nominal voltage less than 750 V;

**“service area,”** with respect to a distributor, means the area in which the distributor is authorized by its licence to distribute electricity;

**“smart meter”** or **“smart metering”** means a meter that is part of an advanced metering infrastructure that meets the functional specification referenced in the Criteria and Requirements for Meters and Metering Equipment, Systems and Technology Regulation, O. Reg. 425/06;

**“storage facility”** means, for the purpose of connections, a facility that uses electrical energy (i.e. charges), and then stores such energy for a period of time, and then provides electrical energy as an output, minus any losses (i.e. discharges);

**“system power”** means power flowing through a connection to a customer from the distribution system;

**“total losses”** means the sum of all energy losses including distribution system losses, supply facility losses and unaccounted for energy;

**“transmission system”** means a system for transmitting electricity and includes any structures, equipment or other things used for that purpose;

**“Transmission System Code”** means the code, approved by the Board, that is in force at the relevant time which regulates the financial and information obligations of the Transmitter with respect to its relationship with customers, as well as establishing the standards for connection of customers to and expansion of a transmission system;

**“transmit”**, with respect to electricity, means to convey electricity at voltages of more than 50 kilovolts;

**“transmitter”** means a person who owns or operates a transmission system;

**“unaccounted for energy”** means all energy losses that cannot be attributed to distribution losses. These include measurement error, errors in estimates of distribution losses and unmetered loads, energy theft and non-attributable billing errors;

**“unit smart meter”** or **“unit smart metering”** has the meaning ascribed to it in the Energy Consumer Protection Act, 2010;

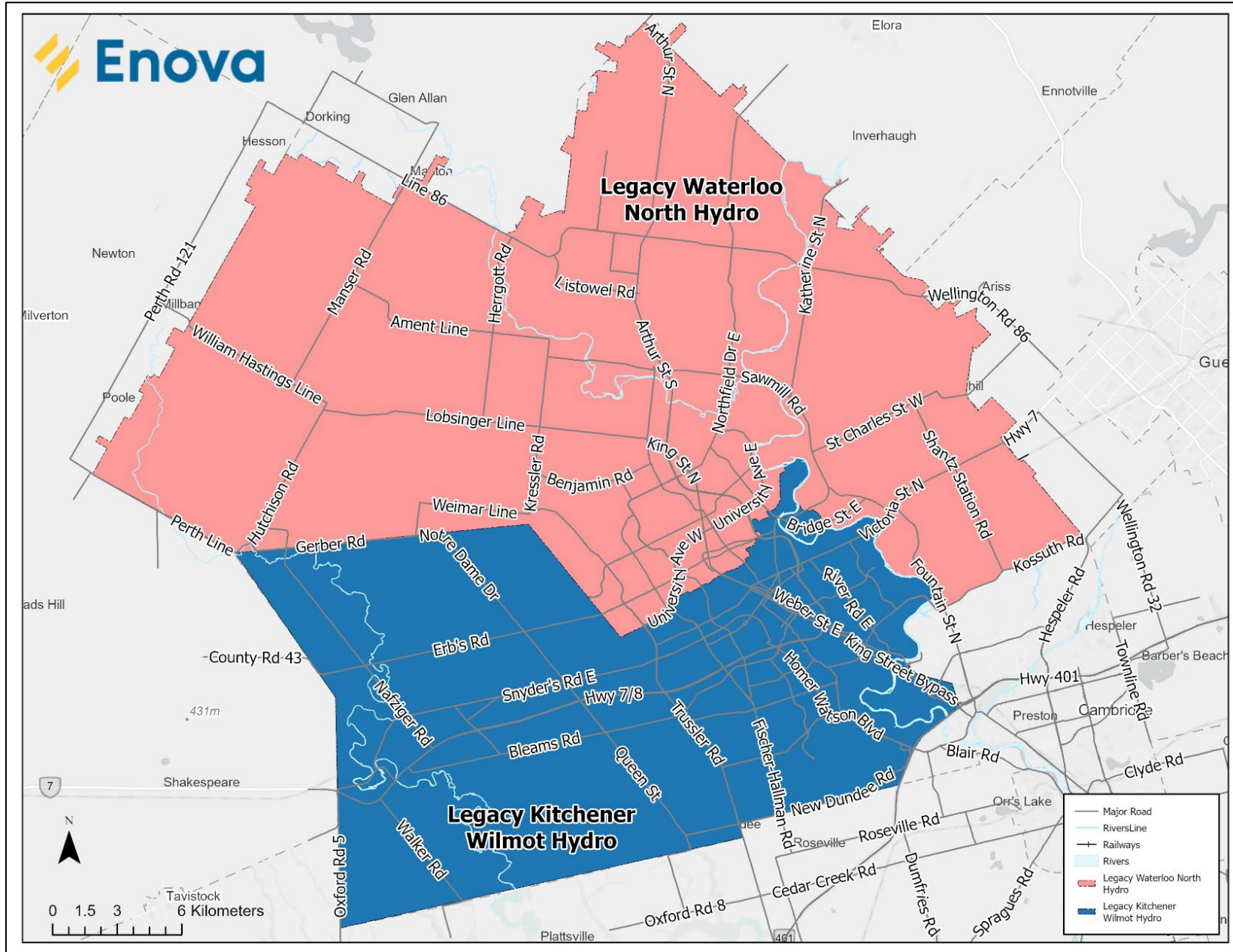
**“unmetered loads”** means electricity consumption that is not metered and is billed based on estimated usage;

**“wholesale market participant”**, means a person that sells or purchases electricity or ancillary services through the IESO-administered markets;



## **Appendix A – Enova Power Service Territory**

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## **Appendix B – Ownership Demarcation, Fees**

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## Residential Service

### Basic Connection Allowance:

Enova Power shall supply or provide equivalent credit for material, labour and material to install up to 30 meters of 200 A service overhead conductors from Enova Power's distribution system. Includes one set of connectors on each end, or an equivalent credit. Includes an equivalent credit for transformation equipment. Includes a 200A revenue meter. The initial service layout, one (1) Enova Power inspection, and one (1) site visit are included.

### Connection Fee:

Variable connection charge less the basic connection allowance.

### Service Disconnection Fee (Initiated by Customer Request):

- Disconnection: No charge to the Customer, cost recovered through Enova Power rates.
- Stranded Assets: Customer will be required to pay Enova Power 100% of the value of the stranded asset and all costs required for the removal of Enova Power assets.

### Civil Ownership Demarcation Point:

In general, the ownership demarcation for any civil structure is at the property line. The Customer shall construct or install, maintain and own all civil infrastructure on private property. The exceptions are:

- Enova Power has easement rights over private property to service a new residential subdivision development, where Enova Power owned electrical distribution system are installed to feed individual residential services.

Configuration	Electrical Ownership Demarcation Point
Overhead Service Not Requiring Transformation on Private Property	<ul style="list-style-type: none"> <li>• Less than 30 meters from property line: Top of Customer's service mast.</li> <li>• Greater than 30 meters from property line: First Customer hydro pole within 10 meters from property line.</li> </ul>
Underground Service Not Requiring Transformation on Private Property	<ul style="list-style-type: none"> <li>• Line side of Customer's meter base.</li> </ul>
Underground Service from City of Kitchener Downtown Network	<ul style="list-style-type: none"> <li>• Line side of Customer's main disconnecting device.</li> </ul>

Configuration	Electrical Ownership Demarcation Point
Overhead Radial Service Requiring Utility Owned Overhead Transformation on Private Property	<ul style="list-style-type: none"> <li>• First Customer hydro pole no more than 10 meters from property line.</li> </ul>
Overhead Radial Service Requiring Utility Owned Underground Transformation on Private Property	<ul style="list-style-type: none"> <li>• First Customer hydro pole no more than 10 meters from property line.</li> </ul>
Overhead Radial Service Requiring Customer Owned Transformation on Private Property	<ul style="list-style-type: none"> <li>• First Customer hydro pole no more than 10 meters from property line.</li> </ul>
Underground Radial Service Requiring Utility Owned Overhead Transformation on Private Property	<ul style="list-style-type: none"> <li>• Secondary spades of Enova Power's transformer.</li> </ul>
Underground Radial or Looped Service Requiring Utility Owned Underground Transformation on Private Property	<ul style="list-style-type: none"> <li>• Pad-mounted Transformer: Secondary spades of Enova Power's transformer.</li> <li>• Room Type Transformer: Secondary transition bus at wall of transformer room OR secondary spades of Enova Power's transformer.</li> </ul>
Underground Radial Service Requiring Customer Owned Transformation on Private Property	<ul style="list-style-type: none"> <li>• Line side of Customer-owned, ESA-approved load-break device.</li> </ul>

## General Service

### Basic Connection Allowance:

Enova Power shall provide a point of connection on the Enova Power distribution system. Enova Power will provide the labour to connect service conductors to its distribution system. Includes utility-owned transformation up to 1500 kVA in a radial supply, or up to 5000 kVA in a looped supply. The initial service layout, one (1) hydro inspection, one (1) site visit are included.

### Connection Fee:

Variable connection charge less the basic connection allowance.

### Service Disconnection Fee (Initiated by Customer Request):

- Disconnection: No charge to the Customer, cost recovered through Enova Power rates.
- Stranded Assets: Customer will be required to pay Enova Power 100% of the value of the stranded asset and all costs required for the removal of Enova Power assets.

### Civil Ownership Demarcation Point:

In general, the ownership demarcation for any civil structure is at the property line. The Customer shall construct or install, maintain and own all civil infrastructure on private property. The exceptions are:

- Enova Power has easement rights over private property to service a new commercial subdivision development, where Enova Power owned electrical distribution system are installed to feed individual general services.
- Customer installs their secondary voltage service conductors to a hydro pole owned by Enova Power, the civil ownership demarcation point will be the service weather head (F-head) attached to on the hydro pole, including any civil assets in the municipal right-of-way.

Configuration	Electrical Ownership Demarcation Point
Overhead Service Not Requiring Transformation on Private Property	<ul style="list-style-type: none"> <li>• Less than 30 meters from property line: Top of Customer's service mast.</li> <li>• Greater than 30 meters from property line: First Customer hydro pole within 10 meters from property line.</li> </ul>
Underground Service Not Requiring Transformation on Private Property	<ul style="list-style-type: none"> <li>• Line side of Customer's main disconnecting device OR Customer-owned service weather head (F-head) attached to Enova Power hydro pole.</li> </ul>

Configuration	Electrical Ownership Demarcation Point
Underground Service from City of Kitchener Downtown Network	<ul style="list-style-type: none"> <li>Line side of Customer's main disconnecting device.</li> </ul>
Overhead Radial Service Requiring Utility Owned Overhead Transformation on Private Property	<ul style="list-style-type: none"> <li>First Customer hydro pole no more than 10 meters from property line.</li> </ul>
Overhead Radial Service Requiring Utility Owned Underground Transformation on Private Property	<ul style="list-style-type: none"> <li>First Customer hydro pole no more than 10 meters from property line.</li> </ul>
Overhead Radial Service Requiring Customer Owned Transformation on Private Property	<ul style="list-style-type: none"> <li>First Customer hydro pole no more than 10 meters from property line.</li> </ul>
Underground Radial Service Requiring Utility Owned Overhead Transformation on Private Property	<ul style="list-style-type: none"> <li>Secondary spades of Enova Power's transformer.</li> </ul>
Underground Radial or Looped Service Requiring Utility Owned Underground Transformation on Private Property	<ul style="list-style-type: none"> <li>Pad-mounted Transformer: Secondary spades of Enova Power's transformer.</li> <li>Room Type Transformer: Secondary transition bus at wall of transformer room OR secondary spades of Enova Power's transformer.</li> </ul>
Underground Radial Service Requiring Customer Owned Transformation on Private Property	<ul style="list-style-type: none"> <li>Line side of Customer-owned, ESA-approved load-break device.</li> </ul>

## **Appendix C – Mandatory Conversion Areas**

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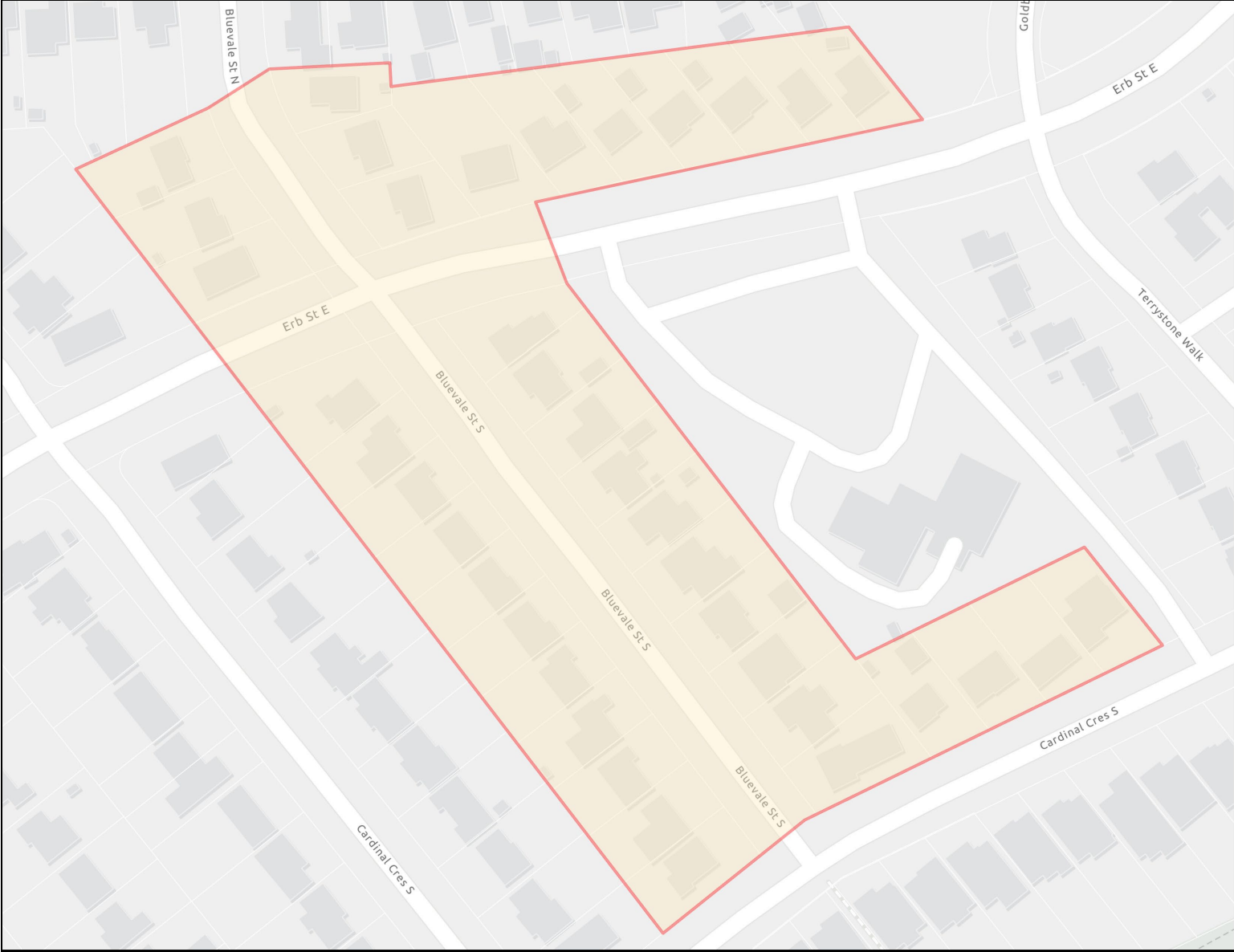
### Old Westmount Rd. Area, City of Waterloo



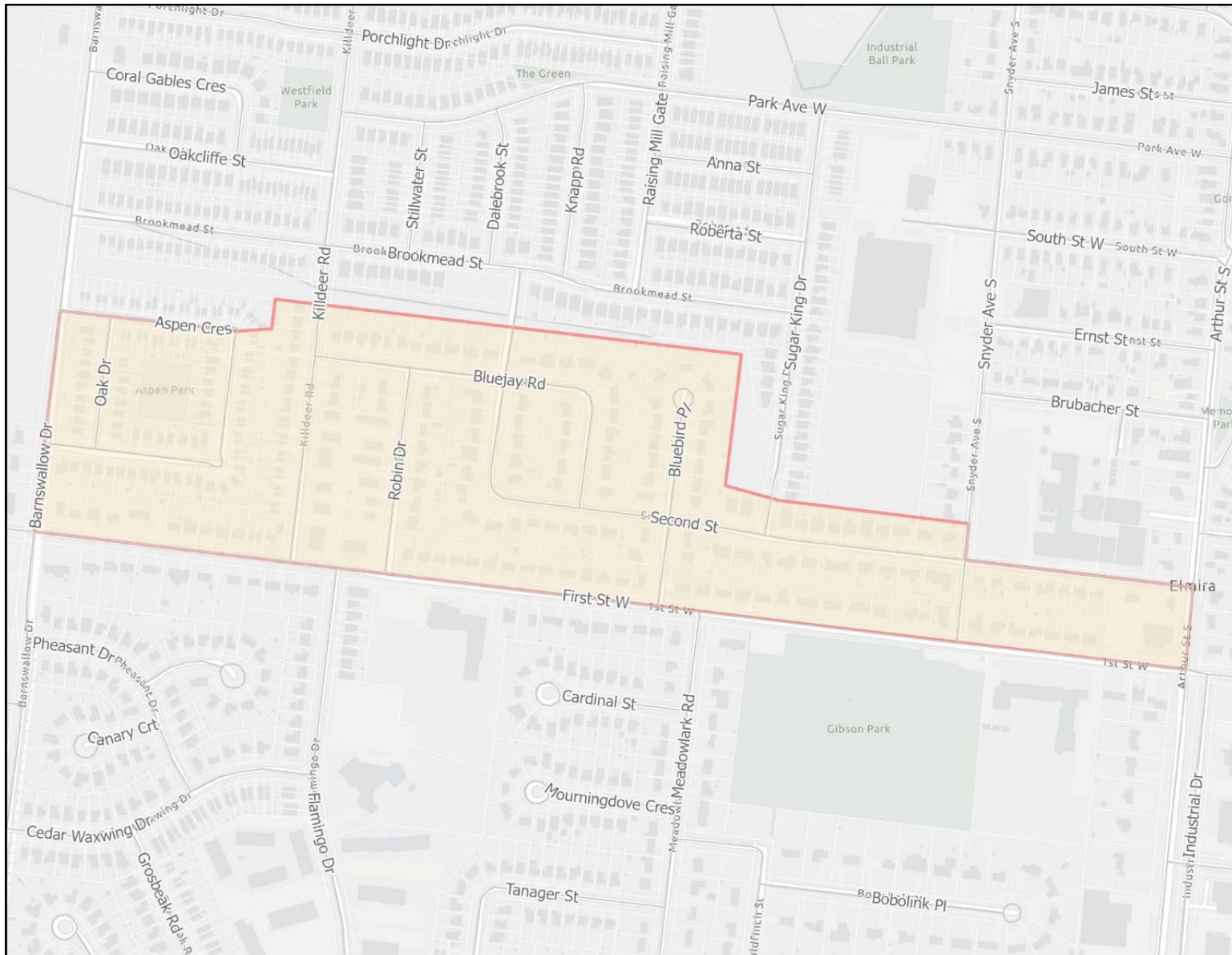
### Mackay Cres. Area, City of Waterloo



### Bluevale St. S. Area, City of Waterloo



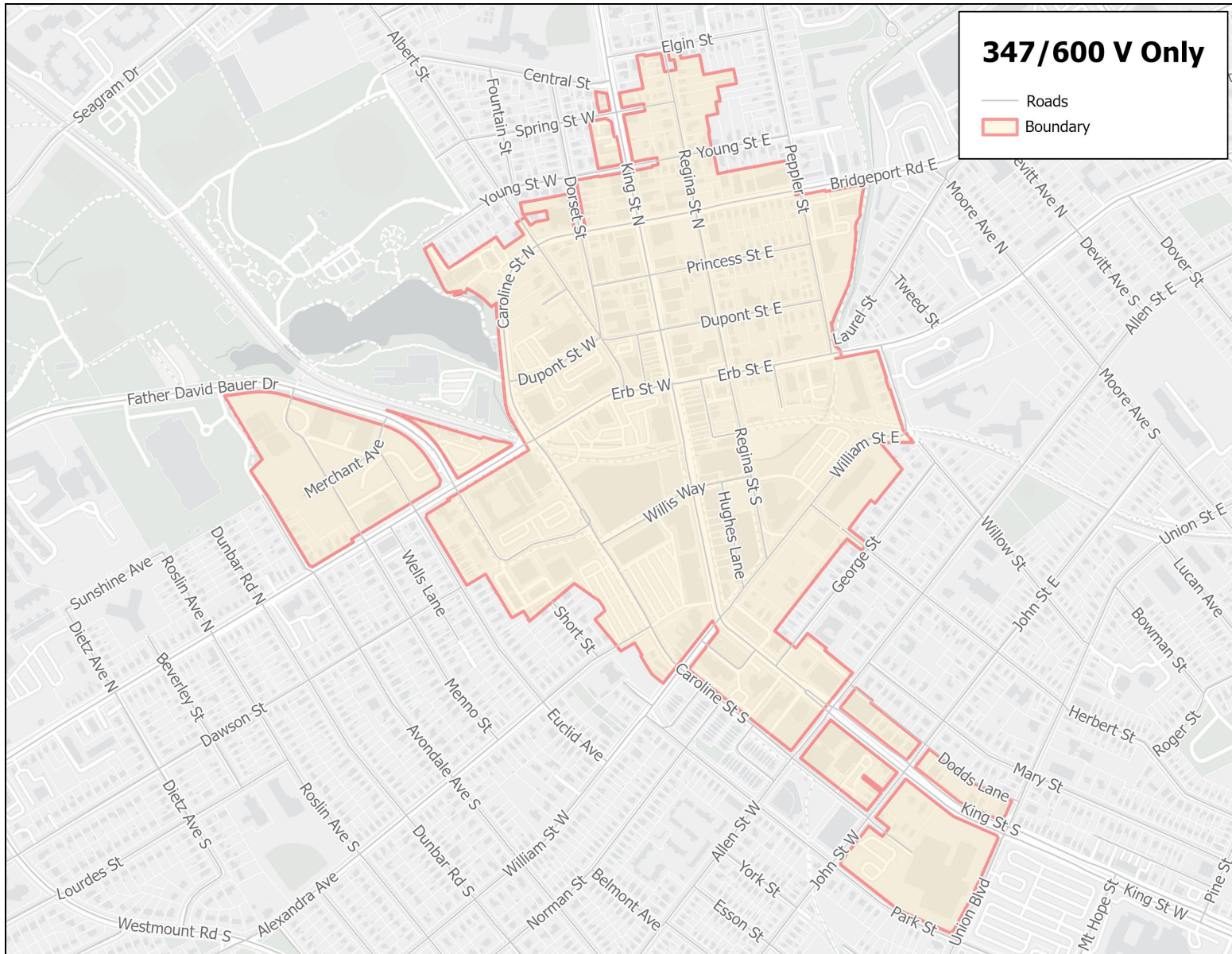
### First St. Area, Township of Woolwich (Elmira)



## **Appendix D – Areas with Updated Secondary Voltages**

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### Uptown Waterloo Area, City of Waterloo



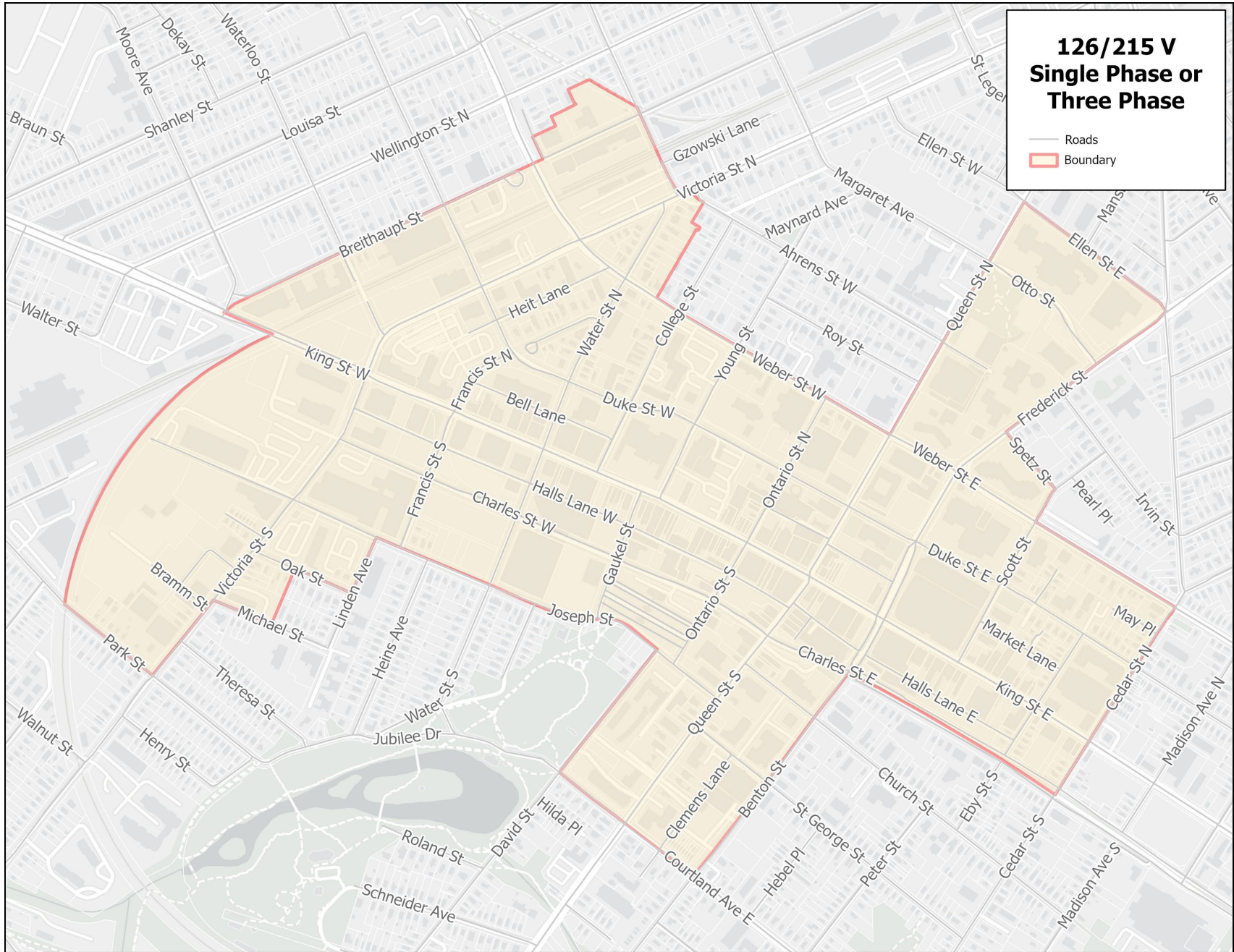
### Colby Dr. Area, City of Waterloo



## **Appendix E – City of Kitchener Downtown Network**

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**126/215 V  
Single Phase or  
Three Phase**

- Roads
- Boundary