

# NET METERING INFORMATION PACKAGE

(this package reflects bylaws in effect as of March 19, 2019)



**THIS PACKAGE CONTAINS:**

1. Steps to Apply for Net Metering - (1 page)
2. Questions and Answers Pamphlet - (2 pages)
3. Frequently Asked Questions and Contact Information - (2 pages)
4. City of Penticton Electric Utility Guidelines for Net Metering and Interconnection of Inverter-Based Distributed Resources (DR) document - (8 pages)
5. Electric Utility Services Bylaw 2017-44 – (44 pages)
6. Application for Net Metering – (3 pages)
7. A copy of the Net Metering Agreement with Schedule A – (6 pages)
8. Net Metered Micro-DR System Testing Checklist [used by the City when testing Inverter-Based Distributed Resource Installations] – (1 page)

## Steps to Apply for Net Metering

1. Review the City of Penticton Guidelines for Net Metering and Interconnection of Inverter-Based Distributed Resources (DR) included in this package to ensure that you understand the basic requirements of a DR interconnection.
2. Review The Electric Utility Services Bylaw No. 2017-44 (included in this package) to ensure that you understand the City's requirements for installing a DR system including the requirements for a Net Metering Agreement.
3. Fill out the Application for Net Metering form included in this package and submit it to the Building Dept. in City Hall along with a PV Solar Permit Package (<https://www.penticton.ca/sites/default/files/images/Solar%20Panel%20Package-2022.pdf>) for approval before proceeding with your DR system.
4. Once approval has been received, you may proceed with the installation of your DR system. All systems must adhere to the current Canadian Electrical Code.
5. Contact the City of Penticton Land Administration Office to execute the Net Metering Agreement.
6. A copy of the declaration from your electrician confirming that the installation meets all codes must be provided to the City of Penticton Electric Utility.
7. Payment for City of Penticton Electric Utility charges must be made before your system can be connected to the City's electrical system.
8. Prior to the interconnection and operation of your DR system:
  - a. It must be inspected and approved by the City of Penticton and any other governmental authorities having jurisdiction eg. Technical Safety BC.
  - b. It must be tested by the City of Penticton Electric Utility to ensure that the anti-islanding system operates as designed.
  - c. If this is a new installation i.e. there currently is no electrical connection from the City of Penticton, then a new account must be set up with the City of Penticton Utility Department (1<sup>st</sup> Floor, City Hall).
9. If you have any questions with regards to this process, please contact the appropriate City representative listed on the 'Frequently Asked Questions' sheet.



**THE CITY OF PENTICTON**

# **QUESTIONS & ANSWERS ABOUT NET METERING**



**THE CITY OF PENTICTON**

**Electric Utility**

616 Okanagan Ave East

Phone: 250-490-2535

Email: [electric.utility@penticton.ca](mailto:electric.utility@penticton.ca)

**NOTE:**

*This pamphlet is intended as a guide only. For all purposes of clarification or interpretation and application, the Electric Utility Services Bylaw 2017-44 should be consulted.*



## Why Net Metering?

The Net Metering Program supports the policy direction outlined by the provincial government in the 2007 BC Energy Plan. In addition, our customers have expressed a growing interest in Net Metering.

The objectives of the program are to provide customers with the means to take responsibility for their own power production and to lower their environmental impact.

## What is net metering?

Net metering is metering that allows for the flow of electricity both to and from a customer using a bidirectional meter.

These meters record the amount of electricity delivered to the customer and the amount of electricity received from the customer.

## How will it work?

Customers will be able to install small clean or renewable energy generators such as wind, hydro, solar or geothermal on their premises to produce energy. Customers can offset their purchase of power from the Utility at retail rates by using the power they produce. Any energy put back into the Utility system will be credited back to the customer at their current retail rate.

## What will it cost to participate?

Customers will be responsible for the entire cost of their own generation systems including design, permits, installation and maintenance. These costs will vary depending on what kind of technology and what size of system is chosen. Also, there will be associated Electric Utility connection and metering fees.

## How do I apply for the net metering program?

You will need to submit a PV Solar permit package c/w a Net Metering Application which will be reviewed by the City staff. You will also have to contact a qualified electrician to obtain an estimate.

## What happens if I produce more electricity than I use?

All electricity put back into the Utility system will be credited every billing period at the current City of Penticton rate i.e. the rate at which the City is billing you for that type of service.

## Will the City install a system for me?

No, the City does not design, engineer or install generating systems for its customers. We encourage you to educate yourself with regard to technology and equipment that may be purchased and installed and to determine that the installation will comply with all provincial and local codes and zoning bylaws & requirements. The City CAN NOT allow the interconnection of a generating facility until the customer provides a signed copy of their electrical inspector's final inspection & installation approval.

## How long will it take to complete the application process?

The City requires a 6 month notice period to evaluate and approve all applications. The application process timing is dependent on the customer supplying ALL relevant information as needed.

## Can I use the City Payment Plan to cover costs of my Micro-DR installation?

Yes, if you meet all the qualifications and the loan is between \$2,000 and \$50,000.

## If I have other questions, who can I contact?

You can contact the City of Penticton Electric Utility at 250-490-2535, or write/email to the below address.

**THE CITY OF PENTICTON**  
**Electric Utility**  
616 Okanagan Ave East  
Penticton BC V2A 3K6

Phone: 250-490-2535  
Email: [electric.utility@penticton.ca](mailto:electric.utility@penticton.ca)

## Frequently Asked Questions

### **Why Net Metering?**

The Net Metering Program supports the policy direction outlined by the provincial government in the 2007 BC Energy Plan. In addition, our customers have expressed a growing interest in Net Metering. The objectives of the program are to provide customers with the means to take responsibility for their own power production and to lower their environmental impact.

### **What is net metering?**

Net metering is metering that allows for the flow of energy both to and from a customer using a bidirectional meter. These meters record the amount of energy delivered to the customer and the amount of energy received from the customer. Customers can produce up to 50kW (<750V) through generating their own clean energy (Note: Contact the Electric Utility prior to all net metering installations, including any that may be larger than 50kW).

### **How will it work?**

Customers will be able to install small clean or renewable energy generators such as wind, hydro, solar or geothermal on their premises to produce energy. Any energy that is delivered to the customer in a billing period is charged at the current retail rate, any energy delivered back into the Utility's system each billing period will be credited to the customer at an energy rate as outlined in the current City of Penticton's Fees and Charges Bylaw (Appendix 7).

### **What will it cost to participate?**

Customers will be responsible for the entire cost of their own generation systems (including design, permits, installation & maintenance) and all associated Electric Utility costs. These costs will vary depending on what kind of technology and what size of system is chosen.

### **How do I apply for the net metering program?**

You will need to complete and submit a PV Solar permit package c/w Net Metering Application to the Building Dept. in City Hall. After you receive approval from the City, you will need to contact a qualified electrician to pull a permit and install your system.

### **Will the City install a system for me?**

No, the City does not design, engineer or install generating systems for its customers, however the City does offer a payment plan to cover the cost of the system and/or required electrical service upgrade. We encourage you to educate yourself with regard to technology and equipment that may be purchased and installed. You will be required to comply with all provincial and local codes and zoning bylaws & requirements. The City CANNOT allow the interconnection of a generating facility until the customer provides a signed copy of their electrical inspector's final inspection & approval of their installation.



### **How long will it take to complete the application process?**

The City requires a 6 month notice period to evaluate and approve all applications.

### **Can I use the City Payment Plan to Cover Costs of My Micro-DR Installation?**

Yes, if you meet all the qualifications. The minimum loan is \$2,000, the maximum is \$50,000.

### **If I have other questions, who can I contact?**

You can contact the City of Penticton, **Electric Utility Department** at **250-490-2535** or the Electric Utility Representatives below:

**Cara Weir**  
**Electric Utility Secretary**  
Ph. 250-490-2539  
Fax. 250-490-0270  
[cara.weir@penticton.ca](mailto:cara.weir@penticton.ca)

**Jas Singh**  
**Electric Utility Technologist**  
Ph. 250-490-2456  
Cell. 250-809-5250  
[jaspreet.singh@penticton.ca](mailto:jaspreet.singh@penticton.ca)

For more information on the Net Metering Agreement, please contact one of the City of Penticton Land Administrators listed below:

**Sheri Raposo**  
**Land Administrator**  
Ph. 250-490-2514  
[sheri.raposo@penticton.ca](mailto:sheri.raposo@penticton.ca)

**Jake Stewart**  
**Land Administrator**  
Ph. 250-490-2432  
[jake.stewart@penticton.ca](mailto:jake.stewart@penticton.ca)

For more information on signing up for a new Utility account, please contact one of our Utility representatives below:

**Sabrina Sparrow**  
**Revenue Supervisor**  
Ph. 250-490-2484  
[sabrina.sparrow@penticton.ca](mailto:sabrina.sparrow@penticton.ca)

**Kate Magnus**  
**Utilities Technician**  
Ph. 250-490-2483  
[kate.magnus@penticton.ca](mailto:kate.magnus@penticton.ca)

For more information on the PV Solar Permit Package, please contact one of our Building representatives below:

**Marc Veer**  
**Building Official Lead**  
Ph. 250-490-2509  
[marc.veer@penticton.ca](mailto:marc.veer@penticton.ca)

**Ken Kunka**  
**Deputy Director of Dev. Services**  
Ph. 250-490-2505  
[ken.kunka@penticton.ca](mailto:ken.kunka@penticton.ca)

## **City of Penticton Electric Utility**

# **Guidelines for Net Metering and Interconnection of Inverter-Based Distributed Resources (DR)**

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## **1. Purpose**

- 1.1. The purpose of these guidelines is to summarize the requirements for installing a customer owned and maintained inverter-based micro-distributed resource (Micro-DR) system. This is a summary only, and the referenced documents should be read and understood thoroughly before proceeding with any Micro-DR system.

## **2. References**

- 2.1. Electric Utility Services Bylaw 2017-44.
- 2.2. CAN/CSA – 22.2 No. 257-06 (R2015) Interconnection of Inverter-Based Micro-Distributed Resources to Distribution Systems.
- 2.3. CAN/CSA – 22.2 No. 107.1-01 (R2011) General Use Power Supplies.
- 2.4. C22.1 Canadian Electrical Code, Part I (most current edition) with BC Amendments.
- 2.5. C22.2 Canadian Electrical Code, Part II (most current edition).

### 3. Intent

- 3.1. It is the intent of the Penticton Electric Utility to permit any customer to operate generating equipment in parallel with its electric system whenever this can be done, provided the Electric Utility Services Bylaw 2017-44 is adhered to and there will be no adverse effects on the general public or Penticton Electric Utility personnel or equipment.
- 3.2. The Penticton Electric Utility maintains the right to limit the number or capacity of Micro-DR units on any part of their distribution system [see Electric Utility Services Bylaw B.21a)].
- 3.3. The Penticton Electric Utility will not assume any responsibility for design, installation or settings of the protective device required for the protection of the customer's generator(s), or of any portion of the customer's electrical equipment. The customer is fully responsible for operating and protecting their equipment in such a manner that faults or other disturbances on the Penticton Electric Utility system do not cause damage to their equipment [see Electric Utility Services Bylaw B.21 f) iv)].
- 3.4. The Micro-DR owner is responsible for all costs associated with the Net Metered System including all costs related to any modifications of the Net Metered System that may be required by the Penticton Electric Utility including but not limited to safety and reliability [see Electric Utility Services Bylaw 6.3 d) ].

### 4. General Requirements

All of the following General Requirements must be met in order for a customer to connect to the Penticton Electric Utility distribution network:

- 4.1. The Micro-DR system complies with CAN/CSA – 22.2 No. 257-06 (R2015) Interconnecting Inverter-Based Micro-Distributed Resources to Distribution Systems [see Electric Utility Services Bylaw B.21 f) iv) ].
- 4.2. The Micro-DR system uses, as its fuel, a source defined as a clean and renewable resource in the BC Energy Plan. The fuel source must also comply with City of Penticton Bylaws [see Electric Utility Services Bylaw 6.3 d) iii) ].
- 4.3. The Micro-DR system is inverter-based [see Electric Utility Services Bylaw 6.3 d) iv) ].
- 4.4. The Micro-DR system is located on the customer's premises [see Electric Utility Services Bylaw B.21 d) ].
- 4.5. The Micro-DR system is intended to offset part or all of the customer's requirements for electricity [see Electric Utility Services Bylaw 6.3 d) ].
- 4.6. The Micro-DR output is at 750 volts or less and the Micro-DR system is not larger than 50 kW. For proposed systems >50kW, contact the City Electric Utility [see Electric Utility Services Bylaw B.21 f) i) ].



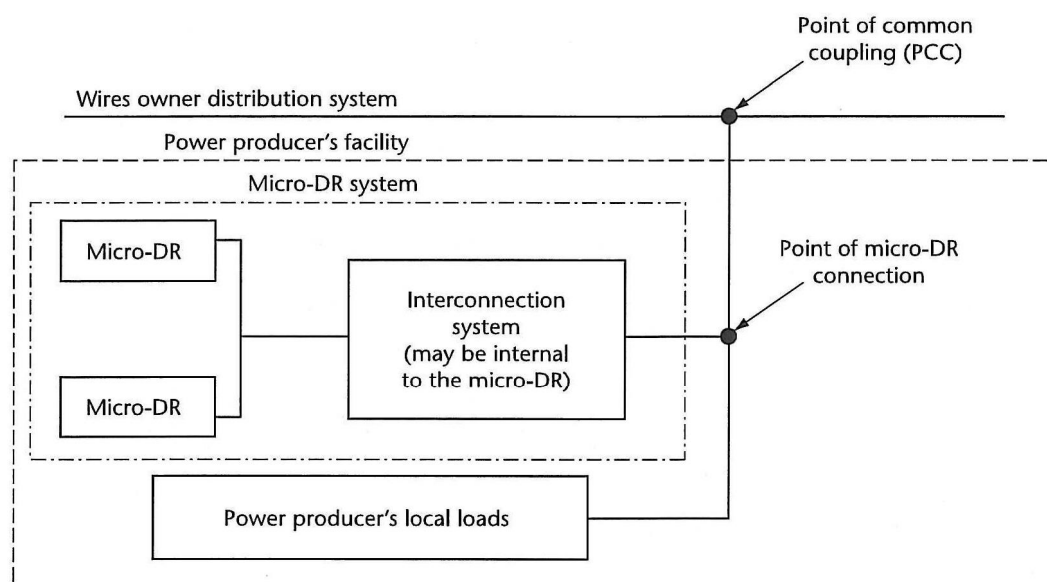
- 4.7. All Micro-DR systems are reviewed and approved by the Electric Utility Manager [see Electric Utility Services Bylaw B.21 e) ].
- 4.8. Micro-DR systems shall be installed in accordance with the current Canadian Electrical Code, Part I [see Electric Utility Services Bylaw B.21 f) iv) ]. All equipment shall meet the requirements of the applicable Standards of the current Canadian Electrical Code, Part II [see Electric Utility Services Bylaw B.21 f) ii) ].
- 4.9. There will be no adverse effects on the general public, or to the Penticton Electric Utility equipment/personnel [see Electric Utility Services Bylaw B.21 g) iv) ].
- 4.10. The Micro-DR owner must complete a Penticton Electric Utility Application for Net Metering and sign a Net Metering Interconnection Agreement [see Electric Utility Services Bylaw B.21 c) ].

## 5. Operating Requirements

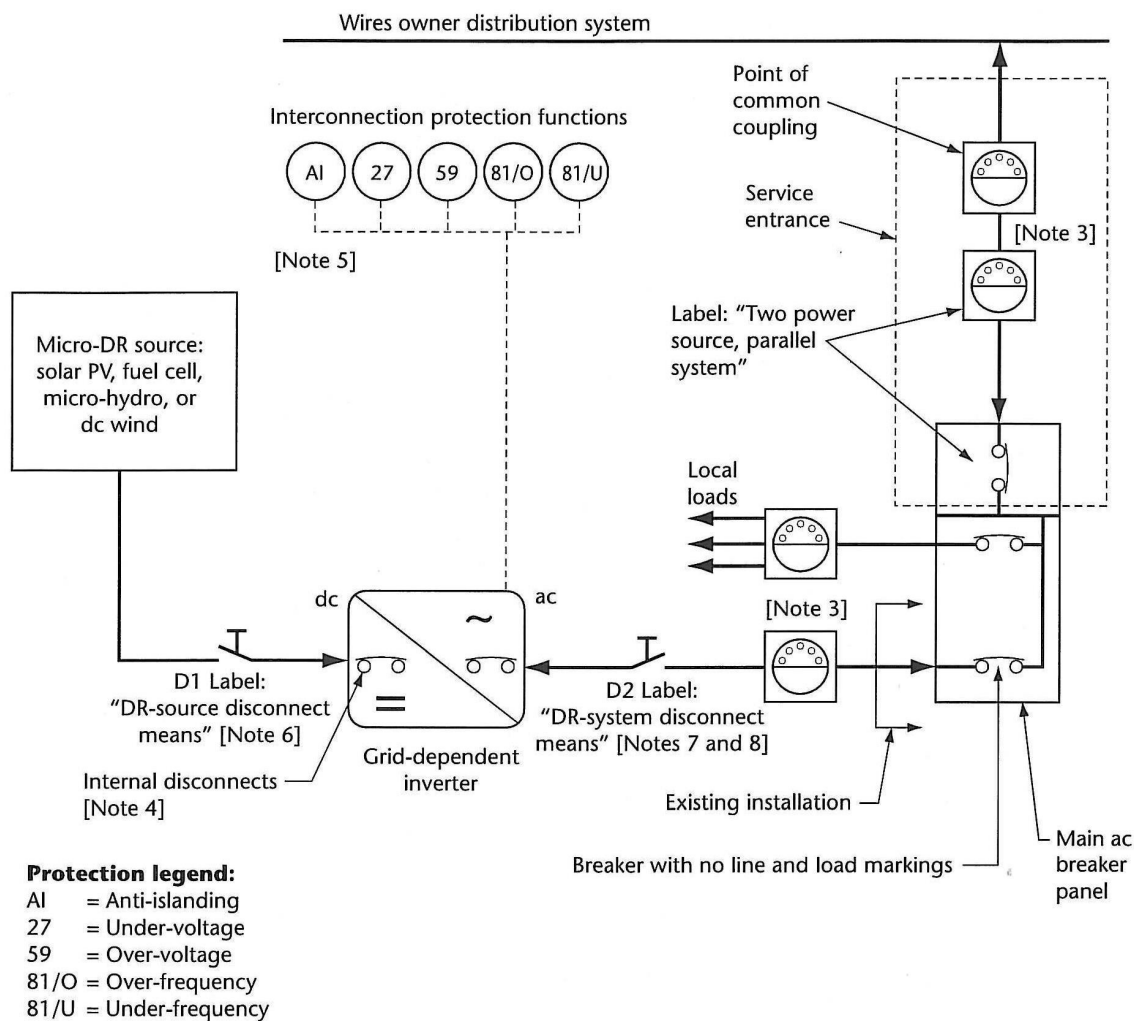
- 5.1. The Micro-DR owner may not commence parallel operation of its generation equipment until final written approval has been given by the Electric Utility Manager [see Electric Utility Services Bylaw B.21 g) i) ].
  - 5.1.1. The Micro-DR single line diagram and protection settings must be approved by the Electric Utility Manager [see Electric Utility Services Bylaw B.21 g) ii) ].
- 5.2. The Penticton Electric Utility maintains the right to inspect the Micro-DR facilities with reasonable prior notice and at a reasonable time of day [see Electric Utility Services Bylaw B.21 g) iii) ].
- 5.3. The interconnection of the customer's generating equipment with the Penticton Electric Utility distribution network shall not cause any reduction in the quality of service being provided to other customers [see Electric Utility Services Bylaw B.21 g) iv) ].
- 5.4. The Micro-DR owner shall, at its expense, provide a disconnecting means capable of isolating the Net Metering System from the Penticton Electric Utility distribution network. Such equipment must be approved by the Penticton Electric Utility Manager and shall be accessible by Penticton Electric Utility staff at all times [see Electric Utility Services Bylaw B.21 f) iii) ]. The switching equipment must be:
  - 5.4.1. Certified (eg. CSA, UL etc.).
  - 5.4.2. Meet the intent of Canadian Electrical Code, section 84
  - 5.4.3. Have a provision for locking in the open position
  - 5.4.4. Provide a visual indication of the open position
  - 5.4.5. Be located outside, and near the electrical meter.
- 5.5. The Micro-DR owner will not be permitted to energize a circuit de-energized by the Penticton Electric Utility [see Electric Utility Services Bylaw B.21 g) v) ].
- 5.6. The Micro-DR system must meet the anti-islanding requirements of CSA standard C22.2 No 107.1-01 (R2011) and cease energizing the distribution system within a time no greater than two seconds after the formation of an unintentional island [see Electric Utility Services Bylaw B.21 f) ii) ].

- 5.7. The Penticton Electric Utility maintains the right to disconnect, without liability, the Micro-DR for any issues relating to safety and reliability [see Electric Utility Services Bylaw B.21 b) ].
- 5.8. The following documentation is required prior to parallel operation [see Electric Utility Services Bylaw B.21 g) ii) ]:
- 5.8.1. complete set of specifications for the installation
  - 5.8.2. complete set of single line diagrams
  - 5.8.3. complete set of commissioning procedures
  - 5.8.4. executed Net Metering Agreement
- 5.9. The Micro-DR owner is responsible for commissioning and periodic maintenance of the interconnection equipment. Commissioning and maintenance must be performed by competent personnel. A copy of the commissioning and maintenance test reports must be retained by the Micro-DR owner and made available to the Penticton Electric Utility upon request [see Electric Utility Services Bylaw B.21 g) vi) ].

## 6. Figures



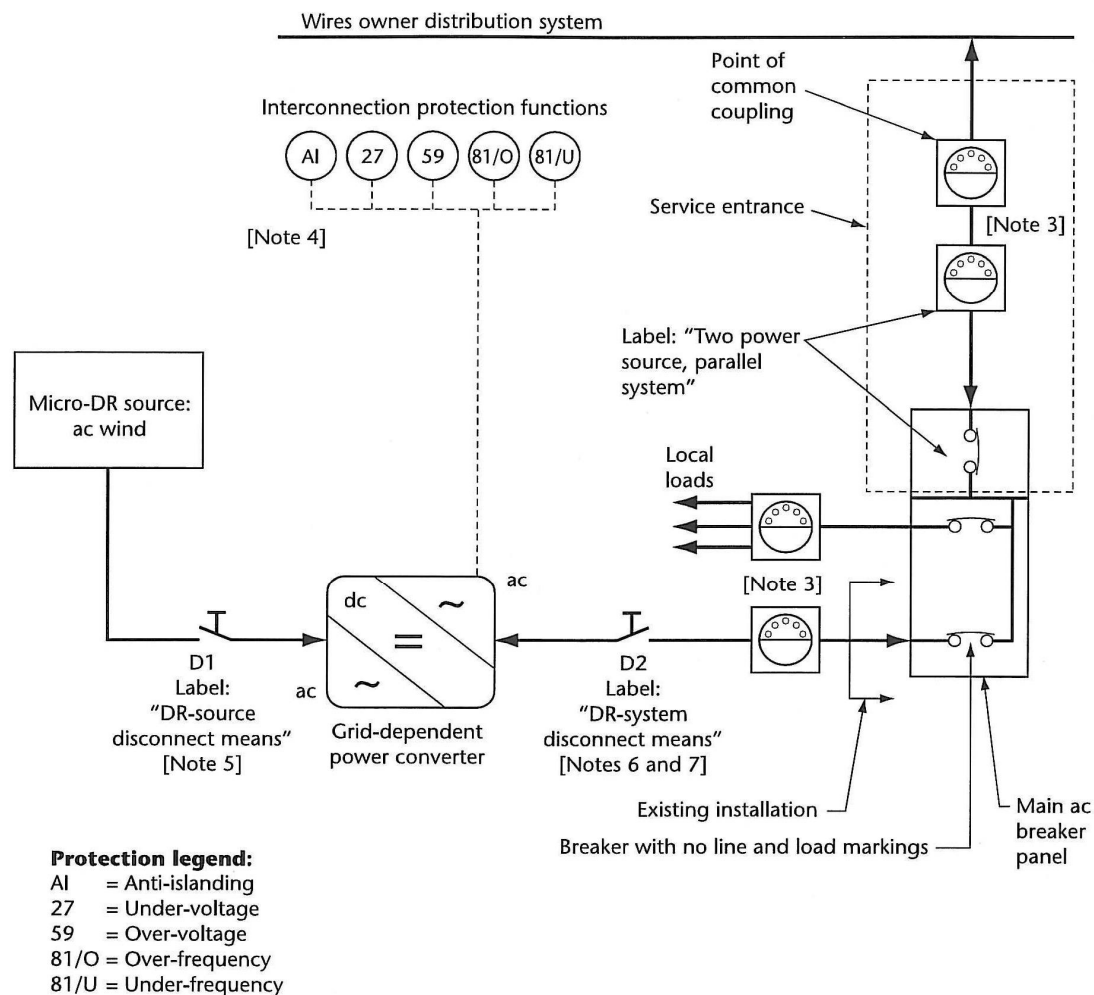
**Figure 1**  
**Relationships between the micro-DR system and other interconnection terms**



**Notes:**

- (1) Additional marking and warning notices should meet the requirements of Sections 50 and 84 of the Canadian Electrical Code, Part I.
- (2) System grounding should meet the requirements of Sections 10, 50, and 84 of the Canadian Electrical Code, Part I.
- (3) This diagram shows possible locations of meters. The number and location of metering points are given by commercial agreement.
- (4) Some inverters may not contain internal disconnects.
- (5) Protection schematic shown is for micro-DR systems. See Table D.1 for requirements on specific systems.
- (6) Location and specification of D1 are given in the section of the Canadian Electrical Code, Part I, appropriate to DR technology.
- (7) Location and specification of D2 are given in Section 84 of the Canadian Electrical Code, Part I, and by the wires owner.
- (8) D2 may not be required in certain systems if other disconnecting means are deemed acceptable by local codes and the wires owner.

**Figure 2**  
**Grid-dependent micro-DR using solar PV, fuel cell, micro-hydro,  
or dc-generating wind systems**

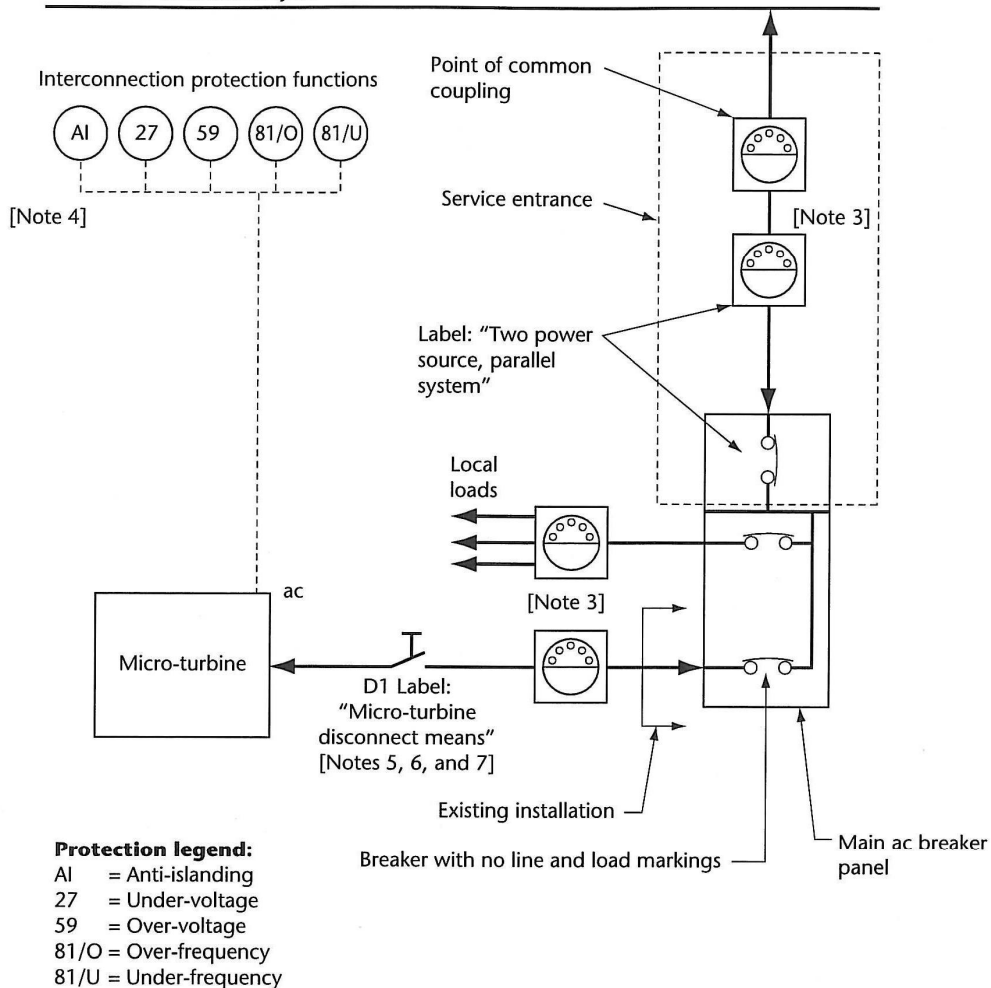


**Notes:**

- (1) Additional marking and warning notices should meet the requirements of Sections 50 and 84 of the Canadian Electrical Code, Part I.
- (2) System grounding should meet the requirements of Sections 10, 50, and 84 of the Canadian Electrical Code, Part I.
- (3) This diagram shows possible locations of meters. The number and location of metering points are given by commercial agreement.
- (4) Protection schematic shown is for micro-DR systems. See Table D.1 for requirements on specific systems.
- (5) Location and specification of D1 are given in the section of the Canadian Electrical Code, Part I, appropriate to DR technology.
- (6) Location and specification of D2 are given in Section 84 of the Canadian Electrical Code, Part I, and by the wires owner.
- (7) D2 may not be required in certain systems if other disconnecting means are deemed acceptable by local codes and the wires owner.

**Figure 3**  
**Micro-DR using ac-generating wind systems**





**Notes:**

- (1) Additional marking and warning notices should meet the requirements of Sections 50 and 84 of the Canadian Electrical Code, Part I.
- (2) System grounding should meet the requirements of Sections 10, 50, and 84 of the Canadian Electrical Code, Part I.
- (3) This diagram shows possible locations of meters. The number and location of metering points are given by commercial agreement.
- (4) Protection schematic shown is for micro-DR systems. See Table D.1 for requirements on specific systems.
- (5) Location and specification of D1 are given in the section of the Canadian Electrical Code, Part I, appropriate to DR technology.
- (6) Location and specification of D1 are given in Section 84 of the Canadian Electrical Code, Part I, and by the wires owner.
- (7) D1 may not be required in certain systems if other disconnecting means are deemed acceptable by local codes and the wires owner.

**Figure 4**  
**Micro-DR using micro-turbines inverter included in micro-turbine**

# **The Corporation of the City of Penticton**

## **Bylaw No. 2017-44**

*A Bylaw to establish and regulate the Penticton Electric Utility Services.*

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WHEREAS the Council of the Corporation of the City of Penticton considers it desirable and expedient to maintain the municipal Service of an electric utility for the Penticton community and to make regulations, impose requirements, and prohibit in relation to the provision of this Electrical Service;

NOW THEREFORE BE IT RESOLVED that the Municipal Council of the Corporation of the City of Penticton, in open meeting assembled, hereby ENACTS AS FOLLOWS:

### **PART 1 – TITLE**

This Bylaw may be cited for all purposes as "Electric Utility Services Bylaw No. 2017-44".

### **PART 2 – DEFINITIONS**

**"Ampere"** (A) means the unit used for the measurement of the flow of Electricity or Electric Current.

**"Apartment Building"** means a structure containing four or more Dwelling Units having access from an interior corridor system or common entrance.

**"Apparent Power"** means the total Power measured in kilovolt Amperes (kVA).

**"Applicant"** means a person who applies to the City for a new, upgraded, extension or change of Service.

**"Bill"** means the invoice produced by the City for the supply of Electrical Service to the Customer.

**"Billing Date"** means the date a Customer's Bill was prepared by the City and is as indicated on the Bill.

**"Billing Period"** means the period between Meter readings or the period of time which the Bill covers.

**"Bulk Meter"** means one Meter that measures all Electricity used in a building containing multiple Premises.

**"Chief Financial Officer"** means the person appointed to carry out the duties of the Chief Financial Officer as defined in the *Community Charter*.

**"City"** means the Corporation of the City of Penticton.

**"Collector"** means the municipal officer assigned the responsibility as Collector of taxes for the City.

**"Connected Load"** means the sum of all the individual electrical loads in the Customer's Premises.

**"Consumption"** means the amount of Electrical Energy in kilowatt-hours (kWh) as measured or estimated by the City over a given period of time.

**"Corporate Officer"** means the person appointed to carry out the duties of the Corporate Officer as defined in the *Community Charter*.

**"Council"** means the Council of the City.

**"Current"** means the flow of Electricity in a conductor wire(s) or cable(s) measured in Amperes (A).

**"Customer"** means any individual person, partnership or other entity, organization, corporation, firm or government agency, supplied with Electrical Service. Any Customer receiving Electrical Service from the City at more than one location or for more than one separately operated business shall be considered a separate Customer for each such location or for each such business.

**"Customer's Equipment"** means all that part of the Facilities on the Customer's side of the Point of Delivery except the Meter.

**"Demand"** means the rate at which Electric Energy is used in any instant or averaged over any designated period of time, measured in kilowatts (kW) or kilovolt Amperes (kVA).

**"Disconnect"** means a device, group of devices, or other means that will allow the conductors of a circuit to be Disconnected from their source of electrical supply.

**"Distributed Resources"** (DR) means sources of Electric Power that are not directly connected to a bulk Power transmission system. DR includes both generators and Energy storage technologies.

**"Distribution System"** means any network of Electricity that operates at a nominal Voltage of 50,000 V or less and distributes Electric Power between substations and the Point of Delivery.

**"Dwelling Unit"** means one or more rooms for the use of one or more persons as a housekeeping unit with cooking, eating, living, and sleeping facilities.

**"Electric Utility Manager"** means the person appointed as the Manager of the Penticton Electric Utility, or his or her designate, for the City.

**"Electrical Code"** means the B.C. Electrical Code adopted under the *Safety Standards Act*, and *Electrical Safety Regulation*, B.C. Reg. 100/2004.

**"Electrical Energy"** means Energy.

**"Electrical Safety Regulation"** means the *Electrical Safety Regulation*, B.C. Regulation 100/2004.

**"Electrical Safety Standards Legislation"** means the *Safety Standards Act*, *Electrical Safety Regulation* and Electrical Code.

**"Electrical Service"** means the provision of Electricity by the Penticton Electric Utility.

**"Electrical Service Entrance"** means an approved assembly consisting of an enclosure that can be locked or sealed, containing either fuses and a switch, or a circuit breaker, and of such design that it is possible to operate either the switch or circuit breaker to the open position by manual means when the box is closed.

**"Electrical Room"** means a room or space provided in a building to accommodate Electrical Service Equipment for the building including Customers' Equipment and Meters.

**"Electricity"** means either or both Demand and Energy, as the context requires.

**"Embedded Generator"** means an Electrical Generation Facility which is connected on the Customer side of the Point of Delivery to the Distribution System.

**"Energy"** means Power multiplied by the length of time it is used and measured in kilowatt hours (kWh).

**"Facilities"** means Equipment or apparatus that has been designed, manufactured, built, constructed or installed to provide Electrical Service.

**"Fees and Charges Bylaw"** means the City's Fees and Charges Bylaw No. 2014-07.

**"General Manager of Infrastructure"** means the person appointed as the General Manager of Infrastructure.

**"General Service"** means a Service for business, commercial, industrial or institutional Premises, or manufacturing Facilities, and includes, but is not limited to, Services to the following:

- a) Farms which are distribution centers for items produced on that Farm or other farms;
- b) Auto courts, motels and hotels;
- c) Temporary Service to all buildings, mobile offices set up on a temporary basis while construction projects are underway, such Service to be removed when the construction project is complete;
- d) Any Service other than those specified under the definition of "Residential Service";
- e) Schools and educational facilities, hospitals and clinical Facilities, churches and halls, recreational establishments; and
- f) Irrigation systems.

**"Generation Facility"** means a Facility for generating Electricity or providing ancillary Services provided by the Electric Utility through the operation of a Distribution System, and includes any structures, Equipment or other things used for that purpose.

**"Horsepower"** (hp) means equivalent to 746 Watts.

**"House Meter"** means that portion of the Electrical Service in Premises with multiple Owners or Occupiers which is common to all Occupants, and includes parking lot lighting, sign Service, corridor and walkway lighting, hallway heating and cooling.



**"Interconnection"** means the result of the process of Electrically connecting a DR System in parallel to a Distribution System.

**"Inverter"** means a Power electronic device that converts direct Current Power into alternating Current Power.

**"Joint Use Contact Agreement"** means an agreement between Penticton Electric Utility and a public utility that has connected its works or Equipment to Penticton Electric Utility's Distribution System.

**"kilovolt Ampere"** (kVA) means the product of the effective Voltage (V) across the terminals of an Electric circuit by the effective Current (measured in Amperes (A)) through it, divided by 1,000.

**"kilowatt"** (kW) means 1,000 Watts (W).

**"kilowatt hour"** (kWh) is the measure of Electrical Energy generated, transmitted or Consumed over a specified period.

**"Maximum Demand"** means the greatest measured Demand averaged over a period of not more than 32 consecutive minutes during a Billing Period.

**"Measurement Canada"** is the Federal institution of Innovation, Science and Economic Development Canada. It is responsible for ensuring accuracy in the selling of measured goods, developing and enforcing the laws related to measurement accuracy, approving and inspecting measuring devices and investigating complaints of suspected inaccurate measurement.

**"MegaWatt"** (MW) means 1,000 kilowatts (kW).

**"Meter"** means any device used for measuring either or both the Demand and Consumption of Electricity.

**"Meter Installation"** means the Meter and, if so equipped, the instrument transformers, wiring, test links, fuses, lamps, loss of potential alarms, Meters, data recorders, telecommunication Equipment and spin-off data Facilities installed to measure Power past a Meter point, provide remote access to the Metered data and monitor the condition of the installed Equipment.

**"Micro-Distributed Resource"** (Micro-DR): means a DR with an operating output Voltage of 750 V or less.

**"Micro-DR System"** means the aggregate Micro-DR, Inverter(s), Interconnection system(s), control system(s), sensing device(s) or function(s), and protection devices and functions to the point of Micro-DR connection.

**"Month"** means a period of from twenty-seven (27) to thirty-five (35) consecutive days.

**"Multi-unit Residential"** means any detached building divided into three (3) or more Dwelling Units and may include shared entrances, exits and other essential facilities and services and Dwelling Units separated by common party walls, each with its own separate entrance or exit or three or more manufactured homes located on a parcel and suitable for year-round occupancy.



**"Net Metering"** means the use of a Net Metering System and billing practice that allows for the flow of Electricity both to and from the Customer through a single, bi-directional Meter.

**"Net Metering System"** means a facility for the production of Electric Energy that:

- a) Uses as its fuel, a source defined as a clean and renewable resource in the BC Energy Plan;
- b) Has a design capacity of not more than 50 kW unless otherwise permitted under B.21(g)(i);
- c) Is located on the Customer's Premises and is owned by a Customer;
- d) Is a Parallel Operation;
- e) Offsets part or all of a Customer's Electricity requirements per Billing Period; and
- f) May produce Electricity in excess of a Customer's Electricity requirements per Billing Period for sale to the Penticton Electric Utility.

**"Occupier"** has the meaning given to the term in the *Community Charter*.

**"Outstanding Balance"** means any monies owed to the City by a Customer for fees, rates, charges, penalties, interest, retrofit loans, payment plan arrangements or security deposits.

**"Owner"** has the meaning given to the term in the *Community Charter*.

**"Parallel Operation"** means the simultaneous energization of a Point of Delivery by the Distribution System and the Micro-DR System.

**"Penticton Electric Utility"** means the City's Electric Utility Department.

**"Penticton Electric Utility's Equipment"** means the Distribution System and Meters.

**"Point of Delivery"** the location at which the Service Connection is connected to the Metering Equipment or the Customer's Electrical Facilities, whichever is connected closest to the Distribution System.

**"Power"** means the rate at which Electrical Energy is generated, transmitted or consumed measured in kilowatts (kW), Real Power or kilovolt Amperes (kVA), Apparent Power.

**"Power Factor"** means the percentage determined by dividing the Customer's Demand measured in kilowatts (kW) by the same Demand measured in kilovolt-Amperes (kVA) (i.e. Real Power/Apparent Power or kW/kVA).

**"Premises"** means land, a building or a structure or a part of land, a building or structure or a combination of these used or occupied by a Customer.

**"Primary Metered"** means the Metering Installation is located on the Penticton Electric Utility's side (line side) of the Service Transformation Equipment.

**"Primary Voltage"** means a Voltage exceeding 750 volts (V) measured phase to phase.

**"Real Power"** means the Power component required to do real work, which is measured in kilowatts (kW).

**"Regular Business Hours"** means 7:00AM to 2:45PM Monday through Friday, excluding Statutory and Civic holidays.

**"Regulated Work"** means:

- a) The assembly, manufacture, construction, installation, operation, testing, maintenance or repair of Penticton Electric Utility's Equipment; and
- b) The alteration of Penticton Electrical Utility's Equipment.

**"Residential Service"** means a Service for a Dwelling Unit, and includes, but is not limited to, Services to the following:

- a) Dwelling Units where an incidental portion of the Energy supplied through the Meter is used for a business; and
- b) Residential subdivisions and Multi-unit Residential buildings and developments that are not individually Metered including Apartment Buildings, strata complexes and townhouse complexes.

**"Safety Authority Act"** means the *Safety Authority Act*, S.B.C. 2003, c. 38.

**"Safety Standards Act"** means the *Safety Standards Act*, S.B.C. 2003, c. 39.

**"Safety Standards General Regulation"** means Safety Standards General Regulation B.C. Reg. 105/2004.

**"Secondary Metered"** means the Meter Installation is located on the Customer's side (load side) of the Service Transformation Equipment.

**"Secondary Voltage"** means a Voltage of 750 volts (V) or less measured phase to phase.

**"Service"** means Electrical Facilities in use for the provision of Electricity as required to a Customer's Point of Delivery.

**"Service Connection"** means that part of the Penticton Electric Utility's distribution Facilities extending from the first attachment point on the Penticton Electric Utility's Distribution System to the Point of Delivery.

**"Service Extension"** means an addition to, or extension of the Penticton Electric Utility's Distribution System including an addition or extension on public or private property that is required to Service a new development or subdivision and which is capable of servicing land other than the land of new development or subdivision.

**"Subdivision and Development Bylaw"** means the City's Subdivision and Development Bylaw No. 2004-81.

**"Technical Safety BC"** means the British Columbia Safety Authority (operating as Technical Safety BC), established under the *Safety Authority Act*, S.B.C. 2003, c. 38, and responsible for administering the *Safety Standards Act*.

**"Temporary Service"** means an Electrical Service to Premises that is less than thirty (30) Meters in length over private property and is to provide Power for construction work only on the Premises and terminates within one (1) year.

**"Transformation"** means those items including switches, transformers, Metering, Equipment, cut-outs, fuses, surge arresters needed to provide the required Voltage, Current and Equipment protection at a particular point in the Electrical Distribution System.

**"Un-metered Electrical Service"** means a Service provided to a Customer that is not Metered and is billed based upon estimated Power usage.

**"Underground Service"** means an underground Electrical Service to a Customer, from a pole, pad-mount transformer or Service box and that is privately owned and maintained by the Customer and connected to the Customer's Premise at the Meter base via an underground conduit system.

**"Voltage"** (V) means the difference in Electrical potential between two points of an Electrical system measured in volts.

**"Watt"** (W) is the unit of measurement for the Power required to perform work at the rate of one joule per second.

### **PART 3 – SERVICE**

#### **3.1 Service Area**

Council establishes the Electrical Service within the boundaries of the City except for the area shown as "excluded area" on the map in Schedule "A" and this Bylaw applies to all the lands within the City boundaries except for the area shown as "excluded area" on the map in Schedule "A" and is called the Electrical Service Area.

#### **3.2 Responsibilities**

- a) The Electric Utility Manager is the head of the operational division of the Penticton Electric Utility and shall be responsible for:
  - i) The operation, maintenance, repair and upgrading of the Penticton Electric Utility;
  - ii) The management of all employees engaged in the operational division of the Penticton Electric Utility; and
  - iii) Ensuring that all records and information with respect to all new and existing Electrical Service Connections and Disconnections are accurately kept and

reported to the administration division of the Penticton Electric Utility to facilitate proper charges and accounts for Electrical Services; and

- iv) Ensuring the Regulated Work is in compliance with the *Safety Standards Act*;
- b) The General Manager of Infrastructure is the head of the management division of the Penticton Electric Utility and shall be responsible for the overall management of the Penticton Electric Utility, including, but not limited to, such matters as labour relations, supervision of senior personnel and further to act as liaison between City Council and other divisions of the City;
- c) The Chief Financial Officer is the head of the administration division of the Penticton Electric Utility and shall be responsible for the:
  - i) Preparation, control and management of the administrative and financial records of the Penticton Electric Utility;
  - ii) Classification of electrical rates;
  - iii) Collection of fees and charges for the provision of this Electrical Service; and
  - iv) Filing and amending the Fees and Charges Bylaw; and
- d) The Corporate Officer is responsible for the preparation and filing at the Land Title Office of statutory rights of way, and the preparation of other agreements in relation to the Electrical Service.

#### **PART 4 – PROVISION OF SERVICE**

##### **4.1 General Conditions**

- a) The supply of Electrical Services shall be in accordance with this Bylaw;
- b) The supply of Electrical Services shall comply with, and be subject to the Customer's compliance with, the Electrical Safety Standards Legislation, which prevails in the event of any conflict with this Bylaw;
- c) A person who desires an Electrical Service, or who uses or is required to apply for Electrical Service under this Bylaw, must complete an application on the form provided by the Penticton Electric Utility and submit it, along with applicable fees, to the Penticton Electric Utility; and
- d) The Penticton Electric Utility will not perform any work on Customer's Equipment except in respect of the Meter Installation. All work at a Customer's Premises must be completed by qualified personnel at the Customer's expense in compliance with the Electrical Safety Standards Legislation; however, the Penticton Electric Utility may



work on a Customer's Equipment to isolate Power for safety purposes or in accordance with other provisions in this Bylaw.

## 4.2 Electrical Service Classifications

### a) Residential Service

For most residential uses, the Electrical Service will be 60 hertz, normally 200 amps single-phase 120/240 volts 3 wire or three-phase 120/208 volts, either 3 wire (network) or 4 wire. The Penticton Electric Utility shall determine the Voltage, phase(s) and Rate Code of the Residential Service Connection based on these variables;

Residential Service Rate Codes:

- A. Rate Code 10 - Residential: Includes detached Dwelling Units, one unit of a semi-detached duplex, triplex, or quadruplex with residential zoning; and Dwelling Units within a strata building, town house complex or Apartment Building; and
- B. The City's Business Licence database will be used as a source of information for the determination of the applicable Rate Code.

### b) General Service

For all non-residential uses, the Electrical Service will be 60 hertz, single or three-phase at Secondary or Primary Voltage. The Penticton Electric Utility shall determine the Voltage, phase(s) and Rate Codes of the General Service Connection;

i) General Service Rate Codes:

- A. Rate Code 20 – General: Secondary Metered and City-Owned Transformation (Secondary Service Connection);
- B. Rate Code 25 – General: Primary Metered and City-Owned Transformation (Secondary Service Connection);
- C. Rate Code 30 – General: Secondary Metered and Customer-Owned Transformation (Primary Service Connection);
- D. Rate Code 35 – General: Primary Metered and Customer-Owned Transformation (Primary Service Connection); and
- E. Rate Code 45 - General - City Accounts.



c) Un-metered Service

The Electrical Service will be 60 hertz, single-phase 120 volts 2 wire or 120/240 volts 3 wire. The Penticton Electric Utility shall determine the Voltage, phase(s) and Rate Code of the Un-metered Service Connection;

i) Un-metered Service Rate Codes:

- A. Rate Code 55 - Street Lighting and Other Un-metered Loads including lighting of public highways, streets and lanes, squares and parks, illuminated street signs and traffic signals.

ii) Specifications for Customer-Owned Equipment

- A. Lighting loads will be connected to a control device such as a photoelectric eye so that the fixtures operate only from dusk to dawn;
- B. Lighting fixtures and lamp types must be of a design acceptable to the Electric Utility Manager;
- C. Customer-owned fixtures may be installed on suitable City poles by City crews at the Customer's expense based on actual cost of installation plus an administration charge; and
- D. Any maintenance of customer-owned Equipment by the City's crews will be at the Customer's expense.

4.3 Application for Electrical Service

a) Applications for Electrical Service are required for any of the following:

- i) Connection of a new Electrical Service;
- ii) Change of Electrical Service location;
- iii) Connection of a Micro-DR System;
- iv) A new Customer locating to an existing Electrical Service;
- v) Transfer of a Customer's account to another Premises;
- vi) An increase in the Customer's Electrical load requirements; or
- vii) An Electrical Service Extension

b) As a condition of supplying or continuing to supply Electrical Service, the Applicant or Customer must pay the required connection fees and other charges established in the Fees and Charges Bylaw;

- c) The Customer must supply the Penticton Electric Utility with accurate information on their Electrical load requirements. The City shall not be responsible for any loss, cost or damages suffered by any Customer as a result of Electrical Service being provided based on inaccurate information;
- d) In the absence of an application for Electrical Service, the supply of Electricity by the Penticton Electric Utility to Premises shall be deemed a supply of Electricity to a Customer subject to terms and conditions of this Bylaw;
- e) The Penticton Electric Utility may refuse to approve an application for Electrical Service when any of the following conditions apply:
  - i) Penticton Electric Utility Facilities are not available to supply an Electrical Service;
  - ii) The Applicant's Facilities are not satisfactory to the Penticton Electric Utility or do not comply with the Electrical Safety Standards Legislation as determined by Technical Safety BC; and
  - iii) The application for Electrical Service is for Premises that the Applicant occupies with another Occupant who has had the Electrical Service Disconnected for non-payment of an Outstanding Balance
- f) A Customer must not substantially increase his or her Connected Load without first obtaining approval from the Penticton Electric Utility under a separate application;
- g) A Customer must not use the Electrical Service or any part of it for any other purpose than that for which the application is made and must comply with this Bylaw and the Fees and Charges Bylaw;
- h) When there is a change in Ownership or tenancy on any existing Electrical Service Connection, the new Owner or Occupier who wishes to have the Service continued must submit an application for Electrical Service together with the applicable fees in accordance with this Bylaw and the Fees and Charges Bylaw;
- i) If the Outstanding Balance for any amount owing for an Electrical Service remains unpaid by December 31, the Outstanding Balance is a debt owing to the City, and among other remedies, may be collected in the same manner as for property taxes in arrears; and
- j) The utility account for an Electric Service to a Multi-unit building where a Bulk Meter is used, shall be maintained in the name of the Owner or Occupier of the Premises. Where there is a strata development involved, the account is to be maintained in the name of the Strata Corporation.

#### 4.4 Maximum number of Electrical Services

- a) Unless otherwise authorized by the Penticton Electric Utility, the maximum number of Electrical Services per parcel is one; and
- b) In circumstances where two or more existing Electrical Services are installed to a parcel, and one Electrical Service is to be upgraded, the upgraded Electrical Service will incorporate or replace the existing Electrical Service.

### **PART 5 – DISCONNECTION OF ELECTRICAL SERVICE**

#### 5.1 Termination of Electrical Service by the Customer

If the Customer is relocating, or for any reason, no longer requires the Electrical Service, the Customer shall notify the City at least three (3) business days prior to the date the Electrical Service is no longer required or as otherwise provided in this Bylaw. Until the date the Electrical Service is no longer required as set out in the notice of termination, the Customer shall continue to be responsible for the costs of all Electrical Service supplied to the Premises unless and until the City receives an application for Electrical Service from a new Customer for that Premises or confirmation from the City's Building Department that a demolition permit has been issued in relation to the Premises.

#### 5.2 Non-Payment of Fees, Charges or Security Deposit

The Penticton Electric Utility may discontinue or limit the supply of Electricity to a Customer for non-payment of any fee, charge penalty or interest imposed under the provisions of this Bylaw or the Fees and Charges Bylaw.

#### 5.3 Breach of Conditions

If the Electric Utility Manager considers that a Customer or an Owner or Occupier of a Premises has contravened this Bylaw or the Fees and Charges Bylaw, the Electric Utility Manager may, by written notice, inform the person of the contravention, and that, unless the contravention is remedied and compliance achieved within twenty-one (21) days from the date of the notice, the City may discontinue the Electrical Service subject to the following:

- a) A person subject to a notice under this section may make representations to Council by notifying the Corporate Officer in writing on or before the expiry of five (5) business days from the date the notice of discontinuance was received, that he or she wants a hearing before Council at the next meeting of Council;
- b) The Electrical Service of the person who has provided the notice in section 5.3(a) to the Corporate Officer will not be discontinued until after the hearing before Council;



- c) A person who has requested a hearing before Council under section 5.3(a) may make representations in written form or in person, or by way of a representative with respect to the contravention and notice;
- d) After providing an opportunity for the person to be heard and considering any submissions from that person and any evidence relevant to the matter, may confirm, vary or cancel the notice. The decision of Council is final, subject only to a review by a court of competent jurisdiction; and
- e) If the decision by Council following a hearing opportunity is to discontinue Service, the Electrical Service may be discontinued immediately thereafter, provided it is not before the expiry of the twenty-one (21) day notice period referred to in section 5.3.

#### 5.4 Customer Request to Maintain Primary Voltage Connected Facilities

Where the Point of Delivery is at Primary Voltage, the Customer:

- a) Has the right to have the Electric Service Disconnected, for the purpose of maintaining privately owned Electrical Equipment by notifying the Electric Utility Manager, in writing, three (3) business days in advance of the maintenance work being scheduled. This notice is to include both the date and time the Service is to be disconnected; and
- b) Will be provided with one free Disconnect/reconnect for maintenance of the existing Service for each Point of Delivery each calendar year unless the Disconnection/reconnection of the Service is outside of Regular Business Hours, in which case the Disconnect/reconnect fee under the Fees and Charges Bylaw will apply.

#### 5.5 Reconnection of Electrical Service

Any Electrical Service Disconnected under the provisions of sections 5.2, 5.3 or 5.4 of this Bylaw shall not be reconnected until the following conditions are met:

- a) In respect of disconnection under section 5.2 - when the Outstanding Balance has been paid in full, along with any fees and charges owing as a result of the Disconnection and reconnection of the Electrical Service;
- b) In respect of Disconnection under section 5.3 - when the breach has been remedied to the satisfaction of the Electric Utility Manager and any fees and charges for Disconnection and reconnection of the Electrical Service have been paid in full;
- c) If an Electrical Service has been Disconnected for any reason, except in respect of disconnection under section 5.2, or the Electrical use within the Premises has changed substantially, or if the Service for Primary Metered Customers was Disconnected for maintenance purposes under section 5.4, the Penticton Electric Utility may require proof of Technical Safety BC approval; and

- d) Electrical Service reconnect fees will apply as established in the Fees and Charges Bylaw.

## 5.6 Suspension of Supply

Despite any other provisions of this Bylaw, the Penticton Electric Utility may cause the supply of Electricity to any Customer, to be suspended, without notice, if any of the following conditions apply:

- a) The Electrical Service at a Premises is hazardous or has the potential to create an imminent hazard to life or property;
- b) Repairs on or improvements to any of its Distribution System and Meters must be made;
- c) There is a shortage of supply of Electrical Energy;
- d) Suspension is necessary in the circumstances of a storm, fire, flood or other sudden emergency;
- e) There is fraudulent use of Electricity; or
- f) The Penticton Electric Utility is ordered by another authority having jurisdiction to suspend or terminate an Electrical Service.

## PART 6 – CONDITIONS OF ELECTRICAL SERVICE

### 6.1 Electrical Service Regulations

Any person, installing, constructing, altering, repairing, upgrading or maintaining any Electrical Facilities in the Service Area shall do so according to the Service Regulations and Specifications outlined in Schedule "B" and subject to any requirements of the Electrical Safety Standards Legislation.

### 6.2 Access

- a) The Customer shall grant the City's employees or agents full access to the Customer's Equipment and the Penticton Electric Utility Equipment at all reasonable times for Meter reading and testing, removal, installation, Electrical Service inspections, maintenance, or repair;
- b) If ready access to the City's Facilities are denied or obstructed in any manner, including without limitation by the presence of animals, and the Customer takes no action to remedy the obstruction upon being advised by the City's employees or agents, Electrical Service to the Customer may be suspended by the Penticton Electric Utility and not reconnected until the obstruction is corrected and in these circumstances, section 5 of this Bylaw applies; and

- c) Where any of the Penticton Electric Utility's Equipment is located in Premises that are secured or locked, the following shall apply:
  - i) Access must be made available through the use of LSDA (Locksmith Dealers of America) keys;
  - ii) If the City's employee or agent deems it necessary, the Customer shall supply the City's employee or agent with keys, security codes or other means to access the area;
  - iii) The City shall accept keys only in circumstances where the City's employee or agent considers it convenient and necessary to have its Meters or Facilities in a common area; and
  - iv) The City's employees or agents are not obligated to accept custody of keys and the City retains the right, at its sole discretion, to require that its Meters or Facilities be located or relocated to an area the Penticton Electric Utility considers appropriate and where locks are not required.

### 6.3 Embedded Generation

- a) The City may permit Embedded, Standby and/or Micro-DR Generation Facilities in its Service Area, subject to the standards of the Penticton Electric Utility and compliance with the Electrical Safety Standards Legislation;
- b) Customers considering using Embedded Generation technology shall apply to the Electric Utility Manager and obtain approval in advance of the Penticton Electric Utility installing the bi-directional Meter;
- c) Standby (non-parallel):
  - i. The Customer may, at their own expense, install standby generation Facilities to provide Electrical Service in the event of a disruption of Electrical Service from the Penticton Electric Utility; and
  - ii. Without written approval for a variance from the Electric Utility Manager; standby Generation Facilities shall be installed so that they remain at all times Electrically isolated from the Penticton Electric Utility's Electrical System and shall be installed in such a way that it is not possible for the Generating Facilities to operate in parallel with the Penticton Electric Utility's Electrical System;
- d) Micro-DR (parallel):
  - i. The Customer may, at their own expense, install Micro-DR Facilities to generate their own Electricity to offset part or all of the Electric Energy

provided by the Penticton Electric Utility subject to the following restrictions:

- A. The output shall not exceed 750 volts; and
  - B. The size shall not exceed 50kW without written authorization from the Electric Utility Manager.
- ii. A Customer who generates Electricity in excess of that Customer's Electrical requirements within a Billing Period shall be reimbursed for the Electricity that is provided to the Penticton Electric Utility during the Billing Period as measured by the bi-directional Meter in accordance with section 8.4 of this Bylaw and the Fees and Charges Bylaw;
  - iii. Micro-DR Generation Facilities must use as its fuel, a source defined as a clean and renewable resource in the BC Energy Plan. The fuel source must also comply with the City's Bylaws; and
  - iv. The Micro-DR System must be Inverter based and meet the anti-islanding requirements of the Canadian Standards Association and Specifications outlined in Schedule "B"; and
- e) The Customer's Electrical Generating Facilities shall not be operated without the prior inspection and written approval of the Penticton Electric Utility, and the Micro-DR Facilities shall not be modified thereafter without the prior written approval of the Penticton Electric Utility.

## **PART 7 – METERING**

### **7.1 Installation**

Unless approved in writing by the Penticton Electric Utility, all Meter Installations necessary for measuring the Customer's use of Electricity will be installed by the Penticton Electric Utility and the entire cost of such Installations shall be paid for by the Customer. The Meter Installations shall remain the property of the Penticton Electric Utility and shall be maintained in accurate operating condition in accordance with the requirements of *Measurement Canada*. The Penticton Electric Utility, at its sole discretion subject to any Customer options provided in section 4 and Schedule "B" of this Bylaw, shall determine the type of Meter used.

### **7.2 Protection of Metering Equipment**

The Customer shall exercise all reasonable diligence to protect the Meter Installation from damage or defacement and shall be responsible for any costs of repair or cleaning resulting from defacement or damage of the Meter Installation unless caused by the City's employees or agents.

### 7.3 Meter Connections by Penticton Electric Utility Only

The Penticton Electric Utility or its agents shall perform all connections, Disconnections of Electrical Service and Installation and repair of the Penticton Electric Utility's Meter Installation. All Meter Installations installed by the Penticton Electric Utility shall be sealed. No person shall break the seals or otherwise damage or tamper or interfere with the Meter Installation, or related Equipment.

### 7.4 Meter Testing

- a) The Penticton Electric Utility will test a Meter, for accuracy, in the following circumstances:
  - i) The Customer has made a request for a Meter test in writing; and
  - ii) The Customer has paid the required fee for a Meter test as established in the Fees and Charges Bylaw;
- b) If a Customer has satisfied the conditions in section 7.4(a), the Penticton Electric Utility will endeavour to:
  - i) Remove the Meter within ten (10) business days; and
  - ii) Apply to an accredited Meter inspector to have the Meter tested.
- c) After obtaining the results of a Meter test, the Penticton Electric Utility shall advise the Customer of the test results:
  - i) If the Meter failed to meet the Current Metering standards, the Meter test fee shall be refunded; and
  - ii) If the Meter failed to meet the allowable limits as set by the *Weights and Measures Act* (Canada) the City shall adjust the Customer's previous invoices in accordance with the *Electricity and Gas Inspection Act* (Canada).

### 7.5 Metering and Meter Location

The Customer shall provide and maintain an Electrical Service Entrance and Meter Installation location approved by the Penticton Electric Utility and as established in Schedule "B".

### 7.6 Demand Metering

The Penticton Electric Utility may install a Meter that measures Demand for any Electrical Service it deems necessary based on:

- a) The Customer's Load requirements;
- b) The Penticton Electric Utility's estimate of Consumption; or



- c) The previous Consumption used at the Premises.

#### 7.7 Un-metered Electrical Service

If an Un-metered Electrical Service exists, the Penticton Electric Utility, can estimate the Energy used for the Un-metered Electrical Service based on the Connected Load and hours of use. Any Customer served under this provision must promptly advise the Penticton Electric Utility within one business day of any changes in load or hours of use.

### **PART 8 – METER READING AND BILLING**

#### 8.1 Meter Reading Schedules

Meters will be read at the end of each Billing Period and the Penticton Electric Utility will read each Meter as close to the same day of the Month from the Billing Period in the previous Billing Period reading as practical.

#### 8.2 Estimates of Meter Readings

If, for any reason, the City does not obtain a Meter reading, for a Billing Period, the Collector may estimate the Customer's Meter reading by using historical Consumption information from its records.

#### 8.3 Record of Meter Readings

The Penticton Electric Utility will keep a record of all Meter readings which shall form the basis for determination of all amounts charged to the Customer for Electrical Service.

#### 8.4 Rates for Electricity

The Customer shall pay for Electrical Service in accordance with the Customer's applicable Rate Code as specified in this Bylaw and the Fees and Charges Bylaw.

When paying Net Metered Customers for any excess Energy generated by the Customer, the Penticton Electric Utility shall use the applicable Energy rate as specified in the FortisBC Electric Tariff Schedule 40 as amended from time to time.

#### 8.5 Prorated Billings

The Penticton Electric Utility may prorate the basic charges per day based upon the number of days of Service used in the Billing Period where the Service was used, connected, or cancelled.

#### 8.6 Changes in Rates

If the rates charged to the Customer for Electrical Service change and the effective date of the change falls between two consecutive Meter readings, the Penticton Electric Utility may calculate the Billing on a prorated basis.

## 8.7 Sales taxes or other Assessments

The Customer, in addition to any payments for Electrical Service, shall pay to the City the amount of any sales taxes, other taxes, assessments or levies imposed by the taxing authority on any Electrical Service delivered to the Customer by the City.

## 8.8 Payments for Electrical Service

Once a Bill is issued, the following conditions apply to the Customer for payment:

- a) All accounts are due and payable within twenty-two (22) days of the Billing Date indicated on the Bill;
- b) Any Outstanding Balance due that remains on an account after twenty-two (22) days from the Billing Date shall be considered overdue;
- c) A late-payment penalty or prompt payment discount may be added to the account as per the Fees and Charges Bylaw;
- d) A dispute over the accuracy of a Meter reading or an estimated Meter reading shall not permit or excuse a Customer from the requirements for payment of a Bill or any other requirements under this Bylaw; and
- e) Any Outstanding Balance due that remains unpaid after twenty-two (22) days from the Billing Date may be recovered by the City using debt collection procedures.

## 8.9 Electrical Service for Customer's Use

Electrical Service supplied to a Customer shall be for the use of that Customer only and only for the purpose for which the Customer applied. A person must not re-meter, sub-meter or sell Electricity from an Electrical Service to others unless the Customer is charging a tenant for Electricity provided on the Customer's Premises and is charging the same price for the Electrical Service as the City charges the Customer.

# **PART 9 – LIABILITY & RESPONSIBILITIES MAINTENANCE, VOLTAGE AND SUPPLY**

## 9.1 Voltage and Supply

The Penticton Electric Utility:

- a) Will supply nominal 60 hertz Alternating Electric Current to the Point of Delivery at the available phase and Voltage; and
- b) Shall determine the Voltage of the Electrical Service Connection in accordance with Schedule "B".

## 9.2 Quality of Supply

The Penticton Electric Utility does not guarantee the continued supply of its Voltage or frequency and is not responsible for damage caused by any variation from the standard nominal Voltage and frequency in Schedule "B" or from the CSA CAN3-C235-83 "Preferred Voltage levels for Alternating Current systems, 0 to 50,000V (2015)" standard; when occasioned by circumstances beyond their reasonable control.

## 9.3 No Guarantee of Supply

- a) The Penticton Electric Utility does not guarantee a constant supply of Electricity and is not responsible for any loss, injury, damage or expense caused by or resulting from any interruption, termination, failure or defect in the supply of Electricity, whether caused by the Penticton Electric Utility, its employees or agents, or otherwise;
- b) Planned Capital, Operating and Maintenance activities of the Penticton Electric Utility may require Power to be turned off or reduced to various Customers; this work will be done during Regular Business Hours. Where a Customer requests such planned activities to be done outside of Regular Business Hours, then, the Customer shall pay the actual costs of the work;
- c) Customers requiring a higher degree of security than that of normal supply, including but not limited to, an uninterrupted source of Power supply or a supply completely free from fluctuation and disturbances, are responsible to provide their own Power supply (such as, UPS, back-up or standby Equipment) or Power conditioning Equipment. Customers may require special protective Equipment on their Premises to minimize the effect of momentary Power interruptions; and
- d) Customers requiring a three-phase supply should install protective apparatus to avoid damage to their Equipment, which may be caused by the interruption of one or more phases, or non-simultaneous switching of phases of the Penticton Electric Utility Distribution System.

## 9.4 No Customer shall cause damage to the Penticton Electric Utility's Equipment by:

- a) Making unauthorized alterations to the Facilities or additions which result in the Customer's Connected Load being above that approved by the City;
- b) Allowing the malfunction of the Customer's Electrical Equipment;
- c) Allowing trees, other vegetation or any other object on private property that interferes with the Penticton Electric Utility's Equipment;
- d) Causing or permitting damage or defacement of the Penticton Electric Utility Equipment or the Customer's Equipment; or
- e) Not complying with any provision of this Bylaw.

- 9.5 The Owner or Occupier of a building must pay for the cost of the decontamination and for replacement or repair of any and all of the Penticton Electric Utility's Equipment, as a result of an incident at or near the Owner or Occupant's building, where the Penticton Electric Utility's Equipment have been damaged or contaminated by a hazardous substance or dangerous good.
- 9.6 Where it is determined that a Customer has tampered or interfered with the Penticton Electric Utility's Equipment or otherwise used the Electrical Service in an unauthorized way, all costs incurred by the Penticton Electric Utility in repair, replacement, installation, reinstallation or other remedial action shall be a debt of the Customer owed to the City and if not paid by December 31st of that year may be recovered by the City including as if for property taxes in arrears.
- 9.7 The Customer must pay to the Penticton Electric Utility all costs, damages, or losses arising from the Customer exceeding its Demand limit, including without limitation, direct or consequential costs, damages or losses arising from any penalty incurred by the Penticton Electric Utility for exceeding its Demand limit with the Penticton Electric Utility suppliers of Electricity.
- 9.8 Shared Property - Other Utilities
- Electrical Services under this Bylaw may sometimes be provided by the Penticton Electric Utility via property and Electrical Services provided by or shared with other communication and electric utility providers. It is a condition of Service that any loss or damages, direct or indirect, which may be due to any interruption in or failure to provide Electrical Service are not recoverable from the Penticton Electric Utility.
- 9.9 Customer Responsibilities
- The Customer or Occupier or Owner of the Premises must ensure that vegetation growing on its Premises is kept clear of Primary Voltage and Secondary Voltage lines. Three (3) Meters of clearance from Primary Voltage lines and one (1) Meter of clearance from Secondary Voltage lines must be maintained.

## **PART 10 – OFFENCES AND PENALTIES**

- 10.1 A person who contravenes, violates or fails to comply with any provision of this Bylaw, or who suffers or permits any act or thing to be done in contravention or violation of this Bylaw, or who fails to do anything required by this Bylaw, commits an offence and shall be liable, upon conviction, to a fine of not more than \$10,000.00 and to the cost of prosecution and any other penalty or order imposed pursuant to the *Community Charter* (British Columbia) or the *Offence Act* (British Columbia). The penalties imposed under this sub-section are in addition to and are not a substitute for any other remedy to a violation of this Bylaw.

- 10.2 Each day a violation of the provisions of this Bylaw occurs or is permitted to exist shall constitute a separate offence.

## **PART 11 – SEVERABILITY**

If a portion of this Bylaw is held invalid by a Court of competent jurisdiction, then the invalid portion must be severed and the remainder of this Bylaw is deemed to have been adopted without the severed section, subsection, paragraph, subparagraph, clause or phrase.

## **PART 12 – GENERAL PROVISIONS**

### **12.1 Notices**

Any notices, direction or other instrument required to be given by the City or by the Customer under this Bylaw shall be deemed to have been received on the following dates:

- a) If sent by electronic mail or facsimile - on the next business day following the date of transmission; or
- b) If delivered by hand - on the next business day following the date of delivery.

### **12.2 Unpaid Fees or Charges**

Where any unpaid fees or charges are added to the property taxes they shall thereafter accrue interest and be recoverable in the same manner as outstanding property taxes.

### **12.3 Schedules**

Schedules "A" and "B" are attached to and form part of this Bylaw.

## PART 13 – REPEAL

The Corporation of the City of Penticton Bylaw No. 2000-36, Bylaw No. 45, Bylaw No. 3794, and Bylaw No. 1277 together with all amendments thereto, is hereby repealed.

READ A FIRST time this 3 day of October, 2017

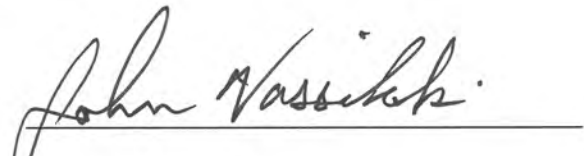
READ A SECOND time as amended this 6 day of February, 2018

READ A THIRD time this 6 day of February, 2018

RESCIND THIRD and give THIRD READING as  
AMENDED 5 day of February, 2019

RECEIVED the approval of the Minister of  
Municipal Affairs and Housing this 27 day of February, 2019

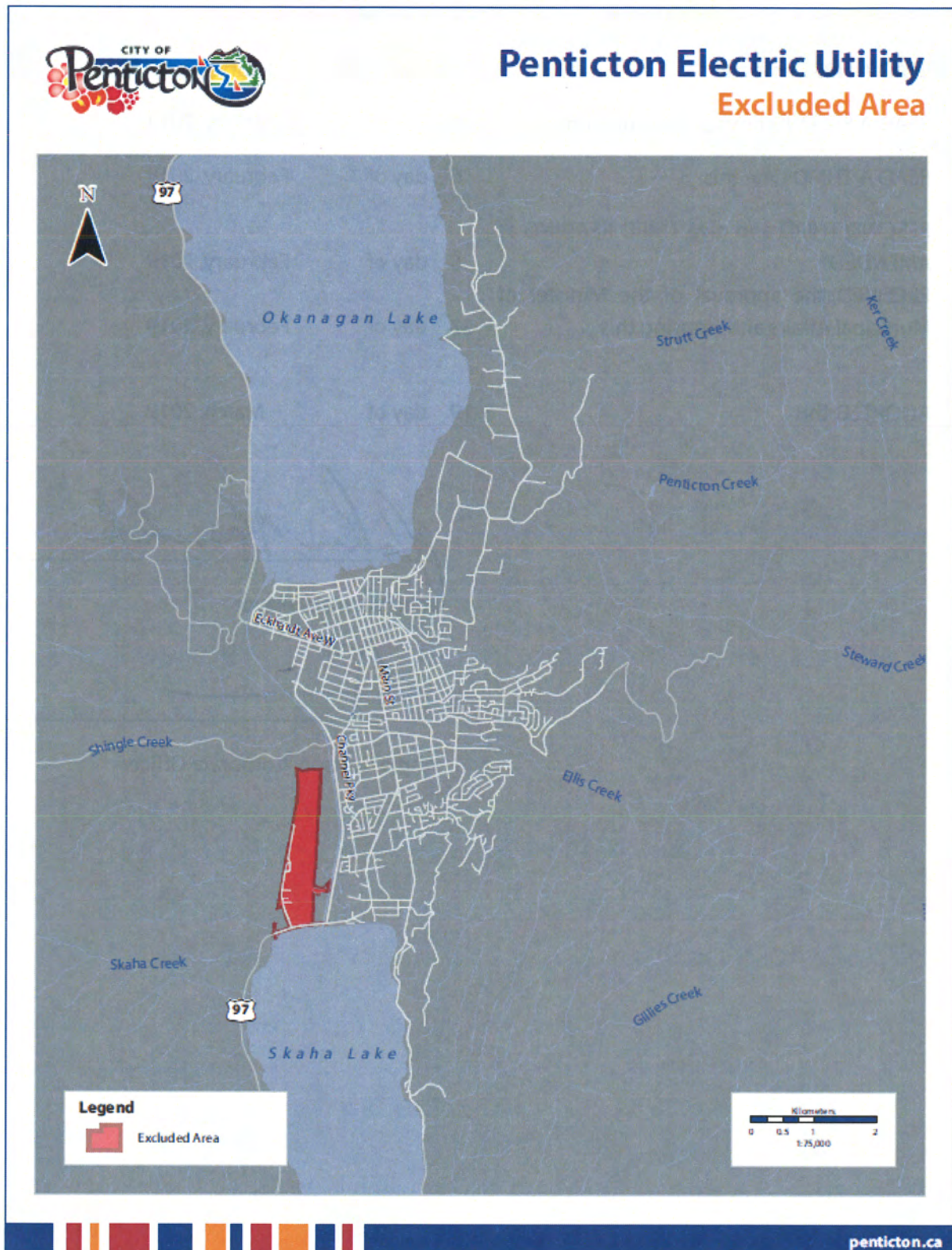
ADOPTED this 19 day of March, 2019

  
John Vassilaki, Mayor  
Angie Collison, Corporate Officer



## SCHEDULE "A"

### PENTICTON ELECTRIC UTILITY EXCLUDED AREA



## **SCHEDULE "B"**

### **ELECTRICAL SERVICE REGULATIONS AND SPECIFICATIONS**

#### **DISTRIBUTION ACTIVITIES – GENERAL**

##### **B.1 Nominal Secondary Supply Voltages: & Transformer Capacities**

The Penticton Electric Utility reserves the right to determine the supply Voltage of all Electrical Service Connections.

The following are the supply Voltage standards:

- a) From pole mounted transformers:
  - i) Single-Phase - 120/240 volts, 3 wire, maximum 100kVA Transformation capacity (Max. 600 Ampere Service – protected at 500 Amperes);
  - ii) Three-Phase - 120/208 volts, 4 wire, maximum 150kVA Transformation capacity (Max. 400 Ampere Service);
  - iii) Three-Phase - 347/600 volts, 4 wire, maximum 300kVA Transformation capacity (Max. 400 Ampere Service); and
  - iv) Delta Services are prohibited.
- b) From pad-mounted transformers:
  - i) Single-Phase - 120/240 volts, 3 wire, maximum 100kVA Transformation capacity (Max. 600 Ampere Service – protected at 500 Amperes);
  - ii) Three-Phase - 120/208 volts, 4 wire, maximum 750 kVA Transformation capacity (Max. 1,600 Ampere Service);
  - iii) Three-Phase - 347/600 volts, 4 wire, maximum 2,000 kVA Transformation capacity (Max. 2,000 Ampere Service); and
  - iv) Delta Services are prohibited.
- c) The City will not supply Transformation to a Customer from one Secondary Voltage to another Secondary Voltage;
- d) For loads or supply Voltages different from those listed in this section (e.g. 277/480 volts), the Penticton Electric Utility may require that a Customer supply their own Transformation Facilities and take Service at the available Primary Voltage; or supply their own Secondary Voltage conversion Transformation;



- e) All Facilities and Equipment to be connected to the City's Facilities must be in a condition that is approved by the Penticton Electric Utility. Installation must be carried out in a manner to ensure proper balancing of phases and circuits, and to ensure that the City's Equipment is not endangered or that no abnormal Voltage fluctuations are caused; and
- f) All three-phase, Facilities must be designed to prevent the load on the phase with the highest load exceeding that on the phase with the lowest load by more than ten (10%) percent.

## **B.2 Electrical Services, Inspections and Connections**

- a) All single-phase temporary and new residential Electrical Services shall be 120/240 volt 3-wire;
- b) Unless otherwise approved by the Penticton Electric Utility, any new and upgraded Electrical Services shall be provided as an Underground Service, with the installation of ducts, foundations, Service boxes and pads built to the Current standards and specifications of the Penticton Electric Utility;
- c) All Multi-unit Residential Premises must be serviced by one Point of Delivery, which shall be placed in a location approved by the Penticton Electric Utility and as close to the point of supply as possible and not in an area where the Equipment could be exposed to dangerous or hazardous conditions;
- d) The Penticton Electric Utility shall own all Penticton Electric Utility Equipment and Facilities;
- e) All Customer's Equipment is owned by the Customer and shall be installed in a manner acceptable to the Penticton Electric Utility and Technical Safety BC;
- f) When installing Penticton Electric Utility Equipment underground, duct banks shall be inspected and approved by the Penticton Electric Utility prior to the pouring of concrete and backfilling. The completed ducts must be brushed and mandrel tested by the contractor in the presence of the Penticton Electric Utility representative and shall be clear of all extraneous material. In the event that the ducts are blocked, the Customer will be responsible for clearing the ducts prior to the cable installations. Only qualified contractors having, at a minimum, a Class UR (Underground Raceway) Field Safety Representative certificate of qualification issued by Technical Safety BC can oversee the installation of the ducts. The contractor must not make any connections to existing concrete duct banks, Service boxes, transformers, and manholes without permission and supervision from the Penticton Electric Utility;
- g) Point of Delivery - In the case of an Underground three-phase Service, the structures protecting the Service from vehicular damage including the bollards are to be maintained by the Customer. The typical Point of Delivery on an Underground three-phase Service is the secondary spades of the pad-mounted transformer. Maintenance must be completed in co-ordination with the Penticton Electric Utility;
- h) Overlap of Electrical Services – In certain situations where an existing Service is being upgraded or relocated, the Penticton Electric Utility may allow two Services to be energized for a period of up to fifteen (15) days to provide the Owner with adequate time to transfer all

internal circuits to the new system. Prior to any overlap of Services, the Customer must obtain approval from the Penticton Electric Utility and Technical Safety BC. The Penticton Electric Utility reserves the right to disconnect the non-permanent Service should the fifteen (15) day overlap period be exceeded;

- i) Customer Equipment must not be extended across, under or over a street, lane, alley or other public or private space not owned by the Customer for the purpose of Servicing more than one Premise through one or more Meters; and
- j) It is the Customer's sole responsibility to acquire any easements or statutory rights of way required by the Penticton Electric Utility, to permit the installation of an Electrical Service to a Customer that is over real property not owned by the Customer. These easements or statutory rights of way must be registered in the Land Title Office prior to the installation of any Facilities and the Service being energized.

### **B.3 New and Upgraded Electrical Services**

Subject to section B.5 – "Notice Periods" of this Schedule, the Penticton Electric Utility will connect a new, or upgraded Electrical Service to the Owner's or Occupier's Premises, after receipt of:

- a) Payment of all connection and installation fees and charges;
- b) Proof of Technical Safety BC approval;
- c) Any other permits or approvals that may be required from the City or other levels of government;
- d) If required, a signed and registered statutory right of way in favour of the City; and
- e) A completed Service application and a Net Metering Interconnecting Agreement, where the Applicant has applied to install a Micro-DR System.

### **B.4 Load Increase and Notices**

- a) The Customer shall give the Penticton Electric Utility ten (10) days written notice of any load increase;
- b) The Penticton Electric Utility is not required to supply a Customer Electricity in excess of that previously agreed to by the Penticton Electric Utility; and
- c) The Customer is required to pay the cost of any alterations or upgrades to the Penticton Electric Utility's Facilities necessary to accommodate the Customer's increased Connected Load.

## **B.5 Notice Periods**

An Applicant must provide notice in writing to the Penticton Electric Utility for new or upgraded Electrical Services or to install a Micro-DR System in accordance with the following notice periods:

- a) Residential Electrical Service - thirty (30) days;
- b) Multi-unit Residential; Business and Commercial Electrical Services – six (6) Months;
- c) Industrial Electrical Service – twelve (12) Months. The Penticton Electric Utility has an obligation to notify FortisBC in writing of any anticipated additional single Connected Load in excess of 5,000kVA whether it be a new Customer or increased Connected Load from an existing Customer;
- d) Micro-DR System – six (6) Months. The Customer must obtain approval of the Penticton Electric Utility of a Micro-DR System, in advance of purchasing or installing Micro-DR Equipment; and
- e) Back-Up Generator > 1MW in size – Minimum twenty-five (25) Months. The Penticton Electric Utility has an obligation to notify FortisBC of any proposed generation resources greater than 1MW in size not less than twenty-four (24) Months before the construction of such generation in order to allow FortisBC to assess the impact of such addition to FortisBC's supply capability.

## **B.6 Meter Location**

- a) All Meters shall be installed by the Penticton Electric Utility, in a location approved by the Penticton Electric Utility;
- b) Meters shall not be installed in carports, breezeways or on decks or other similar areas;
- c) Meters shall be installed in locations that permit safe and unfettered access by employees or agents of the Penticton Electric Utility;
- d) The Penticton Electric Utility, at its sole discretion, may make exceptions to the general specifications for Meter Installations, where a standard location will cause design and installation difficulties, subject to the Meter remaining accessible to the Penticton Electric Utility at all times;
- e) The Penticton Electric Utility may require, at the Customer's expense, that the Customer relocate any Meter that is located in an area that cannot be conveniently accessed by the Penticton Electric Utility at all times, or is considered by the Penticton Electric Utility to be unsafe;

- f) The Penticton Electric Utility may refuse connection of any Electrical Service built in a location not approved by the Penticton Electric Utility;
- g) For single-phase 120/240V less than or equal to 200A and for 320 Ampere single-phase 120/240 Volt Residential services the following conditions for Metering apply:
  - i) 4 jaw socket type Meter bases are required and are to be supplied by the Customer in accordance with section B.8 of this Schedule;
  - ii) Unless otherwise approved in writing by the Electric Utility Manager, the Meter socket shall be located on an outside wall, surface mounted with sufficient clearance from the surface finish material to allow easy access to the Meter locking ring, and be within one Meter of the corner nearest to the point of supply;
  - iii) The Meter shall be installed on the supply side of the Electrical Service Entrance; and
  - iv) All Meter sockets shall be installed between 1.5 Meters and 1.8 Meters above final ground level to the center of the Meter;
  - v) Residential Type Use – Multiple Meters;
    - A. For Multi-unit Residential properties such as row housing, townhouses or condominium units, the Meter bases will normally be located outdoors and grouped in one common location where practical. Either "Gang Meter Base" installations or individual Meter base installations may be used depending upon the Penticton Electric Utility requirements; and
    - B. In instances where the potential for Equipment damage or vandalism has occurred or is likely to occur with the outdoor location of the Meters, the Penticton Electric Utility may require the multiple Meter bases to be located indoors in an Electrical Room.
  - vi) Commercial Type Use – Multiple Meters;
    - A. For Multi-unit commercial-use properties with up to three(3) electric Meters, including a House Meter (maximum 2 Metered units) may be located outdoors using a Gang Meter base and supplied by a single stack; and
    - B. Where the number of Metered units supplied by a 200 Ampere main Service exceed two (2) Metered units; an Electrical Room having a main Service entrance disconnect switch installed ahead of the splitter trough and Meters will be required.
- h) For three-phase, the following conditions for Meter locations apply:
  - i) Except in the instance of pad-mount Transformer Metering, the Meter shall be located on the load side of the Electrical Service Entrance for all Services;

- ii) Where the supply is from a four (4) wire 600/347 volt system, Metering shall be four (4) wire. Where the Customer does not require a neutral, an appropriately sized grounded circuit conductor meeting the requirements of the Electrical Code must be provided to all Meter cabinets or sockets. The neutral conductor is to be terminated in the socket (or cabinet) on an insulated neutral block and in accordance with the Electrical Code;
- iii) Primary Metering - Materials and Equipment for Primary Voltage Metering installations are to be designed, supplied and installed by the Customer. The Designs shall be submitted to the Electric Utility Manager for review and approval prior to any materials being ordered. All costs are to be paid for by the Customer;
- iv) Non-residential Meters located indoors are subject to the access provisions identified in section 6.2 of this Bylaw; and
- v) The location of the Electrical Room shall be approved by the Electric Utility Manager.
- vi) 208/120V Single-Phase Network Metering;
  - A. The Metering installation required for most Apartment Buildings is 208/120 volt "Network Type Metering" installed indoors. The Meters are 200 Ampere, two-phase three wire and 5-jaw self-contained Meters; and
  - B. Apartment Buildings will normally consist of 12 units or more. For Apartment Buildings with four (4) floors or less including the basement; all Meters are to be in one location on the ground floor. This location will be the main Electrical Service Entrance room or Electrical Room. For Apartment Buildings with more than four (4) floors, additional load distribution rooms will be allowed but must be spaced at no less than every third floor. These rooms must be kept locked at all times and be used only for the purpose of housing electric Metering and Equipment related to the electric distribution within the building
- i) Where an Electrical Meter cannot be reasonably accessed, the Penticton Electric Utility will apply the following procedure:
  - i) Penticton Electric Utility will mail a registered letter to either the Owner or Occupier of the Premises advising that disconnection of Service will take place if satisfactory access to the Meter is not established within five (5) days of the date of the letter;
  - ii) Penticton Electric Utility will disconnect the Service after the five (5) day period has expired if access to the Meter cannot be obtained by Penticton Electric Utility within the five (5) day period; and
  - iii) If a Service is disconnected under section B.6(i), reconnection of Service may occur only upon access to the Meter being provided and payment of the reconnection fee.



## **B.7 Metering**

- a) The type of Meter Socket and Base for all main switch ratings and supply Voltages are prescribed in section B.8 of this Schedule;
- b) The Penticton Electric Utility will supply and install a self-contained socket type Meter for Metering up to and including 200 Amperes and for 320 Ampere single-phase 120/240 Volt Residential services;
- c) For all Electrical Services in excess of 200 Amperes, where pad-mount transformer or 320 Ampere single-phase 120/240 Volt Residential Metering is not being used:
  - i) A 10-jaw transformer type Meter is used. The Meter is to be installed into a Meter base to be provided by the Penticton Electric Utility. Installation of the Meter base will be by the Applicant in an approved electrical room;
  - ii) Where instrument transformers are required, the instrument transformers shall be installed in a cabinet and the cabinet shall contain all of the Penticton Electric Utility's Metering Equipment for the main switch ratings and supply Voltages listed in section B.9 of this Schedule;
  - iii) The Customer is required to supply and install the instrument transformer cabinet including any conduit between the instrument transformer cabinet and the Meter base;
  - iv) Where instrument transformers are to be installed in the secondary bus of metal clad switchgear, the Penticton Electric Utility may request a copy of the shop drawings for review. In cases where the instrument transformers only Meter a portion of the metal clad switchgear, separate disconnect switches must be installed ahead of the Meter enclosure boxes or Meter bases so that the Service(s) can be de-energized without any interruption to the main Service supply; and
  - v) A Meter base will be supplied by the Penticton Electric Utility and installed by the Customer, located to the satisfaction of the Penticton Electric Utility and as close as possible to the instrument transformer cabinet. Generally, one revenue Meter only will be allowed. Additional revenue Meters will require authorization from the Electric Utility Manager.
- d) Meter centers installed for individual Metering applications must meet the requirements of section B.10 of this Schedule;
- e) The Penticton Electric Utility requires a House Meter on Multi-unit Residential and commercial buildings where common loads such as lighting and heating exist;
- f) The Penticton Electric Utility will not allow Bulk Meters for Premises in Multi-unit buildings unless it determines only a Bulk Meter is practicable including where:

- i) the Point of Delivery is at a Primary Voltage, and the Owner elects for the building to be served through one meter;
  - ii) A hotel with one large load unit and several small load units; and
  - iii) A building that easily permits amalgamation and division of individual units, such as a shopping centre or warehouse.
- g) If a Multi-unit building is served by an existing Bulk Meter, each unit must be assigned a civic address for billing purposes;
- h) Where individual Metering is used in a Multi-unit building, the Owner of the real property being provided with the Electrical Service, shall identify each Customer's Metered Service by address or unit number with a permanent non-fading legible label. Units shall be numbered and a floor plan shall be mounted in a suitable manner in each Electrical Room, indicating the area to which each Service box supplies Power;
- i) The Customer or Owner of the Multi-unit building shall ensure that each Metered Service identifying label accurately identifies the civic address or unit number associated with each Meter;
- j) The Customer shall provide wiring and fittings, satisfactory to the Penticton Electric Utility for the installation of each Meter; and
- k) In the case of damage to any Meter, the Penticton Electric Utility's cost of repairs or replacement and re-testing of the Meter will be Billed to the Owner or Occupier of the Premises.

## **B.8 Meter Sockets and Bases**

- a) Round Meter Bases are not permitted
- b) The following Meter Socket and Bases are required for Metering up to and including 200 Amperes and 320 Ampere single-phase 120/240 Volt Residential services for each of the five different combinations of Voltage, phase and number of wires set out below:

Voltage	Phase	Wire	Meter Socket* (See description below)	Maximum Service Switch Size Rating in Amperes (A)
120/240	1	3	i)	200
120/240	1	3	ii)	320



Voltage	Phase	Wire	Meter Socket* (See description below)	Maximum Service Switch Size Rating in Amperes (A)
208/120	2	3	iii)	200
208/120	3	4	iv)	200
600/347	3	4	iv)	200

\*Meter Socket and Base Descriptions

- i) Four (4) jaw socket type square – 100A/200A Overhead and Underground;
  - ii) Four (4) jaw socket type square – 320A Underground;
  - iii) Five (5) jaw socket type with the "5" jaw at the 9 o'clock position, comes with #12AWG copper white wire from "5" jaw to an insulated neutral block in the Meter socket/base; and
  - iv) Seven (7) jaw socket type with the "7" jaw at the 6 o'clock position, comes with #12AWG copper white wire from the "7" jaw to an insulated neutral block in the Meter socket/base.
- c) The following Meter Socket and Bases are required for Metering above 200 Amperes excluding the 320 Ampere single-phase 120/240 Volt Residential services for each of the three different combinations of Voltage, phase and number of wires set out below:

Voltage	Phase	Wire	Meter Socket Description (> 200 Amperes)
120/240	1	3	Five (5) jaw socket type with the "5" jaw at the 9 o'clock position, comes with #12AWG copper white wire from "5" jaw to an insulated neutral block in the Meter socket/base
208/120	3	4	Thirteen (13) jaw socket type with the "13" jaw at the 6 o'clock position, comes with #12AWG copper white wire from the "13" jaw to an insulated neutral block in the Meter
600/347	3	4	

## B.9 Instrument Transformer Cabinets

The following sizes of Instrument Transformer Cabinets are required for Electrical Service over 200 Amperes excluding 320 Ampere single-phase 120/240 Volt Residential services for each of the four different combinations of Voltage, phase, number of wires and Service size set out below:

Voltage	Phase	Wire	Service Size in Amperes	Instrument Transformer Cabinet (mm/in.)		
				Height	Width	Depth
120/240	1	3	201-600	610/24	610/24	254/10
208/120	3	4	201-600	760/30	760/30	254/10
208/120	3	4	601-1,600	915/36	915/36	305/12
600/347	3	4	201-2,000	915/36	915/36	305/12

## B.10 Meter Centers

Meter Centers may be used for installations of 750 volts or less, provided they meet the following specifications:

- Side-hinged doors or panels shall be installed over all sections of the switchboard where the Penticton Electric Utility may be required to work, such as Un-metered sections and those sections containing breakers, switches and Meter mounting devices. Hinged doors or panels shall have provisions for sealing or padlocking in the closed position. Where bolts are used, they shall be of a captive knurled type. The hinged covers over breakers or switches shall be constructed so the covers cannot be opened when sealed or padlocked;
- Breakers or switch handles shall have provisions for sealing or padlocking in the "off" position;
- Meter mounting devices shall be wired or connected on the load side of the breakers or switches (Cold Metering);
- Each combination Meter socket and breaker panel shall have adequate space to show the Customer street address and unit number, if any;
- The center of the top row of Meter sockets shall not be more than 1.8 m from the finished floor;
- The distance between horizontally or vertically adjacent Meter socket rims shall not be less than 150mm;
- The Meter mounting socket and sealing ring shall be acceptable to the Penticton Electric Utility; and

- h) Where a neutral is required, the Meter-mounting device shall have a pre-wired ungrounded neutral connection to the 5th or 7th terminal. The connection, if not made directly to the neutral bus, shall be not less than #12 AWG copper.

### **B.11 Pre-Payment for New, Upgraded Electrical Services or Service Extensions**

Pre-payment shall be required for any work performed by the Penticton Electric Utility for a new or upgraded Electrical Service application, as established in the Fees and Charges Bylaw, and the following conditions shall apply:

- a) For Jobs Requiring Payment of Flat Fee; and
  - i) The Customer or contractor must make payment prior to the Penticton Electric Utility crews being scheduled to complete assigned work.
- b) For Estimated Jobs Requiring Payment;
  - i) The cost amount calculated for pre-payment shall be based on the Penticton Electric Utility's estimated cost of materials, labour and Equipment to be supplied by the Penticton Electric Utility to upgrade or provide the Electrical Service plus an Administrative Fee as established in the Fees and Charges Bylaw;
  - ii) Transformer/Equipment Credits – Where the size of the existing Service is increased and will be supplied by Penticton Electric Utility owned transformer(s), the Customer may be credited the depreciated value of the existing Penticton Electric Utility owned transformer(s) or Equipment, if applicable. Where a Customer is serviced from a transformer/Equipment supplying multiple Customers, the transformer or Equipment credit will be a share of the depreciated value, based upon the number and capacity of Services connected to the transformer or Equipment. This credit will be incorporated into the estimate made to the Customer requesting connection, when applicable; and
  - iii) For estimated jobs, the Customer shall pay in a format deemed acceptable by the Chief Financial Officer and payment must be received in advance of the work being done.

### **B.12 Relocations**

- a) Once the request for relocation of distribution plant has been reviewed, and if the relocation is feasible, the Customer shall pay the total relocation costs for labour, labour saving devices, materials and applicable overheads or as otherwise defined in existing legislation; and
- b) The Penticton Electric Utility will not move Facilities or structures over certain routes when the moving or disconnecting of the Distribution System is not feasible.



### **B.13 Service Extensions and Upgrades**

Service Extensions and upgrades shall be made on the principle that the party causing the need for the extension or upgrade will pay for the cost of the extension or upgrade. A Customer or Applicant needing an extension or upgrade to an Electrical Service to their property or a development will pay the cost of the Distribution System upgrades needed to Electrically Service that property or development. Service Extensions shall be provided by the Penticton Electric Utility, its agents, or by the Customer's qualified contractor, built to the standards of the Penticton Electric Utility, and shall be subject to the following conditions:

- a) The Customer must pay for the costs of a Service Extension including but not limited to any fees outlined in the Fees and Charges Bylaw;
- b) The Applicant must supply the Penticton Electric Utility with all relevant information, including, but not limited to, all necessary easements, permits or statutory rights of way;
- c) Upon receipt of an application for a Service Extension, the Penticton Electric Utility will engineer and design the Extension or review a plan for approval by the Penticton Electric Utility provided by a professional engineer retained by the Applicant (hereinafter referred to as "the Design") and provide a quote of the estimated costs (hereinafter referred to as "the Estimate"). The Penticton Electric Utility, at its sole discretion, may require a legal survey, at the Applicant's expense, prior to commencing with any design;
- d) The cost of preparing the Design, including the costs of any revisions to the Design that are requested by the Applicant, will be included in the estimate;
- e) The Penticton Electric Utility may require that the Customer, at the Customer's sole expense, provide the Design. The Design must be completed by a professional engineer with experience in electrical design and submitted for review to the Penticton Electric Utility in an electronic format approved by the Penticton Electric Utility prior to issuance for construction. After any required revisions or corrections have been made by the Customer's designer, the Design may be approved for construction;
- f) Service Extensions must be constructed in accordance with the Design and in compliance with the Penticton Electric Utility's Overhead and Underground electrical distribution construction standards and material specifications;
- g) Prior to construction of a Service Extension or upgrade the Customer must pay in advance the estimated costs of the work;
- h) The Penticton Electric Utility shall determine the route or location of a Service Extension having regard to the City's future line extension or Distribution System development needs. The Customer shall be responsible for all civil work including the concrete encasement of ducts, foundations and pads associated with an underground facility;

- i) The City shall supply the transformer, if required, Electrical Service conductor and Metering Equipment for a new Electrical Service as per the Fees and Charges Bylaw;
- j) Service Extensions shall normally be constructed underground, but may be constructed overhead where such construction is in accordance with the City's Distribution System plans and the conditions in B.13 of this Bylaw.
- k) The Penticton Electric Utility shall own and maintain the Service Extension Facilities up to the Point of Delivery whether on public or private property;
- l) Where the Service Extension is on private property:
  - i) The Applicant may select the City or a qualified contractor, approved by the Penticton Electric Utility to construct the Service Extension to the standards of this Bylaw and the Penticton Electric Utility Construction Standards as amended from time to time;
  - ii) When the Applicant selects an authorized contractor to construct the Service Extension, the following conditions shall apply:
    - A. Prior to connection of the Service Extension to the Penticton Electric Utility's Distribution System, the Applicant shall pay to Penticton Electric Utility all costs of the Extension, including, but not limited to the costs and fees for design, engineering, surveying, permits, connection to the Penticton Electric Utility's Distribution System and inspection of the Service Extension; and
    - B. The Penticton Electric Utility may require a legal land survey of the location of the Service Extension, at the Applicant's expense, prior to connecting the Service Extension to the Penticton Electrical Utility's Distribution System.
  - iii) Prior to construction of the Service Extension, the Customer shall provide, to the satisfaction of Penticton Electric Utility, a statutory right of way in accordance with section B.14 of this Schedule.

#### **B.14 Statutory Right of Way**

A statutory right of way is required when an Applicant requires part of the Electrical Service for which they have applied to be installed on property owned by someone other than the Applicant that is not public highway or the Electrical Service for that Applicant exceeds 30m in length.

Where the supply of Electrical Service to a Customer requires a statutory right of way to be granted in favour of the City the following conditions apply to the statutory right of way:

- a) A statutory right of way must be provided by the Customer at the sole expense of the Customer;

- b) The Customer is responsible for rights-of-way clearing costs;
- c) On request, the Customer shall deliver to the City documents in a form satisfactory to the Penticton Electric Utility in the required manner, granting any required statutory right of way to the City;
- d) A statutory right of way may be in the form of a blanket statutory right of way. The statutory right of way may contain a sketch plan or a legally surveyed statutory right of way. If the City prepares the blanket statutory right of way, document costs will be paid for by the Customer;
- e) A surveyed statutory right of way must cover a minimum width of three (3) Meters on either side of the Penticton Electric Utility Facilities or works and provide ancillary access to the right of way;
- f) The Customer shall be responsible for obtaining a statutory right of way in the City's name, over other properties that may be necessary for the Penticton Electric Utility to provide Electrical Service to the Customer; and
- g) The property Owner is responsible for maintaining the right of way such that:
  - i) If overhead, the vegetation does not encroach closer than 3 Meters (10 feet) to the primary conductor and/or 1 Meter (3 feet) to the secondary conductors. Failure to maintain this safe clearance will result in Disconnection of the Electrical Supply as per section 5 of this Bylaw. All remediation costs will be borne by the Customer; and
  - ii) Heavy Equipment shall have road access to all poles and structures.

#### **B.15 Back-Up Generators**

- a) Customers with portable or permanently connected emergency generation capability used for emergency backup shall comply with all applicable criteria of the Electrical Code. In particular, the Customer shall ensure that Customer's emergency generation does not parallel with the Penticton Electric Utility's Distribution System without proper interface protection and does not adversely affect the Penticton Electric Utility's Distribution System; and
- b) Customers with permanently connected emergency generation Equipment shall notify the Penticton Electric Utility regarding the presence of such Equipment.



## **B.16 Power Quality**

- a) In response to a Customer Power quality concern, where the utilization of Electric Power affects the performance of Electrical Equipment, an investigative analysis will be performed to identify the underlying cause. Depending on the circumstances, this may include review of relevant Power interruption data, trend analysis, and/or use of diagnostic measurement tools;

If the problem lies on the Customer side of the system, the Penticton Electric Utility may seek reimbursement from the Customer for the costs incurred in its investigation;

- b) If an undesirable system disturbance is being caused by the Customer's Equipment, the Customer will be required to cease operation of the Equipment until satisfactory remedial action has been taken. If the Customer does not take such action within a reasonable time, the Customer's supply of Power may be Disconnected;
- c) If the Penticton Electric Utility determines that Consumer's Equipment may be the source causing unacceptable harmonics, Voltage flicker or Voltage level on Penticton Electric Utility's Distribution System; the Customer shall assist the Penticton Electric Utility in its investigation by providing required Equipment information, relevant data and necessary access for monitoring the Equipment; and
- d) When Customers plan to install large motors over 500 Horsepower, they must contact the Penticton Electric Utility to ensure the existing or new Services are sized correctly and that the Distribution System can supply the required starting Current.

## **B.17 Power Factor**

- a) Every Customer must regulate their load to maintain a Power Factor of not less than ninety (90%) percent;
- b) If Customers' Equipment results in a poor Power Factor (less than 90%), a Power Factor surcharge, as per the Fees and Charges Bylaw, may be applied and it is the Customer's responsibility to correct or improve the Power Factor;
- c) The surcharge shall be added to the Customer's Bill after the rates or minimum charges have been calculated and the surcharge will remain in effect until the Power Factor has been corrected; and
- d) Electrical Service shall not be provided to any Customer whose Load Power Factor is less than fifty (50%) percent.

#### **B.18 Load Fluctuations:**

- a) Every Customer must install and operate its motors, Micro-DR Systems, apparatus and other Electrical Equipment in a manner that will not cause fluctuations to the Penticton Electric Utility's line Voltage, or introduce any element into the Penticton Electric Utility's Distribution System which, in the Penticton Electric Utility's opinion, disturbs or threatens to disturb its Distribution System or the property or Electrical Service of any other Customer; and
- b) The Penticton Electric Utility may require the Customer at the sole expense of the Customer, to provide Voltage regulation Equipment and controls if Voltage fluctuations are equal to or greater than ten percent. The Penticton Electric Utility may refuse to provide Electrical Service or may suspend Electrical Service to the Customer until such Equipment is provided.

#### **B.19 Notice of System Interruptions**

- a) The Penticton Electric Utility cannot guarantee a supply that is free from interruption;
- b) It is necessary to occasionally interrupt a Customer's supply to maintain or improve the Distribution System, or to provide new or upgraded Service to other Customers. Where a Customer requests such activities to be done outside Regular Business Hours, then the Customer shall pay the Penticton Electrical Utility costs of carrying out the planned activities outside Regular Business Hours as per the Fees and Charges Bylaw;
- c) The Penticton Electric Utility will endeavour to provide the Customer with reasonable advance notice, of Service interruption except in cases of extreme emergency, involving danger to life and limb, or impending severe Equipment damage;
- d) The Penticton Electric Utility will endeavour to notify Customers prior to interrupting the supply to an individual Service. Where work involves a small number of Customers, the Penticton Electric Utility will attempt to notify Customers prior to disconnection for maintenance or repairs to the specific Service;
- e) If an unsafe or hazardous condition is found to exist, or if the use of Electricity by apparatus, appliances, or other Equipment is found to be unsafe or damaging to the Penticton Electric Utility or the public, Service may be discontinued without notice;
- f) Planned interruption times may change due to inclement weather or other unforeseen conditions. The Penticton Electric Utility shall not be held liable in any manner for failure to provide such notice of planned interruptions or any changes in schedule for planned interruptions;
- g) Depending on the outage duration and the number of Customers affected, local media channels may be used along with the City's website to advise the general public of the outage;

- h) In an emergency, the Penticton Electric Utility has the right to Disconnect Customers in response to shortage of supply; until or while repairs are made to either or both Penticton Electric Utility and Customer owned Equipment;
- i) A Customer or Joint Use Contact Agreement party are obligated to comply with reasonable and appropriate instructions from the Penticton Electric Utility during unplanned outage or emergency situations;
- j) The Penticton Electric Utility provides an after-hours emergency phone number with on-call personnel to assist in the event of an unplanned Power outage. When Power is interrupted, the Customer should first ensure that failure is not due to failed protection devices (i.e. fuses or breakers) within the installation. If there is a partial Power failure, the Customer should obtain the Services of an electrical contractor to carry out necessary repairs. If, on examination, it appears that the Penticton Electric Utility's main source of supply has failed, the Customer should report these conditions at once to the Penticton Electric Utility; and
- k) Customers who require an uninterrupted source of Power for life support Equipment must provide their own Equipment for these purposes.

## **B.20 Primary Voltage Supplied Customers**

- a) The Customer is required to bring out a neutral conductor for connection to the system neutral. If not required for Customer's use, this neutral shall be terminated to the Customer's station ground system.
- b) The Customer is responsible to supply a point of attachment within a distance of 30 Meters from the property line, where an overhead Primary Voltage Service is provided. This point of attachment may be a Service pole or approved structure.
- c) As with all Services, the Penticton Electric Utility will not connect or energize the Customer's substation until:
  - i) A declaration has been received in accordance with the Safety Standards General Regulation;
  - ii) The Penticton Electric Utility has inspected the Service;
  - iii) The Customer has provided a pre-Service report to the Penticton Electric Utility that has been sealed by a Professional Engineer licensed in the Province of British Columbia; and
  - iv) A Joint Operating Order has been signed by the Customer and the Penticton Electric Utility. A Joint Operating Order is a document that is used to describe the isolation points and safety procedures along with contact names and numbers of individuals responsible for operating the Customer Owned Equipment described in the Order.

## **B.21 Micro-DR Service Requirements**

- a) The Penticton Electric Utility shall determine the number or capacity of Micro-DR units on any part of their Distribution System;
- b) The Penticton Electric Utility maintains the right to disconnect, without liability, the Micro-DR for any issues relating to safety and reliability;
- c) The Micro-DR Customer must apply to the Penticton Electric Utility using the appropriate "Net Metering" application form;
- d) The Micro-DR System must be located on the Customer's Premises;
- e) Installation of the Micro-DR System shall not commence until the Design has been approved by the Electric Utility Manager;
- f) Design Requirements:
  - i) The Micro-DR output is at 750 volts or less and the Micro-DR System is not larger than 50kW, without written approval from the Electric Utility Manager;
  - ii) The Micro-DR System must meet the anti-islanding requirements of CSA standard C22.2 No 107.1 and be capable of isolating the Net Metering System from the Penticton Electric Utility System;
  - iii) The design shall include a disconnect that:
    - A. Bears evidence of either a mark or a label of a certification agency accredited by the Standards Council of Canada or an approval label issued by British Columbia Safety Authority;
    - B. Meets the intent of Section 84 of the *Canadian Electrical Code*;
    - C. Is accessible by the Penticton Electric Utility staff at all times;
    - D. Has a provision for locking in the open position; and
    - E. Provides a visual indication while in the open position; and
  - iv) The Micro-DR System must comply with CSA standard CAN/CSA-22.2 No. 257 Interconnecting Inverter-based Micro-Distributed Resources to Distribution Systems.
- g) Energization and Operational Requirements:
  - i) The Micro-DR Owner may not commence Parallel Operation of its generating Equipment unit the completed installation has been inspected and final written approval has been given by the Electric Utility Manager;

- ii) The following information and procedures must be provided and in place before a Micro-DR System will be allowed to be connected to the Penticton Electric Utility's System:
  - A. A complete set of specifications for the installation; including copies of the manufacturer's technical manuals and specifications for the proposed DR Equipment;
  - B. A complete set of single line diagrams and protection settings;
  - C. A complete set of manufacturers' commissioning procedures; and
  - D. An executed "Net Metering Interconnection Agreement".
- iii) The Penticton Electric Utility maintains the right to inspect the Micro-DR Facilities with reasonable prior notice and at a reasonable time of day;
- iv) The Interconnection of the Customer's generating Equipment with the Penticton Electric Utility's Distribution System shall not cause any reduction in the quality of Service being provided to other Customers;
- v) The Micro-DR System Owner will not be permitted to energize a circuit de-energized by the Penticton Electric Utility; and
- vi) The Micro-DR System Owner is responsible for commissioning in accordance with the manufacturers' procedures and periodic maintenance of the Interconnection Equipment. Commissioning and maintenance must be performed by competent personnel. A copy of the commissioning and maintenance test reports must be retained by the Micro-DR System Owner and made available to the Penticton Electric Utility upon request.

## **B.22 Subdivisions – Residential**

Residential Subdivisions are required to comply with Electric Facilities requirements in the Subdivision and Development Bylaw, Section 00600 – Electrical in addition to all parts and Schedules of this Bylaw.



### **B.23 Subdivisions – Strata Developments**

Strata developments will be electrically serviced Underground subject to the following:

- a) All of the Electrical Distribution Infrastructure including but not limited to concrete encased ducts, vaults, transformers, high Voltage cables, secondary distribution cables, Service boxes, electrical Meters, will be owned and maintained by the Penticton Electric Utility and must be installed in a statutory right of way in favour of the City over the strata lands including strata roadways;
- b) The Developer or Customer will own and maintain the Meter bases, the underground Service conductors between the Service boxes/transformers and the Meter bases, the street lighting and other conductors supplying Power to common areas such as roadway lighting, parking lot lighting, irrigation systems and security gates; and
- c) The Electrical Consumption for all privately owned street lighting along with any other common loads will be Metered by a House Meter.



## Application for Net Metering

The following information is required by The City of Penticton for each request for an interconnected Net Metering System. This form shall be submitted to:

**The City of Penticton**  
**Building Dept.**  
171 Main St.  
Penticton, BC V2A 5A9

**NOTE:** Prior to completing this application, the applicant should read and be familiar with the following documents (available in a comprehensive Net Metering Application package – contact [250-490-2535](tel:250-490-2535) to receive a copy of the package or download from the City website at <https://www.penticton.ca/EN/main/departments/electricity/net-metering.html>):

- The current City of Penticton Electric Utility Services Bylaw
- The current City of Penticton Fees & Charges Bylaw
- The City of Penticton Net Metering & Interconnection Guidelines
- The City of Penticton Net Metering Interconnection Agreement

The City of Penticton Electric Utility reserves the right to request any additional information from the applicant prior to the approval of this application.

Will the Net Metering System be installed as part of a new or existing service? (Check one and list service size)

New ☐ Existing ☐ Service Size \_\_\_\_\_ amps Service Voltage \_\_\_\_\_ volts

### **Applicant Information**

Customer Name: \_\_\_\_\_

Customer Address: Street \_\_\_\_\_

City: \_\_\_\_\_ Province: \_\_\_\_\_ Postal Code: \_\_\_\_\_

Bus. Phone Number: (       ) \_\_\_\_\_ Home Phone Number: (       ) \_\_\_\_\_

Mailing Address (If different from above):

Street: \_\_\_\_\_

City: \_\_\_\_\_ Province: \_\_\_\_\_ Postal Code: \_\_\_\_\_



**Consultant, Contractor or Installer**

Name: \_\_\_\_\_

Phone Number: \_\_\_\_\_

**Site Information**

Site Location: (address) \_\_\_\_\_

City of Penticton Electrical Account #: \_\_\_\_\_ City of Penticton Electrical Meter #: \_\_\_\_\_

Anticipated Date of Interconnection: \_\_\_\_\_

Utility Accessible Manual Disconnect Location: \_\_\_\_\_

**Generator Specifics (as applicable)**

Generator Type (Synchronous, Induction, Inverter): \_\_\_\_\_

Energy Resource (Wind, Solar, Hydro, Biogas): \_\_\_\_\_

Photovoltaic Panel Manufacturer and Model: \_\_\_\_\_

Wind Turbine/Generator Manufacturer and Model: \_\_\_\_\_

Micro-turbine Manufacturer and Model: \_\_\_\_\_

Nominal Ratings (kW, kVA, Volts, Power Factor): \_\_\_\_\_

Single or Three Phase: \_\_\_\_\_

**Grid-Tie Inverter (if applicable)**

Make \_\_\_\_\_ Model \_\_\_\_\_

Rated Capacity \_\_\_\_\_ Output Voltage \_\_\_\_\_ 1 or 3 Phase: \_\_\_\_\_

Storage Batteries: Yes No (circle one)



**Line Diagram and Site Plan**

It is the policy of The City of Penticton that a line diagram of the installation and a site plan be sent in with every application. When submitting, be sure that the drawings are securely fastened to this document (a staple, binder, etc.).

**Owner Certification**

I hereby certify that this application form has been filled out correctly and accurately.

Owner (signed): \_\_\_\_\_

Date signed: \_\_\_\_\_



## NET METERING INTERCONNECTION AGREEMENT

**THIS Agreement** is dated and effective the \_\_\_\_\_ day of \_\_\_\_\_, 2019.

BETWEEN

**THE CORPORATION OF THE CITY OF PENTICTON**  
(the "City")

AND

\_\_\_\_\_  
(the "Customer")

**WHEREAS** the Customer wishes to connect its Net Metering System ("NMS") which generates electricity to the City's electrical distribution system;

**AND WHEREAS** under the City's Electric Utility Services Bylaw No. 2017-44 entry into a Net Metering Interconnection Agreement is required prior to connecting an NMS;

**NOW THEREFORE THIS INDENTURE WITNESSES** that in consideration of the payment of Ten Dollars (\$10.00) and the promises and mutual covenants and agreements herein contained, and other good and valuable consideration (the receipt and sufficiency of which is hereby acknowledged), the parties covenant and agree as follows:

### 1. Net Metering

For the purposes of this Agreement,

- (a) "Bylaw" means the City's Electric Utility Services Bylaw No. 2017-44, as amended or replaced from time to time;
- (b) "Net Metering" means a program offered by the City to allow customers who install net metering systems to offset a portion of the cost of electric energy provided by the City by returning energy generated that is in excess of their current requirements back into the City's electric supply system; and
- (c) "NMS" means the net metering equipment described in the attached Schedule "A"

### 2. Net Metering System

The Customer may only attach as part of its net metering system the equipment described in Schedule "A".

### 3. System Certification



The Customer hereby represents and warrants to the City that the NMS is the property and sole responsibility of the Customer and that it has been installed and approved under a permit issued by the British Columbia Safety Authority ("Technical Safety BC").

#### **4. Inspection**

Prior to the interconnection and operation of the Customer's NMS, and at any time thereafter, subject to 24 hours' notice, the Customer shall permit the City and any other government authority having jurisdiction, to inspect and test the NMS.

#### **5. Connection**

The Customer shall only connect and operate the NMS after:

- (a) it has been inspected by the City and any other governmental authority having jurisdiction that may be required; and
- (b) the City has approved a service application under the Bylaw.

#### **6. Disconnection**

The City shall have the right to disconnect the NMS from the City's electrical supply system or reduce the output of the NMS in any of the following circumstances:

- (a) as permitted under the Bylaw;
- (b) when necessary in order to maintain safe and reliable electrical operating conditions;
- (c) to maintain compliance with prudent electrical practices, including but not limited to emergency situations, forced outages, force majeure, acts of nature;
- (d) to prevent or avoid damage or injury to any person or property; or
- (e) if in the City's sole judgment, the operation of the NMS at any time adversely affects the operation of the City's electrical system or the quality and reliability of the City's electrical service to other customers.

The NMS shall remain disconnected until the City is satisfied in its judgment that the condition(s) causing the disconnection have ended or have been corrected.

#### **7. Safe Operation**

The Customer acknowledges having received instructions on the safe operation of the NMS and shall operate the NMS only in accordance with those instructions.

#### **8. City's Bylaw**

It shall be the responsibility of the Customer to ensure that the NMS and its use of the NMS complies at all times with the Bylaw as amended or replaced from time to time, and any other City bylaws that pertain in any manner to the NMS.

The City shall reimburse the Customer for any electricity that the Customer provides to the City through the NMS in accordance with the relevant provisions of the Bylaw, as amended or replaced from time to time.

## **9. Term and Termination**

This Agreement shall become effective when signed by the Customer and the City and shall remain in effect indefinitely thereafter, until terminated as follows:

- (a) the Customer elects to terminate this Agreement by giving Thirty (30) days prior written notice to the City;
- (b) the City elects to terminate this Agreement by giving Ten (10) days prior written notice of termination to the Customer if the Customer is in default of any of its obligations under this Agreement and such default is not cured within Thirty (30) days after written notice of the default has been given to the Customer by the City;  
or
- (c) if the City discontinues its net metering program (30 days notice).

## **10. Indemnity and Liability**

The Customer covenants and agrees to release, indemnify and save harmless the City, its elected and appointed officials, employees and agents from any and all loss, liability, damage, claim, cost, charge, demand, or expense, (including any direct, indirect or consequential loss, liability, damage, claim, cost, charge, demand or expense, including legal fees) whatsoever that the Customer or anyone else may sustain, including for injury or death to persons, including employees of the City, and damage to property arising out of or in connection with:

- (a) the engineering, design, construction, maintenance, repair, operation, supervision, inspection, testing, protection or ownership of the NMS; and/or
- (b) the making of replacements, additions, betterments to, or reconstruction of the NMS;
- (c) a breach in this Agreement;
- (d) the use of the Lands contemplated under this Agreement; and
- (e) restrictions or requirements under this Agreement.

## **11. Covenant**

The Customer covenants and agrees that at all times that the NMS is connected to the City's electrical distribution system, to only use or permit the use of the NMS on the lands for the purpose of generating electricity through a renewable energy source and transferring such electricity to the City's electrical distribution system in accordance with the following conditions:

- (a) unless otherwise consented to in writing by the City, such consent not to be unreasonably withheld, the Customer shall not use any equipment, works, devices or machinery other than the NMS to generate electricity and transfer it to the City's electrical distribution system;
- (b) the NMS shall comply with all relevant Canadian Electrical Code and Canadian Standards Association standards and requirements;
- (c) the Customer shall ensure that the interconnection of the NMS with the City's electrical distribution system shall at no time cause a reduction in the quality of electrical service to any other lands serviced by the City's electrical utility;
- (d) the Customer shall at all times operate the NMS in a manner that will not cause damage or injury to any person, property or the City's electrical distribution system. Without limiting the foregoing, the Customer shall at all times operate and maintain the NMS in accordance with all manufacturer's instructions, and all laws, bylaws, and guidelines of all relevant public authorities, including the City.

12. Nothing contained or implied in this Agreement shall prejudice or affect the rights and powers of the City in the exercise of its functions under any public or private statutes, bylaws, orders and regulations, including the Bylaw, as amended or replaced from time to time, all of which may be fully and effectively exercised in relation to the Land as if the Agreement had not been executed and delivered by the Customer. Without limiting the foregoing, nothing contained in this Agreement affects the rights and powers of the City under the Bylaw, including if the Customer fails to comply with any aspect of the Bylaw.

## **13. Application**

This Agreement is applicable only to the NMS.

## **14. Notices**

The address for service of any notice pursuant to this Agreement shall be as follows:

### **To the City:**

171 Main Street  
Penticton, BC V2A 5A9

### **To the Customer:**

and any notice, advice or report shall be in writing and may be served by delivering the same or by mailing the same first class registered post, postage prepaid in an envelope properly addressed to the party to whom the notice is to be given at his/her address for service above, and shall be deemed to have been received on the third business day after the mailing thereof. Provided, however, that any notice may be served by leaving the same at the party's address set forth above and such leaving shall constitute personal service. In the event of actual or threatened postal strikes or disruptions of postal service, notice shall be by such delivery or leaving.

## 15. Interpretation

For the purposes of interpretation, the singular shall include the plural and vice versa, words herein importing gender shall be deemed to be the other gender or the body corporate and vice versa, and all legal rights and obligations hereunder shall be determined in accordance with the laws of the Province of British Columbia. Any reference to any statute or ordinance shall be deemed to be a reference to such statute or ordinance as it may be amended or replaced with similar legislation from time to time. Reference to any default shall also include repudiation. Headings are inserted for convenience of reference only and shall not constitute part of this Agreement for any other purpose. In the event more than one Customer shall have executed this Agreement, their liability shall be joint and several.

**IN WITNESS WHEREOF** the parties hereto have hereunto executed this agreement as of the date and year first above written.

### THE CORPORATION OF THE CITY OF PENTICTON

by its authorized signatories:

\_\_\_\_\_  
**John Vassilaki, Mayor**

\_\_\_\_\_  
**Angie Collison, Corporate Officer**

**SIGNED, SEALED AND DELIVERED** )

)

)

)

\_\_\_\_\_  
Name

)

)

)

\_\_\_\_\_  
Address

)

)

)

\_\_\_\_\_  
Occupation

)

)

## SCHEDULE "A"

### Section 1 Customer Information

Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Street Address: \_\_\_\_\_

Daytime Phone: \_\_\_\_\_ Evening Phone: \_\_\_\_\_

City of Penticton Account Number (from Utility Bill, if known): \_\_\_\_\_

### Section 2 Net-Metering Facility Information

Generator Size (Kw AC): \_\_\_\_\_ Inverter Manufacturer: \_\_\_\_\_

Inverter Model #: \_\_\_\_\_ Inverter Location: \_\_\_\_\_

PV Module Brand & Model No. (if applicable): \_\_\_\_\_

### Section 3 Certification(s)

The Net Metering System of the above described Customer meets the requirements of the City of Penticton Electric Utility Services Bylaw.

Signature (Vendor or Installer): \_\_\_\_\_ Date: \_\_\_\_\_

Name (Printed): \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_





## Net Metered Micro-DR System Testing Checklist

After approval from Electric Utility Manager and completed Net Metering Agreement

**\*It is emphasized that these requirements are general and may not cover all details in specific cases.\***

### System:

- \_\_\_ Is the Micro-DR system inverter-based?
- \_\_\_ Is the Micro-DR system located on the customer's premises?
- \_\_\_ Has the Micro-DR system been certified (eg. CSA, UL etc.)?
- \_\_\_ Have all necessary permits been applied for and received (eg. Building, Electrical etc.)?

### Labelling:

- \_\_\_ Is there a warning notice of an interconnecting system on the main panel?
- \_\_\_ Is there a warning notice of an interconnecting system on the meter?
- \_\_\_ Is a permanent legible single line installed in a conspicuous location near the meter?

### Disconnect Switch:

- \_\_\_ Is there a manual disconnect present that provides an isolation point between the Micro-DR system and the distribution system?
  - \_\_\_ Is the disconnect accessible?
  - \_\_\_ Is the disconnect certified (eg. CSA, UL etc.)?
  - \_\_\_ Does the disconnect switch have a provision for locking in the open position?
  - \_\_\_ Does the disconnect switch provide visual indication of being in the open position?

### Anti-islanding Test:

- \_\_\_ Open disconnect and verify the inverter ceases producing energy within 2 seconds. Does the anti-islanding protection function correctly?
- \_\_\_ Close the disconnect. Does the anti-islanding protection function correctly?

### Documentation:

- \_\_\_ Is there a complete set of specifications for the installation?
- \_\_\_ Is there a complete (set of) single line diagram(s)?
  - \_\_\_ Does the location of the disconnect switch match the single line diagram(s)?