

# Net Metering Connection Agreement

In consideration of Essex Powerlines Corporation (“Essex Powerlines”) agreeing to allow you to connect your 500 kW or smaller generation facility to Essex Powerlines’ distribution system, Essex Powerlines requests that you understand and accept the following terms and conditions:

## 1.0 Eligibility

- 1.1 Your generation facility must generate electricity solely from wind, a drop in water elevation, solar radiation, an agricultural bio-mass resource or any combination of the foregoing.
- 1.2 The electricity generated by your generation facility must be primarily for your own use.
- 1.3 The maximum cumulative output capacity of the equipment used to generate electricity shall be no greater than 500 kW based on the rated maximum output capacity of the equipment.
- 1.4 You agree that the connection of your generation facility to Essex Powerlines’ distribution system shall also be bound by the requirements of the *Distribution System Code* and Essex Powerlines’ Conditions of Service.
- 1.5 You are not participating in Ontario’s Standard Offer Program or any other program wherein you will be paid or receive some other form of consideration for the electricity generated by your generation facility.

## 2.0 Technical Requirements

- 2.1 You agree to have special transfer and isolating capabilities installed on your generation facility if you wish to run it during a power outage affecting Essex Powerlines’ distribution system. You also agree that your generation facility must be disconnected from Essex Powerlines’ distribution system during such an outage.
- 2.2 You have installed an isolation device satisfying Section 84 of the Ontario Electrical Safety Code and agree that Essex Powerlines may operate your isolation device as required for the maintenance and repair of the distribution system.
- 2.3 You agree to have regular scheduled maintenance performed on your generation facility in order to assure that connection devices, protection systems, and control systems are maintained in good working order and in compliance with all applicable laws, statutes, codes, licensing requirements, directives, rules, regulations, protocols, policies, orders, injunctions, rulings, awards, judgments or decrees or any requirement or decision or agreement with or by any government or government department, commission, board, court authority or agency.
- 2.4 You agree to meet the requirements as outlined in the “Technical Requirements for Generators Connecting to Essex Powerlines’ Distribution System” document. Additional requirements may be necessary to address unique situations, and Generators will be advised of any additional requirements at the appropriate assessment stage.

## 3.0 Liabilities

- 3.1 You covenant and agree that the design, installation, maintenance, and operation of your generation facility will not jeopardize the safety and security of both the generation facility and Essex Powerlines’ distribution system. This includes, but is not limited to, automatic disconnection of your generation facility from Essex Powerlines’ distribution system, as per Essex Powerlines’ generator protective relay settings, in the event of a power outage affecting Essex Powerlines’ distribution system or any abnormal operation of Essex Powerlines’ distribution system. You acknowledge and agree that the protective relay settings of your generation facility are as specified in tables 1 and 2 of this Agreement.
- 3.2 You acknowledge and agree that in the event Essex Powerlines, in its sole discretion, determines that your generation facility is damaging and/or is producing adverse effects on other Essex Powerlines customers or on Essex Powerlines’ distribution system assets, you will disconnect your generation facility immediately from Essex Powerlines’ distribution system and correct the problem at your expense and you will indemnify and save harmless Essex Powerlines for all such damages and/or adverse effects.
- 3.3 Notwithstanding the generality of Section 3.2, you acknowledge and agree that in cases where your generation facility is connected to an Essex Powerlines transformer that you are responsible for and will indemnify Essex Powerlines for any and all damage to Essex Powerlines’ equipment caused by the operation of your generation facility.

#### **4.0 Compensation and Billing**

4.1 If you purchase electricity from Essex Powerlines you agree that to be billed on a net metering basis, the following applies:

4.1.1 Essex Powerlines will not pay you for any excess generation that results in a net delivery of energy to Essex Powerlines beyond a 12 month period.

4.1.2 Cumulative excess generation can only be carried over for a period of up to 12 months to offset your future electricity costs.

4.1.3 You will be billed monthly if your generation facility rating is above 10 kW.

4.1.4 If your net consumption for a billing period is zero, or results in a credit, the delivery portion of your bill will not include kilowatt-hour based charges.

4.2 If you have a contract with an electricity retailer, you agree that the following applies:

4.2.1 You are billed under the bill-ready form of distributor-consolidated billing pursuant to the *Retail Settlement Code* ; and

4.2.2 You will not be eligible to be billed on a net metering basis unless the retailer confirms to Essex Powerlines that you and the retailer have an agreement allowing you to return eligible electricity to the retailer for billing on a net metering basis.

4.3 If your meter is read on a quarterly or annual basis, you agree to provide meter readings to Essex Powerlines in the manner and on the schedule specified by Essex Powerlines to calculate your bill when there is no scheduled meter read. You acknowledge in the event that we have not read your meter during the billing period or you have not provided suitable meter readings, Essex Powerlines will bill you as if you have not consumed or returned any electricity. Once an actual meter read is performed, Essex Powerlines will bill you on your actual consumption and credit you for electricity returned. To determine the month in which the value of your accrued electricity credits is reduced to zero, Essex Powerlines will pro-rate the electricity you use and return based on the actual meter readings. For example, we would use your most recent actual meter reading and subtract it from your last actual meter reading to determine your average use and return per day during the billing period.

4.4 If you are a GST registrant, you are required to charge Essex Powerlines for GST on the electricity you generated for input into Essex Powerlines' distribution system. Essex Powerlines is also required to bill you for GST on the amount of electricity you used from Essex Powerlines' distribution system. Both amounts of GST will be shown on your bill. Essex Powerlines is not permitted to "net" the amount of electricity you generated against what you used for the calculation and remittance of GST. Each month, if the GST charged by Essex Powerlines exceeds the GST you charge Essex Powerlines, you will pay the net amount of GST to Essex Powerlines. However, if the GST charged by Essex Powerlines is less than the GST you charge Essex Powerlines, Essex Power will credit the net amount of GST against other charges included on that bill.

In each case, you will report the GST amount you charge Essex Powerlines on Line 103 of the GST Return and, if you are eligible to claim GST paid to Essex Powerlines as an input tax credit, the GST you are charged by Essex Powerlines will be reported on Line 106. You will either pay the difference to the Receiver General when you file your GST return or claim a refund if your total credits exceed the taxes you collected. You may wish to consult your accountant about GST treatment.

4.5 If you are not a GST registrant, Essex Powerlines is required to charge GST for the electricity you used from Essex Powerlines' distribution system. Essex Powerlines is not permitted to net the amount of electricity you generated against what you used for the calculation and remittance of GST.

#### **5.0 Connection Costs**

5.1 You agree to pay for the actual cost of modifications and upgrades to the distribution facilities required to connect your generation facility. The amount to be charged to construct the expansion to connect a generation facility to Essex Powerlines' distribution system shall not exceed your share of the present value of the projected capital and on-going maintenance costs for the equipment. Projected revenue and avoided costs from the generation facility shall be assumed to be zero. The methodology and inputs used to calculate this amount are set forth in Appendix B of the *Distribution System Code* .

#### **6.0 Future Charges and Repayment of Metering Costs**

6.1 You agree to pay, if required, any current or future charges or tariffs as approved by the OEB with respect to the connection of your generation facility to Essex Powerlines' distribution system.

6.2 If you participate, at any time, in Ontario's Standard Offer Program or any other program that may be offered wherein you will be paid or receive some other form of consideration for the electricity generated by your generation facility, you agree to reimburse Essex Powerlines any costs incurred by Essex Powerlines if Essex Powerlines installed a meter at Essex Powerlines' under expense the Net Metering program or reimbursed you any amounts associated with your meter installation.

## 7.0 Termination

- 7.1 You may terminate this Agreement at any time by providing Essex Powerlines with 90 days prior written notice.
- 7.2 You agree that Essex Powerlines reserves the right to terminate this Agreement on 30 days prior written notice:
- (a) if Essex Powerlines discontinues the Net Metering program; or
  - (b) if you breach a term of this Agreement and do not remedy the breach within 30 days of receiving written notice from Essex Powerlines of the breach.
- 7.3 You acknowledge and agree that upon termination of this Agreement, you must either disconnect your generation facility from Essex Powerlines' distribution system in a timely fashion and to Essex Powerlines' satisfaction; or where you qualify, commence participating in Ontario's Standard Offer Program or any other program that may be offered wherein you will be paid for or receive some other form of consideration for the electricity generated by your generation facility.
- 7.4 Furthermore, you acknowledge and agree that if this Agreement is terminated, you may not be permitted to return eligible electricity to Essex Powerlines for the purpose of being billed on a net metering basis for 12 months after the termination:
- (a) unless the terminated agreement existed on or is the renewal of an agreement that existed on October 24, 2005; and
  - (b) at the same time you give notice of termination or by no later than 10 business days following receipt of termination by Essex Powerlines, you request, in writing, that you be allowed to return eligible electricity to Essex Powerlines for the purpose of being billed on a net metering basis.

## 8.0 General

### You agree that:

- 8.1 This Agreement shall be binding upon you and your heirs, executors, administrators, successors and assigns.
- 8.2 This Agreement shall be governed by and interpreted in accordance with the laws of the Province of Ontario and any action or proceeding brought to interpret or enforce this contract shall be commenced in the court of Ontario and not elsewhere.
- 8.3 None of the terms and conditions of this Agreement shall be modified or waived by any agreement or representation of any agent or employee of Essex Powerlines unless by proper written authority.

I understand, accept and agree to comply with and be bound by the above terms and conditions governing the connection of my generation facility to Essex Powerlines' distribution system.

Customer Signature:

Date:

*For office use: Station*

*Feeder*

*Date Connected*

*Meter: Dual Register*

*Interval Single Phase*

*Interval Three Phase*

## Generator Protective Relay Settings

**Table 1 – Inverter Based Generation**

The following relay settings shall be used for inverters built to the CSA standard:

Source: CSA C22.2 No. 107.1-01 Table 16

System Voltage Vn = V nominal <b>V (Volts)</b>	Frequency <b>F (Hertz)</b>	Maximum number of cycles to disconnect	
		Seconds	Cycle
V < 0.5 Vn	60	0.1	6
0.5 Vn ? V < 0.88 Vn	60	2	120
1.10 Vn ? V < 1.37 Vn	60	2	120
V ? 1.37 Vn	60	0.033	2
Vn	<b>F &lt; 59.5*</b>	0.1	6
Vn	<b>F &gt; 60.5</b>	0.1	6

\* The UL1741 & IEEE P1547 Standards use F < rated-0.7 i.e. 59.3 Hz.

To update if CSA C22.2 No. 107.1-01 is changed

**Table 2 – Generation Other Than That Covered by Table 1**

Essex Powerlines' minimum requirements for other generation are as follows:

System Voltage Vn = V nominal <b>V (Volts)</b>	Frequency <b>F (Hertz)</b>	Maximum clearing time*	
		Seconds	Cycle
V < 0.5 Vn	60	0.16	9.6
0.5 Vn ? V < 0.88 Vn	60	2	120
1.10 Vn ? V < 1.20 Vn	60	1	60
V ? 1.20 Vn	60	0.16	9.6
Vn	<b>F &lt; 59.3</b>	0.16	9.6
Vn	<b>F &gt; 60.5</b>	0.16	9.6

\*Clearing time is the time between the start of the abnormal condition and the generation ceasing to energize the Essex Powerlines distribution system

- If you are uncertain about your generation equipment's protective relay settings, please check with your generating equipment supplier.
- Automatic reconnect setting time for your generator is after 5 minutes of normal voltage and frequency on the Essex Powerlines distribution system

**Note:** Keep this completed agreement for use when your Essex Powerlines field representative visits your site.