



Energy
Corporation

Société de
l'énergie



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Island Regulatory and Appeals Commission

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July 11, 2019

Dear Commissioners,

Please find enclosed/attached a copy of the legislative amendments to the Renewable Power Act that have been tabled before the House and an outline of our Solar Rebate Program that we will be launching through efficiencyPEI under the LCEF program. These are being filed as evidence with respect to Maritime Electric Company Limited's General Rate Application UE20944 to demonstrate that programs are being put into place, which if given time to allow for uptake, would help mitigate the impacts (rate shock) of eliminating the declining second block energy price in the near future.

Thank you. If you require any further information, please do not hesitate to contact me.

Yours truly,

Kim Horrelt,
CEO PEI Energy Corporation

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Draft 6 PA/kw5/bl 6
June 12, 2019

Hon. Steven Myers
Minister of Transportation, Infrastructure and Energy



AN ACT TO AMEND THE RENEWABLE ENERGY ACT

READY FOR CCOPP

BILL NO.

2019

BE IT ENACTED by the Lieutenant Governor and the Legislative Assembly of the Province of Prince Edward Island as follows:

1. **Subsection 1(1) of the *Renewable Energy Act* R.S.P.E.I. 1988, Cap. R-12.1, is amended**
 - (a) **by the repeal of clause (a) and the substitution of the following:**
 - (a) **“agricultural renewable energy generator”** means a person who is a bona fide farmer as defined in the *Real Property Assessment Act* R.S.P.E.I. 1988, Cap. R-4, that owns or operates a renewable energy generation facility that meets the requirements of subsection 14.1(2) on the person's farm property as defined in that Act;
 - (a.1) **“bill reading period”** means, in respect of a public utility, the period of time at the end of which the public utility regularly reads a customer's meter to determine the amount of electric energy that has been furnished to the customer during that period;
 - (b) **by the addition of the following after clause (d):**
 - (d.1) **“distribution substation area”** means a geographical area serviced with electric energy from a distribution substation power transformer in a public utility's substation;
 - (d.2) **“enhanced net-metering system”** means a system that operates in parallel with the electrical distribution facilities of a public utility and that measures, by means of one or more meters within a single distribution substation area, the amount of electric energy that is supplied
 - (i) by the public utility to a municipal or an agricultural renewable energy generator, as the case may be, and

- (ii) by the municipal or the agricultural renewable energy generator, as the case may be, to the public utility;
- (d.3) **“enhanced net-metering system agreement”** means an agreement entered into by a public utility and a municipal or an agricultural renewable energy generator, as the case may be, under section 14.2;
- (c) **in clause (o), by the addition of the words “associated with a single premises number as defined by the public utility” after the words “one or more meters”; and**
- (d) **in clause (v),**
 - (i) **by addition of the words “and except in sections 14.1 to 14.5,” after the words “otherwise,” and**
 - (ii) **by addition of the following after subclause (ii):**
 - (ii.1) agricultural renewable energy generator,

2. Subsections 11(2.1) and (2.2) of the Act are repealed and the following substituted:

Energy credits – expiry date

- (2.1) A small capacity renewable energy generator shall specify, in the prescribed net-metering system agreement referred to in clause (2)(a), the date on which an amount of electric energy, measured in kilowatt hours, that is credited during the term of the agreement to the account of the small capacity renewable energy generator, in respect of a bill reading period of the public utility in a calendar year, expires in the following calendar year.

Condition – expiry date

- (2.2) The date specified under subsection (2.1) by a small capacity renewable energy generator in a net-metering system agreement shall be the last day of a calendar month.

3. Subsection 12(1) of the Act is amended by the addition of the word “capacity” after the word “small” wherever it occurs.

4.(1) Subsections 13(1) and (2) of the Act are amended by the addition of the word “capacity” after the word “small” wherever it occurs.

(2) Subclause 13(4)(b)(v) of the Act is repealed and the following substituted:

- (v) the dollar amount that the small capacity renewable energy generator is required to pay to the public utility.

(3) **Subsection 13(7) of the Act is repealed and the following substituted:**

Expiry

- (7) Where an amount of electric energy, measured in kilowatt hours, is credited to the account of a small capacity renewable energy generator in respect of a bill reading period in a calendar year, the amount of the credit expires on the date in the following calendar year that is specified in the net-metering system agreement between the small capacity renewable energy generator and the public utility as the date the credit expires, if the amount of the credit cannot, before that date, be applied in accordance with subsection (6).

5. **The Act is amended by the addition of the following after section 14:**

ENHANCED NET-METERING SYSTEM AGREEMENTS WITH MUNICIPAL AND AGRICULTURAL RENEWABLE ENERGY GENERATORS

14.1 Definition

- (1) In this section and in sections 14.2 to 14.5, “**renewable energy generator**” means a municipal or an agricultural renewable energy generator, as the case may be.

Name plate capacity

- (2) The name plate capacity of the renewable energy generation facility of a renewable energy generator shall not exceed the greater of
- (a) 100kW; or
 - (b) 0.00015 kW for each kW hour of consumption of electric energy by the renewable energy generator in the calendar year immediately prior to the installation of the renewable energy source.

14.2 Request for enhanced net-metering system agreement

- (1) A renewable energy generator may request a public utility to enter into an enhanced net-metering system agreement to operate an enhanced net-metering system with the renewable energy generator, if
- (a) the renewable energy generator’s consumption and generation of electric energy is in the same distribution substation area of the public utility; and
 - (b) the renewable energy generator’s renewable energy generation facility is located in the service area of the public utility.

Submission

- (2) A renewable energy generator may request an enhanced net-metering system agreement with a public utility by submitting to the public utility
- (a) two copies of the prescribed enhanced net-metering system agreement that have been completed by the renewable energy generator; and
 - (b) the drawings or information concerning the interconnection equipment or renewable energy generation facility of the renewable energy generator that the public utility reasonably requires to assist it in carrying out an inspection under subsection (5).

Energy credits – expiry date

- (3) A renewable energy generator shall specify, in the prescribed enhanced net-metering system agreement referred to in clause (2)(a), the date on which an amount of electric energy, measured in kilowatt hours, that is credited during the term of the agreement to the account of the renewable energy generator, in respect of a bill reading period in a calendar year, expires in the following calendar year.

Condition - expiry date

- (4) The date specified under subsection (3) by a renewable energy generator in an enhanced net-metering system agreement shall be the last day of a calendar month.

Inspection

- (5) Within 30 days of receiving a request made by a renewable energy generator in accordance with subsection (2), a public utility shall inspect the interconnection equipment and the renewable energy generation facility of the renewable energy generator to determine whether the proposed operation of an enhanced net-metering system with the renewable energy generator is likely to have a serious adverse impact on
- (a) the service provided by the public utility to its other customers;
 - (b) the poles, lines, equipment or plant of the public utility; or
 - (c) the ability of the public utility to otherwise operate and maintain its business and electrical system in a manner consistent with
 - (i) the *Electric Power Act*,
 - (ii) the *Electrical Inspection Act* R.S.P.E.I. 1988, E-3, or the regulations made under that Act, or
 - (iii) any current standard published by the Institute of Electrical and Electronics Engineers Inc. that is not inconsistent with any provision of one of the Acts or regulations referred to in subclauses (i) and (ii).

Requirement to cooperate

- (6) On the request of an employee or agent of a public utility, for the purpose of conducting the inspection referred to in subsection (5), a renewable energy generator shall, during normal business hours, allow the employee or agent access to the interconnection equipment and renewable energy generation facility of the renewable energy generator.

Inspection reveals likely adverse impact

- (7) Where a public utility determines, after an inspection under subsection (5), that the proposed operation of an enhanced net-metering system with the renewable energy generator will likely have a serious adverse impact of a type described in subsection (5), the public utility shall, within 30 days of the date of the inspection,
- (a) refuse to enter into an enhanced net-metering system agreement with the renewable energy generator; and
 - (b) serve the renewable energy generator with
 - (i) a written notice of its decision setting out the reasons for the refusal, and
 - (ii) a copy of section 14.5.

Requirement to enter into enhanced net-metering system agreement

- (8) Within 70 days of the receipt of a request from a renewable energy generator made in accordance with subsection (2), a public utility shall enter into an enhanced net-metering system agreement with the renewable energy generator if

- (a) the renewable energy generation facility of the renewable energy generator
 - (i) is located in the service area of the public utility, and
 - (ii) has a name plate capacity that meets the requirements of subsection 14.1(2); and
- (b) the public utility determines, after an inspection under subsection (5), that the proposed operation of an enhanced net-metering system with the renewable energy generator will not likely have a serious adverse impact of a type described in subsection (5).

Signing agreement, etc.

- (9) Where a public utility is required to enter into an enhanced net-metering system agreement under subsection (8), the public utility shall
 - (a) sign the copies of the enhanced net-metering system agreement submitted by the applicant; and
 - (b) return a copy of the signed enhanced net-metering system agreement to the applicant.

Termination

- (10) Subject to subsection (15), an enhanced net-metering system agreement continues in force until the date of termination specified in a notice given by a party to the agreement under subsection (11) or (13).

Termination by renewable energy generator

- (11) A renewable energy generator that is a party to an enhanced net-metering system agreement may terminate the agreement at any time by giving a written notice to the other party that specifies the date of termination.

Termination by public utility

- (12) A public utility that is a party to an enhanced net-metering system agreement may terminate the agreement only if
 - (a) the renewable energy generator that is a party to the agreement fails to comply with a condition of the agreement or any provision of this Act or the regulations; or
 - (b) the public utility considers it necessary to do so
 - (i) to avoid a serious adverse impact of a type described in subsection (5), or
 - (ii) to otherwise protect public safety.

Notice by public utility

- (13) A public utility that wishes to terminate an enhanced net-metering system agreement under subsection (12) shall serve a written notice on the renewable energy generator that is a party to the agreement that
 - (a) sets out the reasons for the termination;
 - (b) indicates the date of the termination; and
 - (c) includes a copy of section 14.5.

Date of termination

- (14) The date of termination specified in a written notice given under subsection (11) or (13) shall be a date at least five days following the date on which the notice is served.

Notice

- (15) Where a public utility terminates an enhanced net-metering system agreement with a renewable energy generator in the circumstances referred to in clause (12)(b), the public utility shall, as soon as possible after the termination, serve on the renewable energy generator a written notice that includes the information required under subsection (13).

14.3 Operation of enhanced net-metering system under agreement

- (1) A public utility shall, after entering into an enhanced net-metering system agreement with a renewable energy generator, permit the renewable energy generator to operate an enhanced net-metering system in parallel with the public utility's electric system in accordance with the terms and conditions of this Act, the regulations and the enhanced net-metering system agreement.

Charges, restriction

- (2) Under an enhanced net-metering system agreement with a renewable energy generator, a public utility shall not charge the renewable energy generator any fee or charge that is not charged or imposed on, or that differs in amount from, a fee or charge that is imposed on any other customer of the public utility who is in the same power rate class as the renewable energy generator.

14.4 Installation of meters

- (1) Within 30 days after entering into an enhanced net-metering system agreement with a renewable energy generator, a public utility shall install, at a location agreeable to both parties, the meters, and undertake other actions that are necessary to establish the enhanced net-metering system with the renewable energy generator.

Inspection, access

- (2) After a public utility has installed an enhanced net-metering system for a renewable energy generator, the renewable energy generator shall allow, during normal business hours, the employees or agents of the public utility to have access to the enhanced net-metering system for the purposes of
- (a) testing or inspecting the enhanced net-metering system; and
 - (b) reading the meters of the enhanced net-metering system.

Ownership of meters

- (3) For greater certainty, the meters installed by a public utility pursuant to subsection (2) remain the property of the public utility.

Reading meters

- (4) A public utility that installs an enhanced net-metering system with a renewable energy generator shall, at the end of each bill reading period,
- (a) read the meters of the system as simultaneously as is practicable in relation to the meter-reading cycle of the public utility to determine the amounts of electric energy that have been produced and consumed during the bill reading period by the renewable energy generator; and
 - (b) give to the renewable energy generator a notice that advises the renewable energy generator of
 - (i) the amount of electric energy that the renewable energy generator produced during the bill reading period, if any,

- (ii) the amount of electric energy that the renewable energy generator consumed during the bill reading period,
- (iii) the difference between the amounts referred to in subclauses (i) and (ii),
- (iv) any entitlement that the renewable energy generator has to a credit under subsection (5), and
- (v) the dollar amount that the renewable energy generator is obliged to pay to the public utility.

Credits

- (5) Where, after a public utility installs an enhanced net-metering system with a renewable energy generator, the renewable energy generator produces an amount of electric energy during a bill reading period that exceeds the amount of electric energy that the renewable energy generator consumes during that period, the renewable energy generator is entitled to a credit, measured in kilowatt-hours, from the public utility equal to the difference between the amount of electric energy that the renewable energy generator produced and consumed.

Application

- (6) An amount of electric energy that is due as a credit from a public utility to a renewable energy generator in respect of a bill reading period shall, subject to subsection (7),
- (a) be credited to the account of the renewable energy generator;
 - (b) be applied by the public utility against the amount of electric energy, measured in kilowatt hours, that the renewable energy generator consumes in subsequent bill reading periods until exhausted; and
 - (c) where the remaining amount of the credit is not sufficient to completely offset the electric energy consumed by the renewable energy generator in that bill reading period, be applied in a manner that minimizes the dollar amount that the renewable energy generator is required to pay to the public utility.

Expiry

- (7) Where an amount of electric energy, measured in kilowatt hours, is credited to the account of a renewable energy generator in respect of a bill reading period in a calendar year, the amount of the credit expires on the date in the following calendar year that is specified in the enhanced net-metering system agreement between the renewable energy generator and the public utility as the date the credit expires, if the amount of the credit cannot, before that date, be applied in accordance with subsection (6).

14.5 Appeals

- (1) Where
- (a) the request of a renewable energy generator for an enhanced net-metering system agreement is refused by a public utility; or
 - (b) a public utility terminates an enhanced net-metering system agreement with a renewable energy generator,
- the renewable energy generator may, within 30 days from the date of the service of the notice of refusal or termination from the public utility, appeal the refusal or termination to the Commission.

Notice of appeal

- (2) The renewable energy generator shall commence an appeal to the Commission by serving a written notice of appeal on
 - (a) the Commission; and
 - (b) the public utility.

Contents

- (3) A notice of appeal shall set out the grounds of the appeal and state briefly the relevant allegations of fact.

Standing at hearing

- (4) On the hearing of an appeal, both the renewable energy generator and the public utility are entitled to appear and be heard and to submit further evidence.

Designation of person to hear appeal

- (5) The Commission may, in writing, designate a person to act on behalf of the Commission and hear an appeal under this section and any reference in this section to the Commission includes the designated person.

Grounds of appeal in notice

- (6) No grounds of appeal shall be considered by the Commission other than the grounds of appeal set out in the notice of appeal.

Decision of Commission

- (7) The Commission may, after hearing an appeal,
 - (a) affirm the decision of the public utility to
 - (i) refuse to enter into an enhanced net-metering system agreement, or
 - (ii) terminate the agreement; or
 - (b) order the public utility to enter into an enhanced net-metering system agreement with the applicant that is subject to or includes the conditions, if any, specified in the order.

6. **Clause 18(d) of the Act is amended by the addition of the words “or an enhanced net-metering system agreement” after the word “agreement”.**

7. **This Act comes into force on a date that may be fixed by proclamation of the Lieutenant Governor in Council.**

EXPLANATORY NOTES

SECTION 1 amends subsection 1(1) of the Act to establish new definitions of “agricultural renewable energy generator”, “distribution substation area”, “enhanced net-metering system” and “enhanced net-metering system agreement”, to be used in the following amendments.

SECTION 2 repeals subsections 11(2.1) and (2.2) of the Act and substitutes new subsections (2.1) and (2.2) that simplify and clarify the wording, and make it mandatory for the small capacity renewable energy generator to specify in the net-metering system agreement the expiry date applicable to the amount of electric energy credited to the account of the small capacity renewable energy generator, and also clarify that the specified expiry date must be the last day of a calendar month. This wording is consistent with the wording of the new subsection 14.2(3), which requires a renewable energy generator to specify the expiry date applicable to the amount of electric energy credited to the account of the renewable energy generator.

SECTION 3 amends subsection 12(1) to correct errors in the terminology used in those subsections, as specified.

SECTION 4 amends subsections 13(1) and (2) of the Act to correct errors in the terminology used in those subsections, as specified. The section amends subclause 13(4)(b)(v) of the Act to clarify that even if consumption of electric energy is fully offset by a credit, there will still be a demand charge to be paid by the small capacity renewable energy generator. The section also amends subsection 13(7) of the Act to simplify the rules applicable to the expiry date to be specified by a small capacity renewable energy generator under subsection 11(2.1) of the Act. This new wording is consistent with the rules applicable to the expiry date to be specified by a renewable energy generator under subsection 14.4(7) of the Act.

SECTION 5 amends the Act by adding a new division containing sections 14.1 to 14.5 that provide rules respecting enhanced net-metering system agreements between a public utility and a municipal or an agricultural renewable energy generator, as the case may be.

SECTION 6 amends clause 18(d) of the Act to add a regulation-making power respecting enhanced net-metering system agreements.

SECTION 7 provides for the commencement of the Act.

Solar Electric Incentive Program

June 28, 2019

Since opening in 2008, efficiencyPEI has helped Islanders save over \$35 million on their energy bills, including:

- Over \$11.4 million in grants to over 13,000 residential clients;
- A free weatherization service to 4,700 low-income homes;
- Over 600 businesses with programs and services to help reduce their energy consumption;
- Provided over \$8 million toward ENERGY STAR® certified equipment
- Generated \$60 million in building renovation expenditures.
- Reduced CO2 emissions by 36,000 tonnes annually
- Saved 1.2 million litres of home heating fuel annually
- Saved 3.5 million litres in 2018/19 alone.
- Helped Islanders save \$35 million on their energy bills.
- Participation in our rebate programs has increased by over 400% over last year.

Proposed Solar Program

efficiencyPEI proposes to develop and implement a solar electric incentive for Island homeowners, small businesses and farms to help reduce GHG emissions and reduce electricity consumption. The program will be a pilot for 6 months to determine best path forward.

To be eligible you must meet these requirements:

- Be the legal property owner, business owner and/or a bona-fide farmer.
- Your building is:
 - a residential property, no more than three stories high, **with a footprint** smaller than 600 m² (6458 ft²); or
 - a commercial building with an operating business; or
 - A farm building owned and operated year round by a bona-fide farmer.
- Single-family homes, detached, side-by-side, or row homes **and apartment buildings** are eligible.
- Manufactured or mobile homes must be on a permanent foundation or have a permanent electrical utility connection. Intent here is to exclude RVs.
- Buildings must be habitable and structurally sound

Ineligible buildings include:

- Buildings that are not habitable or structurally sound (i.e. fire damage, uninhabitable, major renovation or construction in progress, etc.)

Program Requirements (Residential):

- Solar PV System must be eligible for your electric utility's net metering program (Maritime Electric and City of Summerside Electric Utility).
- Solar PV System must meet all applicable regulations under the Canadian Electrical Code and any additional Provincial laws and regulations.
- Solar PV System must be installed by an **efficiencyPEI** Network of Excellence contractor

Program Requirements (Commercial/Farms):

- Solar PV System must be eligible for your electric utility's net metering program (Maritime Electric and City of Summerside Electric Utility).
- Solar PV System must meet all applicable regulations under the Canadian Electrical Code and any additional Provincial laws and regulations.
- Solar PV System must be installed by an **efficiencyPEI** Network of Excellence contractor

Incentive Levels (Residential):

- **\$1,000** per installed kilowatt.
- The maximum grant limit for all **efficiencyPEI** programs of \$5000 per property (PID) would not apply to this program.
- Not to exceed 40% total of installed costs.
- Not to exceed \$10,000 for residential installations.

Incentive Levels Commercial/Farms:

- **\$350** per installed kilowatt.
- The maximum grant limit for all **efficiencyPEI** programs per property (PID) would not apply to this program.
- Not to exceed 25% total of installed costs.
- Not to exceed \$10,000 for commercial/farm installations.
- No more than 10 commercial/farm applications will be approved in this pilot program.

Financing for residential clients will be available through Finance PEI's Energy Efficiency Loan Program. Maximum loan amount for Solar Energy Program shall be \$25,000, and will have an interest rate of 5%. Any **efficiencyPEI** rebates earned in connection with the upgrade project will be applied firstly and directly as a permanent lump sum reduction in the EELP loan.

Budget Implications

(Current \$500,000 budget)

Treasury Board approval will be sought to increase budget to **\$2 million** which will increase the number of potential participants to 200 clients.

	Annual Costs	# of Participants	Economic Impact (jobs)*	Annual KWh Savings	Total kWh Reductions	GHG Reductions
Solar Incentive Residential	\$1,600,000	160	11.2	7,800	1,248,000	Under review
Solar Incentive Commercial/Farm	\$400,000	40	2.8	62,400	2,496,000	Under review

* There was a study done in 2012 that calculated that for every million spent on energy programs, 7 jobs are created.

Review of Solar Industry Prices and System Sizing

	Average Install Costs	Average System Size	Installed Cost of System	Ground Mount Costs
Installer #1	\$3/watt	7KW	\$21,000	Not available
Installer #2	\$3.20 - \$2.80/watt	6-10KW	\$19,200 – 28,000	\$0.60/watt

Financing Projections:

	Average Install Costs	Number of Installs	Total Financing	Bad Debt Rate	Cost of Bad Debts
Residential Installs	\$21,000	75	\$1,575,000	10%	\$157,500

Jurisdictional Scan of Solar Incentive Programs

Jurisdiction	Net Metering	Rebates	Provincial Tax Incentives	Other
NL	Yes + excess buyback	None		
NS	Yes	\$1/watt up to \$10k or 40%		
NB	Yes	\$0.2-0.3/watt		Requires efficiency upgrades or minimum insulation levels
Quebec	Yes	None	20% tax credit	
Ontario	Yes	None		FIT and rebates cancelled
Manitoba	Yes + excess buyback	None		Program ended 2018
Saskatchewan	Yes	\$.61/watt		Rebate from SaskPower
Alberta	Yes + excess buyback	\$.75-\$1/watt or 35%, whichever is less		\$36 Million Cap
BC	Yes + excess buyback	7%		Paid to the installer (PST Rebate)