

**Net Metering Policy Framework**

**July 2015**



## Table of Contents

<b>1.0</b>	<b>BACKGROUND</b> .....	2
<b>2.0</b>	<b>POLICY OBJECTIVE</b> .....	2
<b>3.1</b>	<b>Eligibility</b> .....	3
<b>3.1.1</b>	<i>Renewable Generation</i> .....	3
<b>3.1.2</b>	<i>Customer Class</i> .....	3
<b>3.1.3</b>	<i>Size of Generation</i> .....	3
<b>3.2</b>	<b>Program Development Requirements</b> .....	3
<b>3.2.1</b>	<i>Guidelines, Processes and Connection Requests</i> .....	3
<b>3.2.3</b>	<i>Generation Location</i> .....	4
<b>3.3</b>	<b>Cost Allocation</b> .....	4
<b>3.3.1</b>	<i>Customer</i> .....	4
<b>3.3.2</b>	<i>Utilities</i> .....	5
<b>3.4</b>	<b>Rates and Settlement</b> .....	5
<b>3.5</b>	<b>Subscription Limits</b> .....	5
<b>3.6</b>	<b>Cross-Subsidization</b> .....	6
<b>3.7</b>	<b>Associated Credits</b> .....	6
<b>3.8</b>	<b>Regulatory Treatment</b> .....	6
<b>3.9</b>	<b>Impact on Other Programs and Policies</b> .....	6
<b>4.0</b>	<b>ROLES AND RESPONSIBILITIES</b> .....	6
<b>5.0</b>	<b>MONITORING AND EVALUATION</b> .....	7
<b>6.0</b>	<b>DEFINITIONS</b> .....	8

## **1.0 BACKGROUND**

In its 2007 Energy Plan: Focusing our Energy, the Government of Newfoundland and Labrador committed to developing and implementing a net metering policy that would provide regulatory support for small-scale renewable energy sources.

Net metering allows utility customers with small-scale generating facilities to generate power from renewable sources for their own consumption, and to feed power into the distribution system during periods when they generate excess power and draw power from the grid when their generation does not fully meet their needs.

This framework for a provincial net metering policy has been developed in consultation with the utilities – both Newfoundland Power (NP) and Newfoundland and Labrador Hydro (NLH). The development of the policy was supported by a jurisdictional scan of net metering best practices, which was prepared by Navigant Consulting Limited. Their final report summarized standard industry practices, primarily in Canada and the United States, which were applicable to the Newfoundland and Labrador context, and included suggested policy considerations for a provincial net metering policy framework. To further inform the development of this policy framework, stakeholders were also consulted on Navigant’s report and given the opportunity to provide their input, including staff of the Board of Commissioners of Public Utilities (PUB).

## **2.0 POLICY OBJECTIVE**

In many jurisdictions, net metering policies are often introduced as part of a broader policy to encourage the development of renewable energy sources. This is particularly the case in jurisdictions that continue to rely on fossil fuels for energy generation. Newfoundland and Labrador differs from these jurisdictions in that its system has one of the highest proportions of renewable hydraulic generation in North America. The province’s current energy mix is 85 percent renewable, and this will increase to 98 percent when the Muskrat Falls Project is completed. Therefore, the primary driver for a net metering policy in Newfoundland and Labrador is not to encourage the development of renewable energy, but to provide customers with the option to offset their own energy usage through small-scale renewable generation they develop themselves.

## **3.0 POLICY PARAMETERS**

This framework is intended to provide the utilities with the policy parameters to inform the development and implementation of their own net metering programs including the development of appropriate guidelines, connection requirements, and application processes. The following sub-sections outline the parameters of the policy.

### **3.1 Eligibility**

Eligibility requirements for net metering include the types of renewable energy sources permitted under the policy, as well as customer classes and the size of their generation. The details of these criteria will be established by the utilities and the PUB through the regulatory process and communicated to customers in a timely manner.

#### **3.1.1 Renewable Generation**

- i. Eligible energy sources under this policy are limited to small-scale renewable generation systems. These sources may include wind, solar, photovoltaic, geothermal, tidal, wave, and biomass energy.
- ii. New renewable technologies will be considered by the utilities on a case-by-case basis.

#### **3.1.2 Customer Class**

- i. The utilities will offer net metering to domestic and general service customers.
- ii. Net metering will not be available to un-metered accounts.

#### **3.1.3 Size of Generation**

- i. Generation systems shall not be sized beyond a customer's load.
- ii. Customer loads, and therefore, the size of individual generation systems, will be determined based on criteria to be established by the utilities through the PUB regulatory process.
- iii. Regardless of customer load requirements, individual renewable generation systems shall not exceed a maximum limit of 100kW. Given that the province includes several different electricity systems, the utilities, through the PUB regulatory process, could determine that lower customer limits on various systems may be required.
- iv. In addition, technical requirements may require a limit in the aggregate amount of customer generation that can be located on isolated diesel systems. The utilities will be permitted to assess these net metering servicing requests in this context.

### **3.2 Program Development Requirements**

The utilities will develop program details based on the policy framework, which will include establishing the rules that will be approved by the PUB. This will also include details regarding the application and approval processes and the technical requirements for connecting customer generation to the power system. These should be developed and communicated in a clear and transparent manner to potential net metering customers.

#### **3.2.1 Guidelines, Processes and Connection Requests**

- i. The utilities will develop guidelines and application forms for their net metering programs, and make them publically available to inform potential net metering customers prior to implementing a net metering program.

- ii. The utilities will also develop connection requirements to ensure the safety of utility workers and net metering customers and ensure the overall safe operation of equipment. These requirements will also be made publically available to inform potential net metering customers prior to implementation of any net metering program offered by the utilities.
- iii. In general, in order to avail of net metering programs, customers will be required to submit an application specifying the characteristics of their service requirements and their generating equipment. The application process will enable the utilities to establish the technical and operating requirements for the individual installations, and to determine what electrical system additions or modifications may be required to accommodate net metering on the customer's property.
- iv. The utilities will have discretion to review connection requests on an individual basis and to limit the number of net metering customers or limit the generation size in circumstances where infrastructure and/or technical constraints exist.
- v. The utilities will ensure that review processes are streamlined so customers receive timely responses to their connection requests. This will also serve to minimize administrative costs for the utilities.
- vi. Once connection requests are approved, customer generation systems will need to be installed within a certain timeframe, which will be determined and communicated by the utilities.

### **3.2.3 Generation Location**

A customer's generation equipment will be located at the customer's property such that there is one metering point where the customer's net energy consumption will be metered. Meter aggregation is not permitted under this net metering policy. Only one metering point is allowed per account and property.

### **3.3 Cost Allocation**

The rules and associated documents developed by the utilities will clearly articulate the responsibility for different costs associated with the net metering service.

#### **3.3.1 Customer**

- i. The customer will be responsible for covering the cost of purchasing, installing and maintaining their renewable generating systems.
- ii. The customer may be required to include a deposit as part of the net metering application, which may be used to offset the cost of any required technical studies or distribution upgrades. The utilities will carry out further investigation regarding the necessity of a deposit and, if required, will include in their program details the basis for, and conditions under which, a deposit may be required.
- iii. The customer will be required to pay additional meter costs and the cost of any required permits.

- iv. The customer may also be required to pay for technical reviews of the connection requests, and any distribution upgrades necessary to accommodate the connection of the customer's generator. The program details will include a description of when a detailed technical review is required and the basis for any charges to the customer for the cost of a technical review or distribution upgrades.

### **3.3.2 Utilities**

- i. The utilities will cover the costs of incremental meter readings and billing and administrative costs and will be permitted to recover these costs in the rates it charges ratepayers.
- ii. The utilities will monitor uptake of net metering programs to minimize the extent that billing and administrative costs may contribute to issues of cross-subsidization. The utilities are also encouraged to look at ways they can streamline their processes.
- iii. In instances where customer connection requests require distribution system upgrades, the utilities will be permitted to exercise discretion as to whether the connection request can be accommodated and whether the costs of the required upgrades should be recovered from the net metering customer.

### **3.4 Rates and Settlement**

- i. The customer's net consumption will be billed using retail rates that are consistent with those that apply to a non-net metering customer of the same size, type and location.
- ii. The customer's net excess generation will be credited at the end of a billing period on the customer's next bill as a kWh credit.
- iii. Accounts will be monitored annually to identify any accounts which are developing a significant credit over a 12-month period.
- iv. On the customer's Annual Review Date, net excess generation will be settled with a cash payment or bill credit. Whether it is a cash payment or bill credit will be proposed by the utilities, subject to PUB approval, and then communicated to customers in their program guidelines. The customer will be compensated for the net excess generation at the retail rates that are used to determine the bill for the customer's net consumption. This retail rate will factor in existing subsidies, and should represent the effective rate at which the customer is billed. Following implementation, government, in consultation with the utilities and the PUB, will monitor and review the net metering program.

### **3.5 Subscription Limits**

A provincial subscription limit shall be set at 5MW for all net metering customers' generating facilities that are a part of the net metering program. Government, in consultation with the utilities and the PUB, will monitor the response to net metering and may adjust the overall capacity limit in the future if the level of uptake warrants it.

### **3.6 Cross-Subsidization**

The utilities will quantify the rate impact and the risk of cross subsidization in its program applications to the PUB. Once implemented, and on an ongoing basis, the utilities will monitor their net metering programs regarding the extent of any cross-subsidization.

### **3.7 Associated Credits**

Net metering customers will retain the value of any renewable energy credits (RECs) or GHG-related credits available from the sale of such credits resulting from their small-scale renewable energy generation.

### **3.8 Regulatory Treatment**

As both NP and NLH are regulated by the PUB, and any net metering programs developed will be a part of the appropriate rate structure, the utilities will require approval from the PUB prior to implementation of any net metering program.

### **3.9 Impact on Other Programs and Policies**

#### **Maximum Monthly Charge**

The utilities electricity rates for General Service customers include a Maximum Monthly Charge. The purpose of this charge is to limit the extent to which low load factor customers pay for demand related costs. Net metering may reduce a customer's monthly net energy requirements without materially impacting their monthly demand requirements. To ensure reasonable recovery of demand related costs from net metering customers, the Maximum Monthly Charge will not be available to customers served under a utility's net metering program.

#### **Biogas Electricity Generation Pilot Project**

A net metering customer cannot also participate in the Biogas Electricity Generation Pilot Project.

## **4.0 ROLES AND RESPONSIBILITIES**

### Government of Newfoundland and Labrador (Department of Natural Resources)

The Government of Newfoundland and Labrador is responsible for providing the policy, legislative and regulatory framework under which net metering programs may be developed by the utilities. GNL will work with NP and NLH to monitor and evaluate the net metering programs made available to customers.

### Newfoundland Power

NP is responsible for:

- developing and implementing a net metering program including the development of appropriate guidelines, connection requirements, and application processes, as well as communicating program components to potential net metering customers in a timely manner;

- developing rate structures;
- applying to the PUB for approval;
- covering the costs of billing and administration of their program (with incremental costs recovered in rates); and
- monitoring and evaluating their net metering program.

#### Newfoundland and Labrador Hydro

NLH is responsible for:

- developing and implementing a net metering program including the development of appropriate guidelines, connection requirements, and application processes, as well as communicating program components to potential net metering customers in a timely manner;
- developing rate structures;
- applying to the PUB for approval;
- covering the costs of billing and administration of their program (with incremental costs recovered in rates); and
- monitoring and evaluating their net metering program.

#### Board of Commissioners of Public Utilities

As regulator of the utilities, the PUB is responsible for reviewing the utilities' proposals and approving net metering programs to ensure the rules developed by the utilities are consistent with the *Public Utilities Act* and the *Electrical Power Control Act*.

#### Net Metering Customers

Under the net metering programs offered by the utilities, potential net metering customers are responsible for:

- covering the cost of purchasing, installing and maintaining their renewable generating systems;
- conducting their own financial analysis to determine the costs and benefits of net metering for their own situation;
- any costs assigned under the net metering program such as covering additional meter costs and the cost of any required permits; and,
- ensuring that they adhere to the utilities' connection requirements and provide all required information necessary to process applications under their net metering programs.

## **5.0 MONITORING AND EVALUATION**

The Department of Natural Resources will continue to work closely with NP and NLH to monitor the implementation of the net metering programs offered by the utilities.



## **6.0 DEFINITIONS**

### Annual Review Date

Represents the date that marks a customer's annual participation in the net metering program and the date on which any credits from excess generation are paid out. This date will be determined by the net metering customer, in conjunction with the utilities.

### Biogas Electricity Generation Pilot Project

Biogas is a combustible gas created by landfills and farms through the anaerobic (i.e. without oxygen) decomposition of organic material. Newfoundland and Labrador's Biogas Electricity Generation Pilot Program was established in 2014/15 to encourage the development of biogas power generation and generate electricity for the system.

### Cross Subsidization

An issue arising when transmission and distribution costs, and other program related costs, attributable to net metering customers are transferred to non-net metering customers.

### Maximum Monthly Charge

The Maximum Monthly Charge is available to General Service customers with demands of 10kW or greater. The purpose of this charge is to limit the extent to which low load factor customers who use a relatively low amount of energy relative to their peak demand, pay for demand related costs. This limit reflects the likelihood that low load factor customers will have a relatively low demand during system peaks and, therefore, should not be subject to the full demand charge.

### Meter Aggregation

Involves allowing a single customer with multiple meters in a service territory to consolidate meters so that one source of renewable generation could be used to offset energy usage at different locations owned by the same customer.

### Net Metering

Net metering allows utility customers with small-scale generating facilities to generate power from renewable sources for their own consumption, and to feed power into the distribution system during periods when they generate excess power and draw power from the grid when their generation does not fully meet their needs.

### Renewable energy credits (RECs)

Renewable energy credits are non-tangible, tradable commodities that represent the environmental and other non-power attributes of one megawatt-hour of renewable electricity generation.

### Subscription Limit

Subscription limits place an overall limit (or cap) on the amount of generation capacity which can be installed under the net metering policy as a whole.