



**ENERGY+ INC.**

**ECONOMIC EVALUATION  
MODEL POLICY**

**EFFECTIVE: May 1, 2018**

# **Energy+ Inc. Economic Evaluation Model Policy**

## **Overview**

The Energy+ Inc. (Energy+) Economic Evaluation Model is used by Energy+ for cases where Energy+ must construct new facilities to its main distribution system or increase the capacity of existing distribution system facilities in order to be able to connect a specific customer or group of customers. The economic evaluation determines if the future revenue from the customer(s) will pay for the capital cost and on-going maintenance costs of the expansion project.

The methodology and assumptions are consistent with the Distribution System Code as published by the Ontario Energy Board (OEB). These provisions do not apply to projects that are the subject of an agreement entered into prior to November 1, 2000.

## **Key Assumptions Used in the Model**

Please refer to Schedule 1 of this policy for numerical information. This schedule is updated each year.

**Customer Connection Horizon:** A maximum customer connection horizon of five (5) years will be used. Five (5) years will be typical for most evaluations. Only customers connected in the first five years are considered in the evaluation. It is difficult to forecast beyond five years. The OEB would require an explanation if a longer period was used.

**Customer Revenue Horizon:** A maximum customer revenue horizon of twenty-five (25) years will be used calculated from the in-service date of the new customer(s).

**Revenue:** Revenue per year is calculated by considering the number of customer connections for fixed monthly charges, the average energy (monthly kWh) for kWh based charges and the average demand (monthly kW) for kW based charges.

**Capital Costs:** The capital cost of the new facilities or capacity expansion of existing facilities includes those costs (including metering) which connect a specific customer or group of customers.

**Expenses:** Attributable incremental operating and maintenance expenditures associated with the addition of new customers are included in the economic evaluation along with income, capital and municipal property (where applicable) taxes.

## **Result of Economic Evaluation**

The economic evaluation will result in a Net Present Value over the Revenue Horizon period. If the Net Present Value over the Revenue Horizon period, including the effect of taxes, is positive, no capital contribution will be required from the customer. If the Net Present Value over the Revenue Horizon period, including the effect of taxes, is negative, a capital contribution will be required from the customer. Energy+ will require, in most cases, that the customer post security until one year after the customer begins to use electricity for new customers or one year after the upgrade is completed for existing customers.

In certain instances, load guarantees and/or other financial arrangements may be required to ensure that facilities are not constructed that are not used to the extent originally contemplated in the economic evaluation.

## **Examples**

Each project will be considered on an individual basis. The requirements for a specific project will be outlined in Energy+'s Offer to Connect. The examples given below outline the treatment for a typical project in each category. In every case, the governing rules are Chapter 3, Connections and Expansions, contained in the Distribution System Code published by the Ontario Energy Board.

## **Residential Subdivisions**

Energy+'s present residential subdivision servicing policies continue. Residential subdivisions will still be developer installed.

This model includes all costs to service a development.

The economic model takes all costs and revenues into account and produces an amount that Energy+ can invest in the project as shown in Schedule 1. Energy+ has evaluated a number of previous residential subdivision projects using the economic model. The model is most sensitive to consumption. The actual servicing cost per lot is not critical to the results. Effectively, the economic model tells Energy+ how much it can contribute for a given revenue stream. The average monthly kWh use per residential customer is shown in Schedule 1. A typical servicing cost for work internal to the project is also shown in Schedule 1.

The Residential Rebate Amount shown in Schedule 1 will be used for all residential services subject to a subdivision servicing agreement signed with Cambridge and North Dumfries Hydro Inc. (CND Hydro) or Energy+ Inc. dated November 1, 2000 or later that are energized during the period for which Schedule 1 is applicable. Rebate amounts for residential subdivisions serviced with the former Brant County Power will be individually calculated. The rebate is payable to the developer identified in the subdivision agreement once an electrical service is energized. Applicable rebates are paid at four month intervals. A rebate amount will be set

on a yearly basis. The timing and/or the amount of any rebate may also be affected by any load guarantees or other financial arrangements outlined in Energy+'s Offer to Connect.

### **Industrial Subdivisions**

The developer of an industrial subdivision will pay the full initial costs of providing electrical services to the subdivision. In certain instances, external costs may also be applicable. This is in order to ensure that Energy+ does not take the risk of servicing industrial subdivisions for which the timing and type of eventual load customers is unknown. Energy+ will apply the economic evaluation model to each new load customer in the industrial subdivision one year after the customer begins to use electricity to determine if a rebate is applicable. The initial costs of providing electrical services to the subdivision will be included on a per hectare basis along with other costs to service the customer (ie. padmount or pole mount transformer) when the economic evaluation is completed for the customer. For instance, if the customer's lot is 1 hectare in a 25 hectare (serviced lot area) subdivision, a capital amount of 1/25<sup>th</sup> of the initial costs of providing electrical services to the subdivision will be included along with other items in the economic calculation for the customer. If the net present value is still positive, the developer will be entitled to a rebate on a per hectare basis (1/25<sup>th</sup> of cost in this example). This rebate, if applicable, will be rebated one year after the customer begins to use electricity. The timing and/or the amount of any rebate may also be affected by any load guarantees or other financial arrangements outlined in Energy+'s Offer to Connect.

### **Three Phase Padmount Transformers**

The economic evaluation formula will be applied for each three phase padmount transformer installation. In certain instances, external costs may also be applicable. A deposit will be required for three phase padmount transformer installations before Energy+ will order the transformer(s). The typical deposit amounts for three phase padmount transformers are listed in Schedule 1. Specific amounts will be outlined in Energy+'s Offer to Connect. No HST will be collected on the deposit and interest is paid on the amount under the terms and conditions set forth in Schedule 1.

Energy+ will apply the economic evaluation model one year after the customer begins to use electricity for new customers or one year after the upgrade is completed for existing customers to determine if a rebate is applicable. Any rebates will be issued to the person who made the initial payment. The timing and/or the amount of any rebate may also be affected by any load guarantees or other financial arrangements outlined in Energy+'s Offer to Connect.

## **Pole Mount Transformer Installations**

The economic evaluation formula will be applied for each pole mount transformer installation. In certain instances, external costs may also be applicable. A deposit will be required for pole mount transformer installations before Energy+ will order the transformer(s). The typical deposit amount for three phase pole mount transformer banks is listed in Schedule 1. Specific amounts will be outlined in Energy+'s Offer to Connect. No HST will be collected on the deposit and interest is paid on the amount under the terms and conditions set forth in Schedule 1.

Energy+ will apply the economic evaluation model one year after the customer begins to use electricity for new customers or one year after the upgrade is completed for existing customers to determine if a rebate is applicable. Any rebates will be issued to the person who made the initial payment. The timing and/or the amount of any rebate may also be affected by any load guarantees or other financial arrangements outlined in Energy+'s Offer to Connect.

**SCHEDULE 1 – Energy+ Economic Evaluation Model Policy**  
 (Effective Period Covering May 1, 2018 to December 31, 2018)

Different rates and financial parameters are presently in place for the former Cambridge and North Dumfries Hydro service territory and the former Brant County Power service territory. Therefore, Schedule 1 is separated out by former service territory.

**Information Applicable to the former Cambridge and North Dumfries Hydro Service Territory**

Effective May 1, 2018	Estimated Year <b>2019</b> thru <b>2043</b>
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**Distribution Rates**

**Monthly Fixed Charge**

Customer Class:

Residential	\$ 21.35	\$ 21.35
General Service < 50kW	\$ 13.74	\$ 13.74
General Service 50kW to 999kW	\$ 115.59	\$ 115.59
General Service 1,000kW to 5,000kW	\$ 1,047.77	\$ 1,047.77
Large User > 5,000kW	\$ 8,976.06	\$ 8,976.06

**Monthly Variable Charge per kWh**

Customer Class:

Residential	\$ 0.0046	\$ 0.0046
General Service < 50kW	\$ 0.0147	\$ 0.0147
General Service 50kW to 999kW	not applicable	not applicable
General Service 1,000kW to 5,000kW	not applicable	not applicable
Large User > 5,000kW	not applicable	not applicable

**Monthly Variable Charge per kW**

Customer Class:

Residential	not applicable	not applicable
General Service < 50kW	not applicable	not applicable
General Service 50kW to 999kW	\$ 4.2076	\$ 4.2076
General Service 1,000kW to 5,000kW	\$ 3.6470	\$ 3.6470
Large User > 5,000kW	\$ 2.4926	\$ 2.4926

**NOTE:** \$0.60 per kW will be deducted in cases where the transformer is owned by the customer except for the Large User class where it is already reflected in the rate shown.

## Consumption Assumptions

Residential Customers: **641.97** kWh per Month  
All Other Customers: Will be evaluated on an individual basis

## Financial Assumptions

Borrowing Rate: 4.770% (1)  
Rate of Return on Common Equity: 9.360% (1)  
Debt/Equity Ratio: 60/40 (1)  
Marginal Income Tax Rate: 26.500% (1)

Capital Cost Allowance Rate: 8.000%

(1) COS Application rates (Ontario Energy Board) Regulated; Subject to periodic change.

## Operating, Maintenance and Admin Expenditures (Annual Amounts)

Residential Customer: \$ 112.09

All Other Customers: [( \$ 27.66 X Estimated Peak) + \$143.13] /2

These figures are based on Actual 2017 Results

## Information Applicable to the former Brant County Power Service Territory

Effective  
May 1, 2018

Estimated  
Year 2018 thru  
2043

## Distribution Rates

### Monthly Fixed Charge

#### Customer Class:

Residential	\$ 24.30	\$ 24.30
General Service < 50kW	\$ 17.36	\$ 17.36
General Service > 50kW	\$ 96.98	\$ 96.98

### Monthly Variable Charge per kWh

Customer Class:

Residential	\$ 0.0053	\$ 0.0053
General Service < 50kW	\$ 0.0180	\$ 0.0180
General Service > 50kW	not applicable	not applicable

### Monthly Variable Charge per kW

Customer Class:

Residential	not applicable	not applicable
General Service < 50kW	not applicable	not applicable
General Service > 50kW	\$ 3.9297	\$ 3.9297

**NOTE:** \$0.60 per kW will be deducted in cases where the transformer is owned by the customer.

### Consumption Assumptions

Residential Customers:	<b>741.78</b> kWh per Month
All Other Customers:	Will be evaluated on an individual basis

### Financial Assumptions

Borrowing Rate:	6.910%	(1)
Rate of Return on Common Equity:	9.580%	(1)
Debt/Equity Ratio:	60/40	(1)
Marginal Income Tax Rate:	21.000%	(1)
Capital Cost Allowance Rate:	8.000%	

(1) COS Application rates (Ontario Energy Board) Regulated; Subject to periodic change.

### Operating, Maintenance and Admin Expenditures (Annual Amounts)

Residential Customer:	\$ 158.91
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All Other Customers:

$$[( \$33.08 \quad X \quad \text{Estimated Peak}) + \$ 188.64] / 2$$

**These figures are based on Actual 2017 Results.**

### **Capital Cost**

Residential Customers: \$4,000.00 per unit for work internal to the development.

All Other Customers: Internal and external costs will be evaluated on an individual basis. The capital cost may be based on either an estimate or actual costs depending on the nature of the project. Energy+'s Offer to Connect will indicate applicable costs.

### **Residential Rebate Amount**

#### **Former Cambridge and North Dumfries Hydro Service Territory**

Residential Rebate Amount = \$2,012.00

#### **Former Brant County Power Service Territory**

This standard rebate amount applies to subdivision agreements signed with Energy+ Inc. Rebate amounts for residential subdivisions serviced with the former Brant County Power will be individually calculated.

Residential Rebate Amount = \$1,843.00

**Note:** This rebate applies to all residential services signed with CND Hydro or Energy+ Inc. subject to a subdivision servicing agreement dated November 1, 2000 or later that are energized between May 1, 2018 and December 31, 2018. Rebate amounts for residential subdivisions serviced with the former Brant County Power will be individually calculated. Rebate is payable once electrical service to the home is energized. Applicable rebates are paid at four month intervals. The rebate amount will be updated each year.

## **Typical Deposit Amount for Three Phase Pole Mount Transformer Bank**

\$17,807

## **Typical Deposit Amounts for Three Phase Padmount Transformers**

150kVA:	\$12,228
300kVA:	\$14,642
500kVA:	\$17,901
750kVA:	\$23,205
1000kVA:	\$26,097
1500kVA:	\$32,012
2000kVA:	\$40,070
3000kVA:	\$56,399

### **HST**

HST is not applicable at the time of the initial deposit.

If a capital contribution is required, it will be subject to HST. The amount of capital contribution plus HST required will be deducted from the initial deposit. A subsequent invoice may be issued at that time to collect any outstanding HST. Any rebate issued to a customer is consideration for a taxable supply. HST will be calculated and paid on the rebate only if the customer is registered for HST and provides a valid HST registration number.

Interest is paid on the refunded amount under the terms and conditions listed below.

### **Deposit Policy**

#### **Cheque**

(a) Interest will accrue from the date of receipt of the deposit, and will be calculated for whole months to the date of the final billing or the refund of the deposit.

(b) The interest will be accrued based on annual simple interest rates equal to the Prime Business Rate set by the Bank of Canada less 2 percent.

(c) At the time of deposit refund, the applicable interest will be paid.

(d) If a project does not proceed for which a deposit has been previously taken, a refund will be made less any costs already incurred by Energy+. This refund will only be paid after Energy+ has another use for any transformers, equipment, material, etc. already ordered or delivered for the planned project.

## **Letter of Credit**

A Letter of Credit may be provided as security in lieu of a cheque. This security shall be in the form of an irrevocable Letter of Credit from a Financial Institution acceptable to **ENERGY+ INC.**, expressed to be pursuant to the work being undertaken and payable to **ENERGY+ INC.** at any time, or in part from time to time, on written demand of the **VICE PRESIDENT**. The irrevocable Letter of Credit shall contain the following clause:

"We agree to advise you before one (1) month prior to the expiry date set out above as to whether this Letter of Credit has been or will be renewed by us and if we fail to do so then this Letter of Credit shall be deemed to be automatically renewed for a further year and so on from year to year thereafter."

All or part of the Letter of Credit will be paid to Energy+ Inc. if there is not a full rebate of the deposit amount when the calculation is completed. No interest is applicable for security in the form of a Letter of Credit. If a project does not proceed for which a Letter of Credit has been previously taken, a release of the Letter of Credit will be made less any costs already incurred by Energy+. This release will only be made after Energy+ has another use for any transformers, equipment, material, etc. already ordered or delivered for the planned project. Energy+, in its sole discretion, may make a full draw on the Letter of Credit if there is not an immediate use for the transformers, equipment, material, etc. already ordered or delivered.