

# ecoEnergy Retrofit Incentive

## What is it?

The ecoEnergy Retrofit Incentive is part of a suite of incentives. They are offered through the Office of Energy Efficiency to improve energy conservation and energy efficiency in every sector of the Canadian economy.

The Incentive was launched April 1, 2007 and is scheduled to end March 31, 2011.

## Who Qualifies?



Ontario food companies planning to retrofit either their industrial (factories) or commercial buildings (separated offices and warehouses) to improve energy efficiency can qualify. Companies can receive funding to help retrofit up to five separate buildings.

An industrial facility can apply for a retrofit incentive once over a 12 month period. To be eligible for assistance, an industrial facility must:

- have fewer than 500 employees
- be in operation for 12 months or more
- be registered with Natural Resources Canada's (NRCan's) [CIPEC leadership network](#). (See Appendix D for an explanation of the CIPEC leadership network.)

**Knowledge,  
Connections  
& Resources  
for your  
Business**

## What is the benefit to your company?



For Industrial Facilities:

The Canadian **ecoEnergy Retrofit Incentive for Industry** will contribute up to 25 percent of energy efficiency project costs. There is a maximum grant of \$50,000 for each industrial *facility*, so a single *corporation* can receive up to \$250,000. To be eligible, a project must:

- take place in a facility with fewer than 500 employees
- make a measurable and verifiable reduction in energy use
- have a net simple payback of more than one year
- require capital spending to replace or retrofit existing industrial buildings, equipment, systems and/or processes. Monitoring and targeting systems are also eligible.

The amount of funding will be calculated at 25 percent of project costs OR \$10 per gigajoule of energy savings -- for example, approximately \$0.036/kw.hr of electricity, \$0.372/cubic meter of natural gas, or \$0.386/litre of heating oil -- *whichever is less*.

Preference will be given to projects with multiple or complex energy efficiency measures, or technical issues beyond the capability of the building owners, or those that will use innovative technologies or renewable resources.

Examples of eligible and ineligible projects are found in Appendices A and B.  
Examples of the value of the program are found in Appendix C.

For Commercial Buildings:

The Canadian **ecoEnergy Retrofit Incentive for Buildings** will contribute up to 25 percent to a maximum of \$50,000 towards the cost of energy saving projects in non-industrial buildings that measure less than 10,000 square metres. Eligible buildings include offices, warehouses, retail outlets, restaurants, municipal buildings, schools, and so on. The amount of funding will be calculated on \$10 per gigajoule of energy savings – for example, approximately \$0.036/kw.hr of electricity, \$0.372/cubic metre of natural gas, or \$0.386/litre of heating oil.

## How do I apply?

For the **Industrial Retrofit Incentive**, you submit an electronic [request](#) to NRCan to obtain the ecoENERGY Retrofit Incentive application. NRCan will send the package to the e-mail address you have provided. To receive it by fax, call NRCan at 613-992-3422.

For the **Commercial Retrofit Incentive** you will need to use version 4.1 of the [application guide and forms](#) found on the website.

This program ends March 31, 2011.

## Where can I find more information?

For the Industrial Program, can contact the Senior Industry Analyst at the address below or go to the website to see this and other available incentives.

**Website:** <http://www.oe.nrcan.gc.ca/corporate/programs.cfm?attr=24#retrofit>

Industrial Programs Division  
Office of Energy Efficiency  
Natural Resources Canada  
580 Booth St., 12th Floor  
Ottawa, ON K1A 0E4  
Tel: 613-996-6891  
Fax: 613-992-3161

For the Commercial Program contact:

Office of Energy Efficiency  
Natural Resources Canada  
580 Booth St., c/o Observatory #3  
Ottawa ON K1A 0E4  
Phone: 613-992-3245 or 1-877-360-5500  
Fax: 613-947-4121

**Website:** <http://www.oe.nrcan.gc.ca/corporate/programs.cfm?attr=24#retrofit>

## We're here to help!

To find out how the Business Development Branch at OMAFRA can provide you with knowledge, connections, and resources to help you grow your business, call toll-free at 1-888-466-2372 extension 64474 or e-mail at [foodinvest@ontario.ca](mailto:foodinvest@ontario.ca). For information about this program and others, as well as our branch, visit [www.omafra.gov.on.ca/english/food](http://www.omafra.gov.on.ca/english/food).

## Examples of Eligible Retrofit Projects

### **Building Envelope**

- Insulation upgrades
- Building weatherization
- Window and/or door replacement
- Air curtain installation

### **Lighting Systems**

- Installation of energy-efficient lighting systems
- Application of occupancy sensors
- Exit light replacement (e.g. LEDs)

### **HVAC Systems**

- Improvements in airflow balance and circulation
- Modifications or application of control systems
- Waste heat recovery (e.g. for intake and make-up air)

### **Compressed Air Systems**

- Individual compressor control applications
- Improvements in closed-loop system design
- Reduction of air leaks

### **Fans, Blowers and Pumps**

- Process optimization
- Size optimization
- Improvements in system configuration

### **Motor and Drive Systems**

- Application of multi-speed motors
- Application of variable-speed drives
- Gearbox elimination
- Motor rewinding for increased efficiency

### **Water-Heating Systems**

- Size optimization
- Improvements in system configuration
- Reduction of water-heating load/loss
- Insulation upgrades

### **Chillers, Cooling and Refrigeration Systems**

- Installation of economizers
- Introduction of more efficient cooling methods
- Cooling temperature optimization
- Improvements to control system
- Installation of double-bundle chiller

### **Boiler Plant Systems**

- Reduction of blow-down heat loss
- Operational improvement measures
- Waste heat recovery for increasing feed water temperature
- Installation of economizers
- Improvement of steam distribution system integrity (e.g. traps, insulation)

### Examples of Eligible Retrofit Projects (continued)

#### **Combustion Systems**

- Replacement of hardware – high-efficiency burners
- Maximizing combustion efficiency
- Combustion upgrades

#### **Process Dryers, Furnaces and Kilns**

- Process optimization
- Improvements and upgrades in insulation
- Improvements in control system

#### **Other Energy Efficiency Measures**

- Replacement or retrofit of inefficient equipment
- Application of energy-efficient transformers
- Waste heat recovery (e.g. from flue gas, steam condensate, exhaust air, etc.)
- Process insulation upgrades and improvements
- Other

## Examples of Ineligible Retrofit Projects

Behavioral or operational changes, or projects that save money on energy bills, but do not demonstrate measurable and verifiable energy savings are all good energy management practices, but are not measures [eligible](#) for the ecoENERGY Retrofit Incentive.

Examples of such measures include:

### Power-Conditioning Projects

- Power factor correction
- Lighting voltage regulation
- Compact fluorescent lamps not equipped with electronic ballasts
- Harmonic current reduction
- Transient voltage protection
- Installation of voltage- and power-reducing equipment
- Other power-conditioning measures (uninterruptible power supplies, rectifiers, etc.)

### Black Box Solutions

Software or hardware devices (e.g. magnetic treatment of fuel) whose functioning cannot be explained by applying mainstream engineering knowledge and theories and whose efficiency is not and/or cannot be supported with certified test results

### Other Projects

- Load-shifting/load-management measures
- New buildings or plant expansions
- Application of technologies that do not involve a replacement or modification to existing equipment or save energy
- Measures that are not permanently installed (plug-in equipment)
- Behavioural or operational changes that save energy
- Projects to repair or maintain existing equipment
- Recommissioning activities
- Metering not directly associated with an eligible project
- Projects that result in negative environmental or health effects

### Value of Incentive - Industrial Program

The maximum incentive per application is 25 percent of project costs or \$50,000, whichever is less. The incentive will be calculated on a project basis after taking into account funding from other sources and will be the lowest of the following amounts:

\$10 per gigajoule (GJ) of energy estimated to be saved by a retrofit project per year  
 = **estimated annual GJ of energy saved × \$10**

25 percent of the total eligible project costs (including GST, HST and PST net of tax rebate and other incentives)  
 = **25% × [total project cost – other incentives]**

amount required to reduce the net simple payback period for each project to no less than one year  
 = **dollars of annual energy savings × (net payback period in years – 1 year)**

<b>Example 1: Single-Project Application</b>	<b>Incentive is the lowest of the three following calculations:</b>
Annual GJ savings: 450 GJ Retrofit cost: \$11,000 Est. savings/yr: \$8,000 Other funding: \$0	A) GJ saved = $450 \times \$10 = \$4,500$  B) 25 percent of eligible project costs = $0.25 \times (\$11,000 - 0) = \$2,750$  C) Payback-period reduction = $\$8,000 \times (11000/8000 - 1) = \$3,000$
Therefore:	Company's contribution: \$8,250 NRCan's contribution: \$2,750

## Value of Incentive - Industrial Program (continued)

The following example illustrates how the incentive will be calculated when there is more than one project in an application.

<b>Example 2: Multi-Project Application</b>	Incentive is the lowest of the three following project calculations:
<p>Project 1 GJ savings/yr:</p> <p>Project 1: 200 GJ Project 2: 423 GJ Project 3: 1742 GJ</p> <p>Retrofit costs:</p> <p>Project 1: \$2,500 Project 2: \$50,000 Project 3: \$39,500</p> <p>Other funding:</p> <p>Project 3: \$5,000</p> <p>Est. savings/yr:</p> <p>Project 1: \$ 2,000 Project 2: \$ 4,230 Project 3: \$17,420</p>	<p>Project 1 A) GJ saved = <math>(200 \times \\$10) = \\$2,000</math> B) 25 percent of eligible project costs = <math>(\\$2,500 \times 0.25) = \\$625</math> C) Payback period = <math>\\$2,000 \times (2500/2000 - 1) = \\$500</math> = Incentive based on C = \$500</p> <p>Project 2 A) GJ saved = <math>(423 \times \\$10) = \\$4,230</math> B) 25 percent of eligible project costs <math>(\\$50,000 \times 0.25) = \\$12,500</math> C) Payback period = <math>\\$4,230 \times (\\$50,000/\\$4,230 - 1) = \\$45,770</math> = Incentive based on A = \$4,230</p> <p>Project 3 A) GJ saved = <math>(1742 \times \\$10) = \\$17,420</math> B) 25 percent of eligible project costs = <math>\\$39,500 - \\$5,000 = \\$8,625</math> D) Payback period = <math>\\$17,420 \times ((\\$39,500 - \\$5,000)/\\$17,420 - 1) = \\$17,080</math> = Incentive based on B = \$8,625</p>
Therefore:	<p>Company's contribution: \$ 73,645 NRCan's contribution: \$13,355 Other funding: \$5,000</p>

## Canadian Industry Program for Energy Conservation (CIPEC) Leadership Network

The CIPEC Leaders network is part of the [Canadian Industry Program for Energy Conservation \(CIPEC\)](#), a joint industry-Government of Canada program that is sponsored by Natural Resources Canada (NRCan). Today, more than [1000 facilities](#) from a wide range of industrial sectors have registered their commitment to energy-saving improvements with CIPEC.

It is easy to become a CIPEC Leader. Go to their website <http://www.oee.nrcan.gc.ca/industrial/opportunities/cipecleader/commitment-letter.cfm?attr=24> to join and reap the benefits of membership including:

### Financial incentives

- access to the ecoENERGY [Retrofit incentive](#) for the implementation of energy-saving projects at small- and medium-sized industrial facilities.
- eligibility for an ecoENERGY [assessment incentive](#) for process integration (PI) studies.
- discounts to attend NRCan's [Dollars to \\$ense energy management workshops](#).

### A wealth of information at your fingertips

- access to [NRCan's industry officers](#) to help you find what you are looking for, whether it is information on energy-related incentive programs, support for research and development, technical guidebooks or case studies.
- access to on-site [customized workshops](#).

### Recognition as a corporate leader

- a plaque that your company can proudly display
- inclusion of your company's name on Natural Resources Canada's Web site, where all [CIPEC Leaders](#) are listed.
- inclusion in [CIPEC's annual report](#), which is distributed to senior government and corporate decision-makers across Canada.
- a feature story in [Heads Up CIPEC](#), should you want to publicize your energy efficiency success stories.

Knowledge, Connections and Resources for your Business