

# Program Information CBIP II

<http://oee.nrcan.gc.ca/cbip> - 1-877-360-5500

## Commercial Buildings - An Energy Efficiency Opportunity

All sectors of the Canadian economy can become part of the solution to the climate change challenge. Plenty of opportunities exist for the commercial sector to improve its overall energy performance.

Building owners and developers can seize the opportunity to incorporate energy efficiency into the design of new buildings and achieve the benefits of energy efficiency while saving money at the same time they help Canada meet its international commitment to reduce greenhouse gas emissions.

As building designers, developers and owners, it is in your interest to make sure that your buildings are as energy-efficient and cost-effective as they can be. Natural Resources Canada's (NRCan's) Commercial Building Incentive Program (CBIP) can help make energy efficiency work for you and your bottom line. The program has been extended to March 31, 2004, and now includes industrial buildings.

### Determining Eligibility

A contribution will be available to individuals, profit and non-profit organizations, institutions, provincial, territorial, regional and municipal governments, and certain federal crown corporations. New or extensively renovated industrial, commercial or institutional buildings that are heated and/or cooled, intended for occupancy, and constructed to the program criteria will be eligible.

To qualify for the incentive, a building must be at least 25 percent more energy-efficient than if it were constructed to meet the requirements of the *Model National Energy Code for Buildings* (MNECB). Published in September 1997, the MNECB is a comprehensive energy efficient building code that takes into account variations in regional climate conditions and energy costs - a first for Canada.

### Demonstrating Eligibility

In the case of large buildings, the applicant must use EE4.CBIP energy performance simulation software to demonstrate that a proposed design will meet the 25 percent qualifying level. EE4.CBIP estimates annual energy costs for the building as designed, and for the same building constructed to the MNECB standard.

To encourage builders of small commercial buildings to participate in CBIP, prescriptive packages of energy efficiency measures for specific types of buildings are included in our Technical Guide. When these energy efficiency measures are included, the design will be deemed to meet the qualifying level.

### Incentive Amount

CBIP is intended to help offset the extra cost of designing energy-efficient buildings. The CBIP incentive for a building that meets the program criteria will be calculated as a one-time financial incentive equal to twice the difference between the estimated annual energy costs if the building were constructed to the MNECB standard, to a maximum of \$60,000 or the total design costs, whichever is less.

#### Example:

Estimated annual energy costs  
if constructed to MNECB  
requirements: → \$100,000

Estimated annual energy costs  
of CBIP approved design: → \$75,000

Estimated annual energy  
cost savings: → \$25,000

CBIP contribution: \$50,000 (25,000 X 2)

Multiple Expressions of Interest for replicated designs are permitted up to 12 times or a maximum of \$500,000 per recipient.

### Benefits

Energy-efficient buildings yield long-term energy savings. Lower operating costs increase the resale value of the building, and provide a competitive leasing advantage over standard buildings.

This incentive will allow developers to become familiar with energy-efficient practices, and will help future energy design strategy decisions.

### How CBIP Works

Building owners should provide NRCan with an Expression of Interest form which indicates their intention to construct an energy-efficient building, with its size, type of occupancy and location.

As CBIP is a discretionary program, NRCan will confirm the availability of funds, and the applicant will complete detailed design work and provide NRCan with completed design worksheets (part of the Technical Guide). If the design qualifies for an incentive, NRCan will enter into a contribution agreement with the owner, specifying an initial payment of 80 percent of the approved contribution amount. The remaining 20 percent will be paid upon receipt of proof of construction to design specifications.

### Costs and Savings

Costs and savings will vary with building type, type of construction, region, price of energy used, occupancy and operating schedules. Following are some of the key elements to consider.

### Building Mechanical Systems and Equipment

Better controls, more efficient equipment and heat recovery can add to up-front costs, but also allow for heating, reheat, and cooling equipment size reductions which significantly lower costs. Costs for water piping for hot or chilled water can be substantially reduced. In general, large buildings with built-up mechanical systems will experience savings in mechanical equipment costs, while buildings with simple systems will have similar costs, whether built to qualify for CBIP or not.

### Building Electrical and Lighting Systems

Improved control, the use of daylighting with fewer lighting fixtures and lower-wattage lighting fixtures with longer lamp life will lower electrical loads for lighting and mechanical equipment. Cooling equipment capacity reduction, the use of smaller electrical panels, distribution systems, main service size and transformer sizes can lead to substantial cost savings.

### Floor Area Required for Equipment

The smaller equipment size of mechanical and electrical equipment will require less floor area, which will result in a net cost saving.

### Building Maintenance Costs

Maintenance and repair costs for energy-efficient building mechanical systems should be less than those for conventional buildings. Savings realized by having less equipment and shorter operating hours may be partially offset by the costs involved in maintaining systems of added complexity. For lighting systems, however, having fewer lamps and/or longer lamp life will result in significantly reduced maintenance costs.

## Other Program Elements

To support delivery of the incentive program, NRCan provides

- EE4.CBIP software, which is available free of charge from the CBIP Web site.
- A Technical Guide and training courses for designers on energy-efficient design practices and energy performance simulation.

In addition, CBIP continues to

- work closely with utilities, other governments and equipment and systems suppliers to ensure that energy efficiency technology is readily available for installation in buildings;
- develop an energy efficiency labelling program to increase the awareness of CBIP buildings and to promote market acceptance of energy efficient design and construction practices.

### For Detailed Information

For information on specific eligibility requirements and how you can participate, please contact

## Commercial Building Incentive Program

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