

# CANADA

## 1. GOALS FOR EFFICIENCY IMPROVEMENT

### 1.1. Overall Energy Efficiency Improvement Goals

The separation of powers between the federal and provincial/territorial levels of government is an important consideration in Canada. Canada has no federal energy efficiency improvement target. Federal programs have quantitative objectives. There are many examples of collaboration with provincial/territorial energy efficiency programs.

Sub-federal governments have committed to achieving a 20% increase in energy efficiency by 2020 in their respective jurisdictions. These jurisdictions cover the entire economy. For more details, please see the following link: [www.councilofthefederation.ca/pdfs/COMMUNIQUE\\_E\\_climate\\_change\\_July13\\_\[1\]clean.pdf](http://www.councilofthefederation.ca/pdfs/COMMUNIQUE_E_climate_change_July13_[1]clean.pdf).

### 1.2. Sectoral Energy Efficiency Improvement Goals

Not available

### 1.3. Action Plans for Promoting Energy Efficiency

#### a) Name

EcoENERGY Efficiency Initiative

#### b) Objectives

The ecoENERGY Efficiency Initiative, operated through Natural Resources Canada's Office of Energy Efficiency (OEE), provides a broad framework of programs through which energy conservation and energy efficiency are promoted in every sector of the Canadian economy. The ecoENERGY Efficiency suite of programs offers grants and incentives, tools, benchmarking and analysis, and training and awareness-building (for example, workshops, publications) to support energy efficiency improvements in industry, transportation and the built environment. In addition to coordination of the ecoENERGY Efficiency Initiative, the OEE is mandated to strengthen and expand Canada's commitment to energy efficiency to further support the Government of Canada's policy objectives and programs.

Complementary energy efficiency actions are undertaken at federal and provincial/territorial levels. A framework for energy efficiency action by all levels of government was endorsed in 2007 by Canada's Council of Energy Ministers, representing all federal, provincial and territorial jurisdictions. The document, *Moving Forward on Energy Efficiency in Canada: A Foundation for Action*, provides a menu of key policy instruments and tools available to all jurisdictions to allow them to meet their own policy objectives.

#### c) Objectives

Industry, transportation, residential, commercial

#### d) Outline

The four-year ecoENERGY Efficiency Initiative was introduced in 2007 to help Canadians use energy more efficiently, boost renewable energy supplies and develop cleaner energy technologies. Based on recent announcements, the ecoENERGY Efficiency Initiative includes:

- ecoENERGY Retrofit (CDN 805 million) encourages retrofitting by homeowners, small and medium-sized businesses, public institutions and industrial facilities by providing financial support and authoritative information
- ecoENERGY for Buildings and Houses (CDN 60 million) encourages construction and operation of more energy-efficient buildings and houses using complementary activities such as rating, labelling, training and other tools to raise awareness

- ecoENERGY for Industry (CDN 18 million) promotes energy-saving investments and exchange of best-practices information within Canada's industrial sector
- ecoENERGY for Fleets (CDN 22 million) reduces on-road fleet vehicle fuel-use and its associated costs, air pollutants and GHG emissions through training, education, and sharing of best practices
- ecoENERGY for Personal Vehicles (CDN 21 million) provides information on buying, driving and maintaining vehicles to reduce fuel consumption and GHG emissions
- ecoENERGY for Equipment (CDN 32 million) builds on existing initiatives to help Canadians make energy-efficient choices when buying, selling or manufacturing energy-using equipment.

Existing regulations will be made more stringent, new regulations will be developed and compliance will be enforced. The program also supports promotional labelling programs, such as ENERGY STAR®, to ensure continuing efficiency improvements in energy-using products for sale in the Canadian market. A regulatory agenda under the authority of the Energy Efficiency Act will introduce or raise energy efficiency standards for a wide range of energy-using products. As a result, regulations will soon cover products accounting for 80% of the energy used in homes and businesses. For more information on all the ecoENERGY Efficiency initiatives, see <http://ecoAction.gc.ca>.

#### **e) Financial regulations and budget allocation**

Between 2007 and 2011, total allocations to the ecoENERGY Efficiency suite of programs will be CDN 960 million. For financial allocations to the ecoENERGY suite of initiatives, see A Climate Change Plan for the Purposes of the Kyoto Protocol Implementation Act at [www.ec.gc.ca/doc/ed-es/p\\_124/CC-Plan-2008\\_eng.pdf](http://www.ec.gc.ca/doc/ed-es/p_124/CC-Plan-2008_eng.pdf) and the 2009 Federal Budget at [www.budget.gc.ca/2009/home-accueil-eng.asp](http://www.budget.gc.ca/2009/home-accueil-eng.asp).

#### **f) Monitoring**

Program departments are responsible for monitoring and reporting on their individual programs. Natural Resources Canada's efforts are compiled into the Report to Parliament under the Energy Efficiency Act, which is tabled annually in Parliament by the Government of Canada. The Office of Energy Efficiency also produces a publically available report on Energy Efficiency Trends in Canada (and its companion document, Energy Use Data Handbook).

#### **g) Expected results**

The benefits of this action plan are estimated in terms of emissions reductions in A Climate Change Plan for the Purposes of the Kyoto Protocol Implementation Act, which is available at [www.ec.gc.ca/doc/ed-es/p\\_124/CC-Plan-2008\\_eng.pdf](http://www.ec.gc.ca/doc/ed-es/p_124/CC-Plan-2008_eng.pdf). Product efficiency standards and labelling is expected to reduce emissions by over four million tonnes (CO<sub>2</sub>-eq) in 2012, retrofits of buildings, homes and industry by more than three million tonnes, and various other efficiency-based emission reductions contribute to the total expected reductions.<sup>1</sup>

### **1.4. Institutional Structure**

#### **1.4.1. Office of Energy Efficiency, Natural Resources Canada**

##### **a) Status of organisation**

Governmental organisation (policymaker and regulator)

##### **b) Roles and responsibilities**

The Office of Energy Efficiency (OEE), Canada's centre of excellence for energy

<sup>1</sup> The entire set of mitigation programs described in the action plan is estimated to provide a total reduction of 56 million tonnes in 2012.

conservation, energy efficiency and alternative fuels information, plays a dynamic leadership role in helping Canadians save millions of dollars in energy costs while contributing to a healthier environment. One of the key tasks of the OEE is managing the Government of Canada's ecoENERGY Efficiency Initiative, with its programs to reduce energy use in buildings and houses, industry, personal vehicles and fleets. Homeowners and owners of small and medium-sized organisations can also apply for grants and financial incentives for retrofits.

The OEE provides practical energy conservation advice to consumers, businesses and institutions, and has links to hundreds of related sites around the world. Informing key decision-makers in government, industry and the non-profit sector about Canada's energy conservation and energy efficiency efforts is a major focus of the OEE.

With the assistance of the National Advisory Council on Energy Efficiency, the OEE is also charged with identifying opportunities for new and heightened energy efficiency measures. As well, it keeps Canadians abreast of developments in technology that can conserve fossil fuels or support the transition to less carbon-intensive energy sources, including renewable energy. The OEE also engages in dialogue and collaborative action on energy efficiency with Canada's provinces and territories.

**c) Covered sectors**

Industry, transport, residential, commercial, equipment and consumer products

**d) Established date**

April 1998

**e) Number of staff members**

Approximately 275

**1.4.2. Regional and local institutions**

Canada is a federation comprised of a federal government and 13 sub-federal entities. These sub-federal entities are active in the field of energy efficiency and have organisational structures of their own. Many energy utilities are also active in provincial/territorial policy and programming. Information on provincial/territorial incentives is provided by the OEE Directory of Energy Efficiency and Alternative Energy Programs in Canada: [http://oee.nrcan.gc.ca/corporate/statistics/neud/dpa/policy\\_e/programs.cfm?attr=0](http://oee.nrcan.gc.ca/corporate/statistics/neud/dpa/policy_e/programs.cfm?attr=0).

**1.4.3. Coordination**

In Canada, the separation of powers means that all levels of government exercise some jurisdiction in the area of energy use. As such, coordination is a key aspect of federal energy efficiency policy. Coordination among the federal level and sub-federal entities is ensured through annual meetings of the Council of Energy Ministers and regular meetings of the Assistant Deputy Ministers' Steering Committee on Energy Efficiency. This process seeks to generate a complementary agenda for energy efficiency in which Ministers continue to develop real and sustainable energy solutions in their own jurisdictions and collaborate on cross-cutting initiatives that require a more integrated approach.

**1.5. Information Dissemination, Awareness-raising and Capacity-building**

**a) Information collection and dissemination**

Information dissemination is the responsibility of individual program departments, which cooperate with stakeholders in government, industry, and civil society. Comprehensive information on OEE programs and related energy efficiency issues is available on the OEE website at <http://oee.nrcan.gc.ca/english/>.

**b) Awareness-raising**

Specific awareness-raising programs are included in the ecoENERGY Efficiency Initiative:

- ecoENERGY for Equipment supports the energy labelling of a wide range of consumer goods. EnerGuide labels rate and summarise the energy efficiency of major household electrical appliances and heating, ventilating and air-conditioning (HVAC) equipment. The EnerGuide label shows how much energy major appliances use so that consumers can easily compare models of the same size and class. The ENERGY STAR® symbol identifies the most energy-efficient products in their class. Products that carry the ENERGY STAR® symbol meet premium levels of energy efficiency—most are 10% to 50% more efficient than the minimum regulated standard.
- ecoENERGY for Personal Vehicles provides Canadian motorists with helpful tips on buying, driving and maintaining their vehicles to reduce fuel consumption and greenhouse gas emissions.
- ecoENERGY for Fleets provides information to fleet operators on energy-efficient practices that can reduce fuel consumption and emissions. FleetSmart is a component of this program, offering free practical advice on how energy-efficient vehicles and business practices can reduce fleet operating costs, improve productivity and increase competitiveness.

### c) Capacity-building

EcoENERGY for Buildings and Houses includes a focus on providing home builders with the specific energy efficiency training required to certify an R-2000 home or affix an EnerGuide rating label. The R-2000 Standard includes requirements related to energy efficiency, indoor air quality and the use of environmentally responsible products and materials. It does not specify exactly how a house must be built, but rather, sets criteria for building performance that allow designers and builders to choose the most effective and economical way to build in their given context.

Through ecoENERGY for Industry, the OEE offers a range of energy efficiency workshops to representatives from industrial, commercial and institutional organisations from across Canada. The Dollars to \$ense workshops are designed to educate participants on how to lower operating and production costs, improve competitiveness, reduce greenhouse gas emissions, increase operational efficiency and create a better work environment.

The ecoENERGY for Fleets SmartDriver program is designed to promote energy efficiency as a cost-effective and responsible way to reduce costs and the environmental impact of fleet operations. The training module offers fleet managers information on energy efficiency in all aspects of their fleet, including maintenance, operations and driving. An information toolkit, case studies and fleet profiles as well as workshops and technical demonstrations are provided. SmartDriver courses are also available for forestry truck drivers, motor coach drivers, and transit and school bus drivers.

EcoENERGY for Personal Vehicles offers driver education materials on fuel-efficient driving techniques. A number of driving schools throughout Canada are registered to deliver the 'Auto\$mart' driver education program.

## 1.6. Research and Development in Energy Efficiency and Conservation

### 1.6.1. Policy: CanmetENERGY

#### a) Level

Economy-wide (federal)

#### b) Responsible department

CanmetENERGY, Natural Resources Canada

#### c) Applicable sectors

Buildings and communities, industry, transportation

**d) Outline**

Natural Resources Canada's energy efficiency technology activities are guided by CanmetENERGY. CanmetENERGY manages science and technology programs and services, supports the development of energy policy, codes and regulations, and works with partners to develop more energy efficient and cleaner technologies. Its goal is to ensure that Canada is at the leading edge of clean energy technologies to reduce air and greenhouse gas emissions, and provide a sustainable energy future. See the CanmetENERGY website at <http://canmetenergy-canmetenergie.nrcan-rncan.gc.ca/eng/index.html>.

Efforts at CanmetENERGY include research, development and demonstration of energy efficient technologies in buildings and communities, industry and transportation.

- 1) Buildings and Communities—Net zero buildings and communities, modelling and simulation software tools, advanced heating, ventilation, air conditioning and refrigeration technologies. For more information, see the website: [http://canmetenergy-canmetenergie.nrcan-rncan.gc.ca/eng/buildings\\_communities.html](http://canmetenergy-canmetenergie.nrcan-rncan.gc.ca/eng/buildings_communities.html).
- 2) Industry— Includes knowledge and new technological tools such as industrial energy systems and industrial systems optimisation. For more information, see the website: [http://canmetenergy-canmetenergie.nrcan-rncan.gc.ca/eng/industrial\\_processes.html](http://canmetenergy-canmetenergie.nrcan-rncan.gc.ca/eng/industrial_processes.html).
- 3) Transportation—Includes advanced fuels, hybrid and electric vehicles, hydrogen and fuel cells. For more information, see the website: <http://canmetenergy-canmetenergie.nrcan-rncan.gc.ca/eng/transportation.html>.

**e) Financial resources and budget allocation**

Energy efficiency science and technology (S&T) expenditures were CDN 98.9 million for the 2007–08 fiscal year. For more information on S&T expenditures, see the annual Report to Parliament under the Energy Efficiency Act.

**1.6.2. Program: ecoENERGY Technology Initiative****a) Level**

Economy-wide (federal)

**b) Responsible department**

Natural Resources Canada's Office of Energy Research and Development (OERD) is the Government of Canada's coordinator of energy research and development activities. OERD is responsible for the ecoENERGY Technology Initiative which support the energy-related R&D activities of federal departments, including CanmetENERGY at Natural Resources Canada.

**c) Objectives and period**

The ecoENERGY Technology Initiative is a CDN 230 million investment over five years in S&T by the Government of Canada to accelerate the development and market readiness of technology solutions in clean energy. The Initiative is a component of ecoACTION, the government's actions towards clean air and greenhouse gas emission reductions. It will help in the search for long-term solutions to reducing and eliminating air pollutants from energy production and use. See [www.ecoaction.gc.ca/ecoenergy-ecoenergie/technology-technologie-eng.cfm](http://www.ecoaction.gc.ca/ecoenergy-ecoenergie/technology-technologie-eng.cfm).

**d) Applicable sectors**

Industry, transport, residential and commercial

**e) Financial resources and budget allocation**

CDN 230 million

**f) Expected results**

Technology funding is being provided to projects for energy efficient buildings and industry, as well as clean-coal, carbon sequestration, and new end-use technologies such as hydrogen and fuel cells. The Initiative will also develop technologies for producing and using renewable energy from clean sources such as wind, solar, tidal, and biomass. For more information, see [www.nrcan.gc.ca/eneene/science/index-eng.php](http://www.nrcan.gc.ca/eneene/science/index-eng.php).

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**2. MEASURES FOR ENERGY EFFICIENCY IMPROVEMENTS****2.1. Government Laws, Decrees, Acts****2.1.1. Energy Efficiency Act****a) Level**

Economy-wide (federal)

**b) Purpose**

The goal of the Energy Efficiency Act is to improve the efficiency of energy-using products and promote the use of alternative energy sources. The Energy Efficiency Act includes and enforces regulations on performance and labelling requirements for energy-using products that are imported into Canada or shipped across provincial borders for the purpose of sale or lease.

**c) Applicable sectors**

Equipment and consumer products

**d) Outline**

Canada's Energy Efficiency Act came into force in 1992, giving the Government of Canada the authority to make and enforce standards for the performance of energy-using products that are imported to Canada or that are manufactured in Canada and shipped across provincial or territorial borders. The Act also gives the federal government the authority to set labelling requirements for these products so consumers can compare the energy efficiency of various models of the same product. The first set of regulations, based on standards and testing methods developed by the Canadian Standards Association, came into effect in 1995. These regulations applied to a variety of products, primarily major appliances such as dishwashers, water heaters, refrigerators, freezers and clothes washers and dryers. The Act has been amended a number of times for several purposes: to include more products in the regulations, to tighten the standards as energy-efficiency technologies improved and to adjust labelling requirements.

**2.1.2. Canadian Environmental Protection Act****a) Level**

Economy-wide (federal)

**b) Purpose**

Pollution prevention

**c) Applicable sectors**

All sectors

**d) Outline**

The Canadian Environmental Protection Act (CEPA) came into force in 2000. CEPA is an important part of Canada's federal environmental legislation that makes pollution prevention the cornerstone of efforts to reduce toxic substances in the environment. The Government of

Canada is developing new fuel efficiency regulations under CEPA to reduce greenhouse gas emissions in the automotive sector.

## 2.2. Regulatory Measures

### 2.2.1. Minimum Energy Performance Standards and Labelling

#### a) Level

Economy-wide (federal)

#### b) Purpose

To improve the energy efficiency of energy-using products

#### c) Applicable sectors

Equipment and energy-consuming products

#### d) Outline

Regulations under the Energy Efficiency Act set minimum energy-performance levels for a number of energy-using products such as appliances, lighting, and heating and air-conditioning. New MEPS for general service lamps are expected to eliminate common incandescent lamps from the market in 2012 and reduce energy consumption of general service lamps by about 30%.<sup>2</sup> Electric motors are also required to perform at a minimum efficiency level that varies according to the power of the motor.<sup>3</sup> Current efforts to broaden and strengthen the Act mean that products accounting for 80% of the energy used in homes and businesses will soon be regulated. The set of planned new regulations will address about 20 currently unregulated products such as commercial clothes washers and boilers, and will tighten requirements for 10 products such as residential dishwashers and dehumidifiers. Stricter regulations mean that, over time, inefficient products will disappear from the market, leaving only the best-performing items.

Amendments will also improve product labelling so consumers have the latest information on the most energy-efficient products on the market. Canada's EnerGuide label is used to indicate the energy performance of a wide array of products, from residential appliances, to vehicles and entire houses. It is mandatory for many electrical appliances and the amendments to the Energy Efficiency Act extend the labelling requirement to cover common lamp types as well.

The test procedures used to determine labelling information and compliance with MEPS are developed by the Canadian Standards Association. Canada works with the United States to develop common test procedures.<sup>4</sup>

#### e) Financial resources and budget allocation

A new regulatory agenda for energy efficiency standards has received funding under the ecoENERGY Efficiency Initiative of CDN 32 million.

#### f) Expected results

Improvements in the performance of energy-using products in Canada

### 2.2.2. Model National Energy Code for Buildings

#### a) Level

Economy-wide (federal)

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<sup>2</sup> Gazette (2009a).

<sup>3</sup> OEE (2009b).

<sup>4</sup> OEE (2009c).

**b) Purpose**

The Model National Building Code has been established as a complement to provincial/territorial building codes and to provide a baseline for new energy-efficient building design. The Model National Energy Code for Buildings contains cost-effective minimum requirements for energy efficiency in new buildings in Canada.

**c) Applicable sectors**

The Code applies to all buildings, other than houses of three storeys or less, and to additions of more than 10 square metres to these buildings.

**d) Outline**

In Canada, building regulation is a provincial and territorial responsibility. The provinces and territories have recognised that an economy-wide ‘model’ building code adapted to particular provincial or territorial circumstances is a better approach than a series of unrelated codes. The Model National Energy Code for Buildings (MNECB) was released in 1997 with cost-effective minimum standards for energy efficiency in new buildings. In February 2007 the Canadian Commission on Building and Fire Codes agreed to update the MNECB as a progeny companion document to the National Building Code. This work is being undertaken with the financial and technical support of Natural Resources Canada. For more information see <http://oee.nrcan.gc.ca/commercial/newbuildings/update.cfm?attr=0>.

**e) Financial resources and budget allocation**

Funding for this initiative is provided through the ecoENERGY for Buildings and Houses program.

**f) Expected results**

Increase in the energy efficiency of new buildings

**2.2.3. Fuel Consumption Regulations****a) Level**

Economy-wide (federal)

**b) Purpose**

To reduce GHG emissions and fuel consumption of motor vehicles

**c) Applicable sectors**

Transportation

**d) Outline**

The Government of Canada has announced that under the Canadian Environmental Protection Act, new fuel consumption regulations will be undertaken to reduce greenhouse gas emissions in the automotive sector starting in the 2011 model year. These standards will be equivalent to those announced by the United States in 2009.<sup>5</sup> Consultations on fuel consumption regulations have been undertaken with the automotive industry, environmental NGOs, provinces and territories, and other stakeholders.

**e) Financial resources and budget allocation**

CDN 3 million

**f) Expected results**

Reduced fuel consumption in the automotive sector

<sup>5</sup> Gazette (2009b).



### 2.3. Voluntary Measures

#### 2.3.1. Canadian Industry Program for Energy Conservation (CIPEC)

**a) Level**

Economy-wide (federal)

**b) Purpose**

The Canadian Industry Program for Energy Conservation (CIPEC) represents a collaboration between government and private industry to improve Canada's industrial energy efficiency.

**c) Applicable sectors**

Industry

**d) Outline**

CIPEC is a voluntary partnership between the Government of Canada and industry that brings together industry associations and companies representing more than 98% of all industrial energy use in Canada. Since 1975, CIPEC has been helping companies cut costs and increase profits by providing information and tools to improve energy efficiency. Current activities include:

- Incentives for industrial energy assessments (studies)
- Dollars to \$ense energy management workshops
- Employee Awareness Programs
- Information on innovative financing and accelerated capital cost allowances for energy efficient and alternative energy systems
- Benchmarking information, case studies, technical guides and the twice-monthly newsletter 'Heads Up CIPEC'
- Boiler Efficiency Calculator to quickly analyse the efficiency of boiler operations
- Energy Management Services Directory that helps companies locate contractors.

Through CIPEC, the mining, manufacturing and construction sectors have voluntarily met and exceeded annual targets to reduce their energy intensity (that is, energy use per unit of output). Upstream oil and gas companies have implemented projects to reduce GHG emissions by millions of tonnes and electrical utilities have dramatically increased their alternative energy production.

**e) Financial resources and budget allocation**

Funding for this initiative is provided through the ecoENERGY for Industry program (CDN 18 million over four years).

**f) Expected results**

Improvements to energy efficiency in the industrial sector

#### 2.3.2. Building Certification

**a) Level**

Economy-wide (federal)

**b) Purpose**

To promote energy efficient technologies and building practices

**c) Applicable sectors**

Residential

**d) Outline**

The R-2000 Standard represents a joint effort between OEE and the Canadian building industry. To receive R-2000 certification, homes must meet an energy consumption standard and incorporate certain energy efficient technologies. Builders can be trained and licensed to build to the R-2000 standard. R-2000 homes are expected to reduce energy costs and provide greater occupant comfort.<sup>6</sup> As an additional benefit, the Canadian Mortgage Housing Corporation offers mortgage assistance to buyers of R-2000 homes.<sup>7</sup>

The OEE is also developing a system to benchmark energy consumption by commercial and institutional buildings. This system is scheduled to launch in 2012/2013 and efforts are being made to harmonise this system with existing, non-governmental building certification programs, such as LEED®.<sup>8</sup>

**e) Financial resources and budget allocation**

No information available

**f) Expected results**

Greater use of energy efficient technologies and practices in new homes

**2.4. Financial Measures Taken by the Government****2.4.1. Tax Scheme***Accelerated Capital Cost Allowance for Clean Energy Generation***a) Level**

Economy-wide (federal)

**b) Purpose**

Encouraging investment in energy efficient and alternative energy technologies, in order to contribute to reductions in GHG emissions, improvements in air quality and diversification of the energy supply

**c) Application sectors**

Industry

**d) Outline**

A 50% accelerated capital cost allowance (CCA) is provided under Class 43.2 of Schedule II to the Income Tax Regulations for specified energy generation equipment. Eligible equipment must generate either 1) heat for use in an industrial process, or 2) electricity, by:

- Using a renewable energy source (for example, wind, solar, small hydro)
- Using waste fuel (for example, landfill gas, manure, wood waste) or
- Making efficient use of fossil fuels (for example, high efficiency cogeneration systems).

Class 43.2 was introduced in 2005 and is currently available for assets acquired on or after 23 February 2005 and before 2012. For assets acquired before 23 February 2005, accelerated CCA is provided under Class 43.1 (30%). The eligibility criteria for these classes are generally the same except that cogeneration systems that use fossil fuels must meet a higher efficiency standard for Class 43.2 than that for Class 43.1. Systems that only meet the lower efficiency standard continue to be eligible for Class 43.1.

In 2007, the Government of Canada extended the eligibility of the CAA to an emerging

<sup>6</sup> OEE (2009d).

<sup>7</sup> CMHC (2009).

<sup>8</sup> OEE (2009e).

source of renewable energy—wave and tidal energy—and to a broader range of applications involving active solar heating, photovoltaics, stationary fuel cells, production of biogas from organic waste, and pulp and paper waste fuels. Eligibility for Class 43.2 was also extended to assets acquired before 2020.

Budget 2008 expanded the accelerated capital cost allowance for clean-energy generation equipment to additional applications involving ground-source heat pump and waste-to-energy systems.

**e) Expected results**

Improvements to energy efficiency in the industrial sector

**2.4.2. Low-Interest Loans**

**a) Level**

Sub-federal (provinces/territories)

**b) Purpose**

To support energy efficiency investment

**c) Applicable sectors**

Industry (including agriculture), transport, residential, commercial, power and public sectors

**d) Outline**

Examples include:

- Yukon Residential Energy Management Program and Home Repair program:  
[www.esc.gov.yk.ca/energy\\_efficiency.html](http://www.esc.gov.yk.ca/energy_efficiency.html)
- Manitoba PowerSmart Residential Loan program:  
[www.hydro.mb.ca/your\\_home/residential\\_loan.shtml](http://www.hydro.mb.ca/your_home/residential_loan.shtml)
- New Brunswick Existing Homes Energy Efficiency Upgrades program:  
[www.energycynb.ca/enb/1610/Existing-Homes-Energy-Efficiency-Upgrades-Program#incentives](http://www.energycynb.ca/enb/1610/Existing-Homes-Energy-Efficiency-Upgrades-Program#incentives).

**e) Expected results**

Improved energy efficiency in the residential sector

**2.4.3. Subsidies and Budgetary Measures**

ecoENERGY Retrofit

**a) Level**

Economy-wide (federal) and sub-federal (provincial/territorial)

**b) Purpose**

Natural Resources Canada's ecoENERGY Retrofit program provides financial support to homeowners, small and medium-sized businesses, public institutions and industrial facilities to help them implement energy saving retrofits that reduce energy-related GHGs and air pollution. Provinces and territories have complementary programs that offer matching incentives.

**c) Applicable sectors**

Industrial, residential, commercial

**d) Outline**

For more information, see <http://oee.nrcan.gc.ca/corporate/retrofit-summary.cfm>.

**e) Financial resources and budget allocation**

CDN 675 million in addition to provincial/territorial funds

**f) Expected results**

Approximately 340 000 homes will be retrofitted through the Retrofit-Homes program, generating an expected savings of 0.9 million tonnes GHGs (low-end expectation). The Retrofit—Small and Medium-sized Organizations program is expected to generate 0.4 million tonnes of GHG savings.

**2.4.4. Other Incentives**

Provinces and territories offer a variety of incentives in their respective jurisdictions.

**a) Level**

Sub-federal level (provinces and territories)

**b) Applicable sectors**

All sectors

**c) Outline**

A range of program incentives are offered by federal, provincial and territorial governments and utilities. For more information on provincial/territorial incentives, consult the OEE Directory of Energy Efficiency and Alternative Energy Programs in Canada [http://oee.nrcan.gc.ca/corporate/statistics/neud/dpa/policy\\_e/programs.cfm?attr=0](http://oee.nrcan.gc.ca/corporate/statistics/neud/dpa/policy_e/programs.cfm?attr=0).

**d) Expected results**

Increase in energy efficiency and reduction in greenhouse gas emissions

**2.5. Energy Pricing**

Market-based

**2.6. Other Efforts for Energy Efficiency Improvements****2.6.1. Cooperation with Non-Government Organisations**

Office of Energy Efficiency programs cooperate with numerous interested partners, including NGOs (for example, ecoENERGY for Personal Vehicles support of pilot driver education program with New Brunswick Lung Association).

**2.6.2. Cooperation through Bilateral, Regional and Multilateral Schemes**

Canada continues to participate with the United States and Mexico to promote the harmonisation of energy efficiency test methods, mutual recognition of conformity assessment systems for energy efficiency standards, and cooperation on trilateral energy efficiency labelling programs.

Canada is a member of the International Energy Agency, supporting its activities and participating in its Energy Efficiency Working Party. Canada is also a member of the International Partnership for Energy Efficiency Cooperation.

**2.6.3. Other Cooperation/Efforts for Energy Efficiency Improvements**

Public-private partnerships are commonly used to support a broad range of energy efficiency investment, especially in the public sector, such as through the Federal Buildings Initiative (FBI). The FBI offers services and products to help simplify and remove much of the risk of implementing a retrofit project. Partnerships are also used extensively during the technology development and demonstration process, such as through Canadian Mortgage and Housing Corporation (CMHC) initiatives. Regular cooperation occurs through the partnerships and demonstration projects between CMHC and financial institutions.

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