

Canada's GHG emissions reductions policies

Industry in Canada is responsible for a third of the country's GHG emissions. Policies to reduce these emissions mainly consist of voluntary mechanisms but the government has plans to introduce new regulatory measures, such as an industrial emissions standards system.

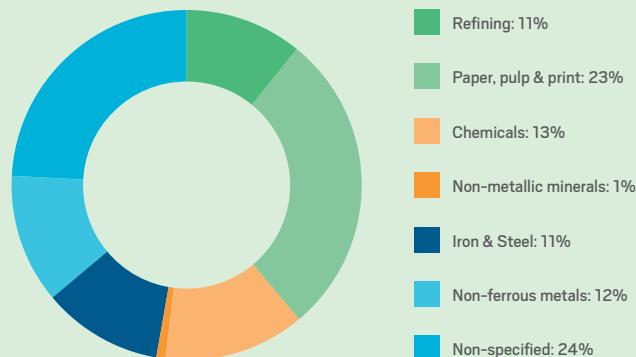
ENERGY PROFILE

The industry sector was responsible for 32 percent of all CO₂ emissions in Canada in 2009. Manufacturing, mining and quarrying accounted for 17 percent of total emissions and other energy-intensive industries accounted for 13 percent.

The Canadian industry sector primarily uses energy to produce heat, generate steam and provide motive power. Natural gas meets 32 percent of the energy needs of the sector, while electricity provides 24 percent.

In 2008, the industry's energy use amounted to 37 percent of Canada's total final consumption.

FIGURE 1: The Canadian manufacturing industry's final energy consumption (2010). *Source IEA*



National targets

The Canadian Government aims to reduce its GHG emissions by 17 percent (from the 2005 baseline) by 2020.

While energy efficiency is a cornerstone of Canada's energy policies, there are no federal mandated energy-savings targets or GHG mitigation goals for industry. Energy efficiency efforts are voluntary and provinces play a key role in their success. Industry has made considerable progress in advancing energy efficiency and improving energy-use performance while also reducing GHG emissions.

The government intends to regulate GHG emissions using standards that specify industrial facility performance. However, no specific emission standards have yet been established for industry, other than for the thermal power generation sector.

Policy structure

The Canadian Government has had various programs and instruments in place for industry for many years, including regulatory measures, financial incentives and voluntary initiatives. It also provides industry with leadership and information, and access to research, development and demonstration.

While federal policies include minimum energy performance standards, all other programs are voluntary in nature. Provincial governments tend to instead lead the way with mandatory policies, and they foster active and productive partnerships with participating industries, often in conjunction with utilities. Other measures include mechanisms to enable the successful adoption of voluntary programs by industry, and technical and financial assistance, with the latter being continuously adapted to match market circumstances as well as policy priorities.

Policy types

The Institute for Industrial Productivity offers a framework for industrial energy efficiency policy packages. The pyramid below goes beyond just listing policies and instead illustrates a layered analysis according to a “policy pyramid”, which connects various policies, measures and implementation tools.

IIP POLICY PYRAMID



Effort-defining policies

Launched in 1975, the Canadian Industry Program for Energy Conservation (CIPEC) remains Canada's primary federal effort-defining policy. It is a voluntary partnership between private industry and the federal government that aims to promote and improve Canada's industrial energy efficiency and reduce GHG emissions. Under the program, industry is able to establish voluntary, sector-level energy efficiency targets and develop action plans to achieve them. Members share information and identify common needs and best practices. Between 1990 and 2009, CIPEC members reduced their combined energy intensity by 4.9 percent, resulting in GHG reductions of 26.9 Mt.

The Energy Efficiency Standards and Labelling Program – under the leadership of Natural Resources Canada (NRCan) – delivers and enforces the Energy Efficiency Regulations for Minimum Energy Performance Standards (MEPS) and Product Labelling. While the majority of the energy-using products covered under the regulations are most commonly used in the residential and commercial/institutional building sectors, a number of products are common to industrial facilities – e.g. electric motors, dry-type transformers, and gas and oil-fired boilers.

Provincial programs¹ are also very active in driving energy efficiency performance. One example of a successful and innovative energy efficiency program is Efficiency New Brunswick, a voluntary industrial program that facilitates the identification, development, implementation and measurement of capital investments in energy efficiency projects. This program is targeted towards the largest companies in the province.

¹ While provincial programs are not within the primary scope of the IIP Industrial Efficiency Policy Database, several provincial programs that were particularly successful have been profiled.

It aims to improve competitiveness, productivity and environmental performance through the implementation of both capital and operating energy efficiency improvements.

Supporting measures

At the federal level, the degree to which financial assistance for energy efficiency is provided to industry varies according to policy priorities and market circumstances. NRCan developed the ecoENERGY Efficiency for Industry program to provide industrial companies with financial support for ISO 50001 implementation pilots and other energy-related assessments. NRCan also provides funding for the research, development and demonstration of new and emerging clean energy science and technology, and offers several platforms for industry to receive technical and financial support.

Since 1994, the government has used accelerated capital cost allowances (ACCA) as a tax instrument to foster industry investment in energy efficiency and clean energy solutions. ACCAs effectively reduce the typical depreciation period of an energy efficiency-related capital investment made by a company.

As with effort-defining policies, provincial supporting programs have been successful in facilitating energy efficiency improvements. For example, utility energy efficiency obligation schemes in British Columbia and Ontario have facilitated the implementation of energy-saving measures in industry. Since 1989, British Columbia (BC) Hydro – the third-largest utility in Canada – has delivered a wide range of demand-side management (DSM) programs to industry in the province under the auspices of the “Power Smart” brand. For large industrial customers, this includes a mandatory two-tier rate to encourage energy conservation and efficiency as well as incremental customer self-generation. BC Hydro also offers a variety of co-funding to identify and prioritize energy efficiency opportunities.

Implementation toolbox

Canada has a comprehensive and robust range of tools available to industry through its federal and provincial programs. Industry has access to technical support, energy management system guidance material and capacity-building resources that can help them successfully implement their various voluntary programs.

This factsheet is based on data from IIP as well as other sources. For more information about industrial energy efficiency and GHG policies in Canada, and a full list of references, please visit the IIP Industrial Efficiency Policy Database: www.iipnetwork.org/databases/policy