



# **Encouraging Market Transformation Through Collaboration on Energy Efficiency Standards:**

A Federal-Provincial-Territorial Framework

**Energy and Mines Ministers' Conference**

Winnipeg, Manitoba  
August 2016



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*Aussi Disponible en français sous le titre : Favoriser la transformation du marché grâce à une collaboration en matière des normes d'efficacité énergétique – Cadre fédéral-provincial-territorial*

Cat. No. M4-121/2016E-PDF (Online)

ISBN 978-0-660-05818-4

## INTRODUCTION

Energy efficiency standards for consumer and commercial products are among the most cost-effective approaches to improving energy efficiency and reducing greenhouse gas emissions. They are used globally by almost 50 countries as a foundation to energy conservation and national climate change policies. These standards eliminate the least efficient products from the market when more efficient technologies are cost-effective and readily available. Through cycles of continuous improvement, energy efficiency standards drive product innovation, transforming the market toward higher performing products that use less energy, generate fewer greenhouse gas emissions and cost less to operate.

Federal, provincial and territorial governments have important roles to play in setting energy efficiency standards. Provinces can regulate energy efficiency standards for products sold within their borders. The federal government has the authority to set standards for products that are imported or shipped interprovincially for the purposes of lease or sale. The federal government is also responsible for bilateral cooperation with the United States. In March 2016, President Obama and Prime Minister Trudeau pledged to advance regulatory cooperation and better align and further improve energy efficiency standards by 2020.

When federal, provincial and territorial governments are not coordinated, it may lead to duplicative requirements for industry to serve the national market. For example, when conformity procedures differ across jurisdictions, manufacturers may have to test an identical product more than once to sell it across Canada. This can lead to unnecessary costs, reduce the product choices available in the market, and create barriers to internal trade between provinces.

Coordinated action among governments<sup>1</sup> supports national consistency for energy efficiency standards. By working together, federal, provincial and territorial governments can achieve their climate change and energy efficiency goals in a way that avoids unnecessary burden. Governments can also maximize the impact of their actions by complementing efforts, achieving greater and more cost-effective energy savings and greenhouse gas emissions reductions than they could alone.

This framework supports the Vancouver Declaration, where First Ministers agreed to develop a Pan-Canadian Framework on Clean Growth and Climate Change, including harmonization on energy efficiency standards across Canada and with North American partners. It also supports the commitment made by the Council of the Federation in the *Canadian Energy Strategy* to evaluate opportunities to implement and expand minimum energy performance policies as a means to drive the uptake of energy efficiency improvements.

## PURPOSE

The purpose of this framework is to define how federal, provincial and territorial governments can collaborate to achieve greater harmonization on energy efficiency standards. The framework outlines:

- 1) A set of common goals that energy efficiency standards support;
- 2) The principles that define an effective and coordinated regulatory system and guide the development of joint priorities; and
- 3) The way forward to implement the framework.

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<sup>1</sup> The generic use of the word “governments” in this document refers to federal, provincial and territorial governments.

### Vision

*A future where federal, provincial and territorial governments define joint priorities for energy efficiency standards and engage in coordinated activities on standards to drive greater, more cost-effective actions to reduce greenhouse gas emissions and promote energy conservation.*

## GOALS

Federal, provincial and territorial governments use energy efficiency standards to achieve the following goals:

### Goal 1: Reduce greenhouse gas emissions and enable transition to a low-carbon economy

The Government of Canada committed to reducing greenhouse gas emissions by 30% by 2030, from a 2005 baseline. The federal government also committed to support innovation and the use of clean technologies, which will play a critical role in Canada's transformation to a low-carbon economy.<sup>2</sup> Many provinces and territories have their own greenhouse gas emission reduction targets, reflecting their commitments to climate change mitigation.

Consumer and commercial products used in Canadian homes and buildings are significant contributors to national greenhouse gas emissions. In 2013, greenhouse gas emissions in the residential and commercial/institutional sector were 121 megatonnes, representing 17% of Canadian emissions.<sup>3</sup> Emissions in this sector are expected to increase by 15% by 2030 in the absence of further actions.<sup>4</sup>

### Goal 2: Reduce energy costs for consumers and businesses

Canadians spend almost \$50 billion each year to power homes and commercial buildings.<sup>5</sup> Much of this energy is wasted – 30% or more on average.<sup>6</sup> If the energy use of homes and commercial buildings was cut by 20%, Canadians could save approximately \$10 billion annually on energy bills.

Between 2005 and 2015 real electricity prices in the residential and commercial sectors grew by 20% nationally.<sup>7</sup> By 2040 the National Energy Board projects that electricity prices will grow by a further 14% to 19%, while natural gas costs will rise by 17% to 22% in the same time frame.<sup>8</sup> These changes could result in significant increases in energy costs for consumers and businesses in the absence of energy efficiency improvements.

<sup>2</sup> Budget 2016 – Budget Plan: Growing the Middle Class, March 2016, p. 150.

<sup>3</sup> Business as Usual projection, Environment and Climate Change Canada

<sup>4</sup> Ibid.

<sup>5</sup> Energy Efficiency Trends, 2013 data, 28.5 billion for residential homes and \$20.6 billion for business owners and institutions.

<sup>6</sup> Based on estimates from the United States Department of Energy and Lawrence Berkeley Laboratories [flowcharts.llnl.gov/content/assets/images/energy/us/Energy\\_US\\_2014.png](http://flowcharts.llnl.gov/content/assets/images/energy/us/Energy_US_2014.png).

<sup>7</sup> Source: Canada's Energy Future 2016: Energy Supply and Demand Projections to 2040, National Energy Board's Reference Case.

<sup>8</sup> Source: Canada's Energy Future 2016: Energy Supply and Demand Projections to 2040, National Energy Board's Reference Case.

### Goal 3: Support provincial and territorial energy and capacity savings targets

Numerous provinces and territories have mandated energy or capacity savings targets. For example, the Province of Ontario has a long-term conservation target of 30 terawatt-hours in 2032, and the Province of British Columbia has a requirement that BC Hydro meet 66% of new demand through demand-side measures by 2020.

Even with an abundant supply of energy in Canada, some provincial and territorial regulators and utilities face challenges in maintaining a reliable, uninterrupted supply of electricity. These challenges include the management of peak demand, supply security, and the costs of developing new generation. As the demand for electricity grows—and without measures to encourage conservation—consumers may face higher prices, lost opportunities for exports, and reliability issues during peak demand.

#### *Energy efficiency standards are critical to achieve these goals*

*Energy efficiency standards reduce greenhouse gas emissions, mitigate the impact of energy price increases and help meet energy and capacity savings targets by lowering the amount of energy consumed by a product through technology upgrades, improved design and advanced features.*

## PRINCIPLES

The principles described here are the foundation of the framework. They define how federal, provincial and territorial governments can work together to create an effective and coordinated regulatory system and develop joint priorities for collaboration.

### Governments working together

#### *Consistent*

Governments will maximize national consistency in energy efficiency standards, while recognizing provincial, territorial and regional priorities. When balancing these considerations, governments will design regulatory requirements to minimize unnecessary burden on industry.

#### *Cohherent*

Collaborative government action will be based on common outcomes and informed by joint priorities. To the extent possible, activities will be complementary instead of duplicative, maximizing the levers and tools in each jurisdiction, while recognizing the different enabling authorities, markets and climactic conditions that exist across Canada.

#### *Beneficial*

Governments will assess the economic and environmental impacts of proposed standards to understand the potential impacts on consumers and business and ensure that Canadians benefit from their implementation.

#### *Transparent*

Governments will be open and transparent with stakeholders in future planning and will share information regularly among governments and with interested parties. Governments will consult with stakeholders in the development of new priorities.

## Governments defining joint priorities

### *Strategic*

Governments will prioritize their collaboration in areas where:

- They can more effectively achieve the framework goals through joint action than through unilateral action;
- There are unique Canadian circumstances that necessitate a national approach; or
- A patchwork of energy efficiency standards exists across Canada that can be harmonized.

Collaboration will be informed by alignment activities under the Canada-United States Regulatory Cooperation Council.

### *Forward looking*

Governments will prepare the market for future regulation by making coordinated, upfront investments to address barriers to the full market adoption of high-efficiency technologies. Governments will prioritize product technologies that have the greatest energy savings or greenhouse gas emissions reduction potential and that face one or more of the following barriers:

- Lack of availability of the technology in the market;
- Low awareness about the technology in the market;
- Lack of regional access;
- High upfront capital or installation costs; and
- Low consumer acceptance.

### *Continuously improving*

Governments will continuously assess opportunities for improvements in the regulatory system to streamline processes, remove barriers to collaboration or improve regulatory design.

## GOVERNANCE MECHANISMS

Progress in implementing the framework will be reported annually to the Energy and Mines Ministers' Conference.

## WAY FORWARD

Active engagement from federal, provincial and territorial governments will be required to achieve the goals outlined in this framework. The following four work streams flow from the principles outlined in this framework and form an Action Plan (Annex 1), which will be updated annually. Future Action Plans will be informed by the outcome of federal, provincial and territorial discussions under the Pan-Canadian Framework on Clean Growth and Climate Change and activities under the *Canadian Energy Strategy* for energy efficiency standards.

The four work streams are:

### **1. Establishing joint priorities for new and updated energy efficiency standards**

Product categories in which federal, provincial and territorial governments will coordinate activities to implement nationally consistent, new and updated energy efficiency standards



**2. Establishing joint priorities to prepare the market for future regulations**

Product categories in which coordinated activities are required to overcome the remaining barriers to full market adoption and to facilitate future regulation

**3. Establishing joint priorities for improved regulatory development and implementation**

Areas where regulatory development and implementation can be improved, including labelling, compliance, reporting and the National Standards System

**4. Ensuring transparency in forward regulatory plans**

Making forward regulatory plans publicly available to highlight proposed actions by federal, provincial and territorial governments

## **CONCLUSION**

Federal, provincial and territorial governments recognize the importance of collaborating on energy efficiency standards to achieve climate change and energy efficiency goals in a coherent and consistent manner. This framework provides the structure and a way forward to achieving greater harmonization and coordination, and to setting joint priorities.

## Annex 1: A Federal-Provincial-Territorial Action Plan

This Action Plan includes only planned activities among federal, provincial and territorial governments (governments) to be completed by mid-2017. The Action Plan will be updated annually.

Work stream 1: Joint priorities for new and updated energy efficiency standards		
<p><b>Rationale:</b> Space and water heating account for 70% to 85% of energy use in Canadian homes and buildings. The balance of energy use results primarily from appliances and lighting. New and updated energy efficiency standards for technologies that are major contributors to residential and commercial energy use can make a significant contribution to reducing greenhouse gas emissions, energy use and costs.</p>		
Planned activities		
1	<p>The following product categories are included in federal forward regulatory plans. Heating products are an area where, for climatic reasons, Canada's standards have exceeded those in the United States in stringency. Governments will work together with industry to assess costs and benefits of higher energy efficiency standards for these products:</p> <ul style="list-style-type: none"> <li>• Residential gas boilers</li> <li>• Residential oil boilers</li> <li>• Gas fireplaces</li> <li>• Commercial gas boilers</li> <li>• Commercial oil boilers</li> <li>• Commercial gas furnaces</li> <li>• Commercial gas-fired storage water heaters</li> <li>• Tankless water heaters</li> <li>• Pool heaters</li> </ul>	<p><b>Deliverables:</b></p> <p>Collect market information: Fall/Winter 2016–2017</p> <p>Pre-consult with stakeholders on proposed standards: Spring 2017</p>
2	<p>The following product categories are not included in federal forward regulatory plans but may present significant opportunities for reducing energy use. For these products, governments will assess the feasibility and benefits of energy efficiency standards at ENERGY STAR® levels in Canada:</p> <ul style="list-style-type: none"> <li>• Heat recovery ventilators</li> <li>• Residential gas furnaces</li> <li>• Residential gas storage water heaters</li> </ul>	<p><b>Deliverables:</b></p> <p>Collect market information: spring 2017</p> <p>Discussions with stakeholders on outcomes of market analysis: 2017</p>

3	<p>Many additional product categories are regulated or under consideration for regulation by at least one Canadian province, but not at the federal level in Canada or in the United States. Governments will assess these product categories to determine how to best bring consistency to energy efficiency standards. Examples include, but are not limited to, the following:</p> <ul style="list-style-type: none"> <li>• Windows</li> <li>• Line voltage thermostats</li> <li>• Large battery charging systems</li> <li>• Roadway lighting</li> </ul>	<p><b>Deliverables:</b></p> <p>Inventory and prioritize product categories: Spring/Summer 2017</p>
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Work stream 2: Joint priorities to prepare the market for future regulations		
<p><b>Rationale:</b> There are several product categories for which existing or new high-efficiency technologies could generate further energy savings and greenhouse gas emissions reductions; however, barriers remain to their full market adoption. For some of these product categories, national test standards do not yet exist. For others, high upfront costs, technical challenges or lack of know-how prevent technology uptake by consumers and businesses. These barriers are unlikely to be overcome without government action.</p>		
Planned activities		
1	<p>Governments will develop joint strategies for the following product categories that identify the key market barriers, the actions required to overcome those barriers and the role of each government:</p> <ul style="list-style-type: none"> <li>• High performance windows</li> <li>• Higher efficiency water heaters (all fuel types)</li> <li>• Network-connected devices</li> <li>• Heat pumps (cold climate air source heat pumps)</li> <li>• Lighting</li> </ul>	<p><b>Deliverables:</b></p> <p>Prioritize technologies / strategies; develop timetables and stakeholder engagement plans: Winter 2017</p>

### Work stream 3: Joint priorities for improved regulatory development and implementation

**Rationale:** A sustainable, cost-effective and relevant National Standards System is required to support Canadian regulations for all levels of government. The National Standards System ensures that all stakeholders, including the public, are engaged in the development of standards for energy efficiency. To improve regulatory implementation, the National Standards System needs to be nimble in supporting government objectives to maximize national consistency of energy efficiency requirements as well as alignment with the United States.

Planned activities		
1	<p>Governments will work with the Canadian Standards Association, other standards development organizations (as applicable), and the Standards Council of Canada in developing a streamlined approach for standards development, covering standards that:</p> <ul style="list-style-type: none"> <li>• Align with the United States</li> <li>• Align with the United States with unique Canadian requirements</li> <li>• Are unique to Canada</li> </ul>	<p><b>Deliverables:</b></p> <p>Implementation of a “fast track” approach at the Canadian Standards Association for improved alignment with the United States: Summer/Fall 2016</p>

### Work stream 4: Transparency in forward regulatory plans

**Rationale:** To maximize transparency for stakeholders, it is necessary to share information on proposed regulatory activities and have that information be easily accessible. Governments typically make regulatory plans public, but they are not found easily in one place.

Planned activities		
1	<p>Governments will develop a web portal with links to all current regulations and regulatory plans for federal, provincial and territorial governments, as applicable.</p>	<p><b>Deliverables:</b></p> <p>Web portal launched: Winter 2017</p>