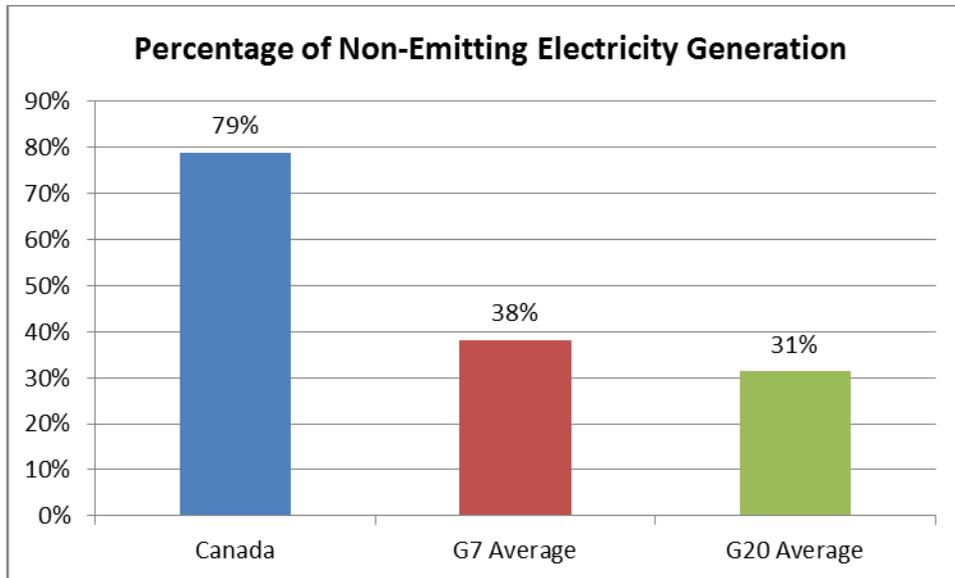


CANADA'S INDC SUBMISSION TO THE UNFCCC

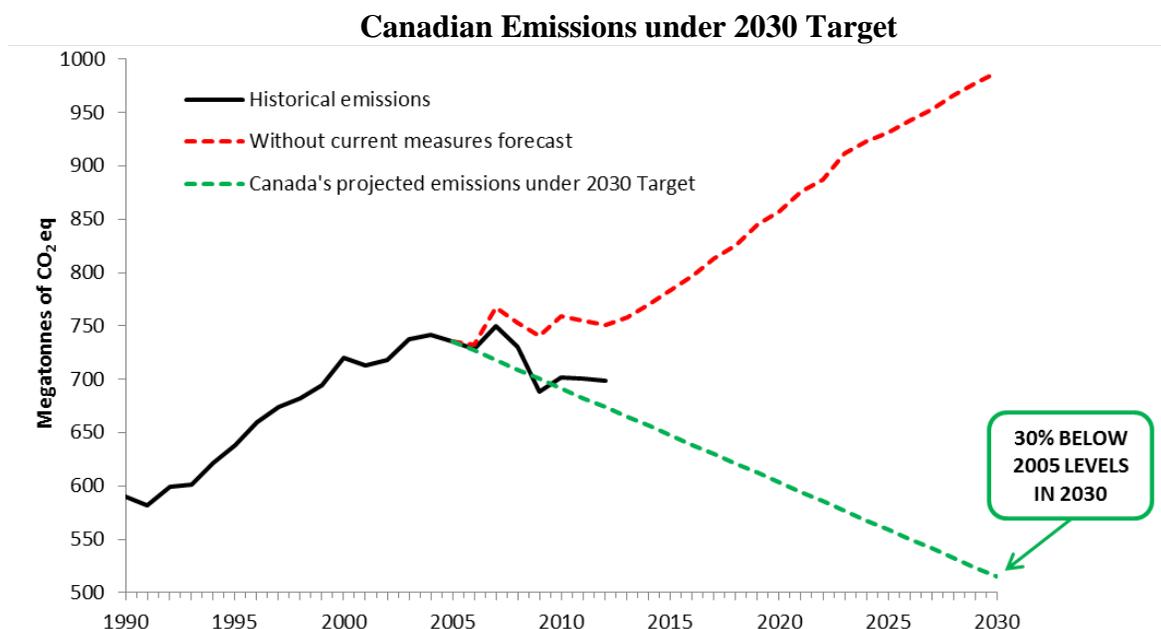
Canada is pleased to communicate our intended nationally determined contribution, as well as information to facilitate the clarity, transparency, and understanding of the contribution.

As a vast Northern nation, Canada faces unique challenges in addressing climate change: a growing population, extreme temperatures, a large landmass, and a diversified growing economy with significant natural resources are some of the circumstances influencing Canadian greenhouse gas emissions. Despite these challenges, Canada has one of the cleanest electricity systems among G-7 and G-20 nations and one of the cleanest in the world, with almost 80% of our electricity supply already emitting no greenhouse gases. Since 2011, Canada's per capita greenhouse gas emissions have been at their lowest levels since tracking began in 1990 while the economy has continued to grow.



Although Canada represents only 1.6% of the world's greenhouse gas emissions, Canada remains committed to doing our part to address climate change. As part of our contribution to a new global climate change agreement, Canada intends to achieve an economy-wide target to reduce our greenhouse gas emissions by 30% below 2005 levels by 2030.

This target is ambitious but achievable. It represents a substantial reduction from Canada's business-as-usual emissions. Canada has already undertaken decisive actions domestically to reduce our emissions, and is committed to doing more in concert with all major emitters. Reaching this ambitious target will require new policies in additional sectors and coordinated continental action in integrated sectors. Canada may also use international mechanisms to achieve the target, subject to robust systems that deliver real and verified emissions reductions.



Canada is making progress in reducing our emissions – from 2005 to 2013, Canadian greenhouse gas emissions decreased by 3.1% while the economy grew by 12.9%. The Government of Canada is implementing a responsible sector-by-sector regulatory approach to reduce emissions, aligned with Canada's major economic partners, like the United States, recognizing the importance of cooperative action in an integrated North American marketplace. Through this approach Canada has already taken steps to reduce emissions from two of the largest emitting sectors of the Canadian economy – transportation and electricity.

Building on the strong base of clean electricity generation, Canada has established stringent coal-fired electricity standards that ban the construction of traditional coal-fired electricity generation units, and will accelerate the phase-out of existing coal-fired electricity generation units. Canada has also taken action in the transportation sector, which is responsible for approximately 25% of Canada's emissions, by working closely with the United States towards common North American greenhouse gas standards for vehicles. The Government of Canada has put in place progressively more stringent greenhouse gas emission standards for passenger automobiles and light trucks as well as regulations for heavy-duty vehicles. As a result of these regulations, greenhouse gas emissions from new passenger vehicles, light trucks and heavy-duty vehicles are steadily declining. For example, 2025 model year passenger vehicles and light trucks will emit about half as many greenhouse gases as 2008 models.

Canada is continuing to develop and implement measures to reduce emissions from other key greenhouse gas sources. For example, in December 2014 the Government of Canada announced our intent to regulate hydrofluorocarbons (HFCs), the fastest growing greenhouse gases globally. Canada intends to develop regulations to address methane emissions from the oil and gas sector, as well as greenhouse gas emissions from natural gas fired electricity, chemicals and nitrogen fertilizers through our responsible sector-by-sector regulatory approach that ensures Canada's economic competitiveness is protected. Canada will continue to take cooperative action with our continental trading partners, particularly the United States, and will work towards further action in integrated sectors of the economy, including energy and transportation.

Canada's regulatory approach is coupled with significant investments in clean energy technologies in order to drive a steady transition to a low carbon economy. Since 2006, the Government of Canada has invested more than \$10 billion in green infrastructure, energy efficiency, clean energy technologies, cleaner fuels and smarter grids. Examples include:

- Investments towards the development and demonstration of clean technology products such as electrical vehicle charging stations and wind hybrid power plants.
- Investments to encourage the generation of electricity from renewable energy sources such as wind, low-impact hydro, biomass, photovoltaic and geothermal energy.

Canada is a leader in clean energy technologies, and has made multiple investments in such technologies to promote further innovation. Examples include the world's first large scale power sector carbon capture and storage project in Saskatchewan, as well as the first carbon capture and storage project at an oil sands operation. As a result, Canada is making meaningful progress to limit and reduce greenhouse gas emissions in key sectors. For example, emerging technologies and federal regulatory action has limited emissions in the transportation sector, despite growth in vehicle fleets while emissions are falling in the electricity sector due to coal phase out, switching to natural gas and growth in non-emitting generation. To build on this success, Canada will focus climate-related investments in innovative production technologies to continue to drive further improvements in environmental performance in the oil sands and other growing sectors.

In Canada, climate change is a shared responsibility that requires action from all levels of government. Canadian provinces and territories have jurisdictional authorities over the fields of natural resources, energy, and many aspects of the environment. Each has its own legal framework, policies and measures in place to reduce greenhouse gas emissions. The Canadian Council of Ministers of the Environment, a federal/provincial/territorial intergovernmental forum, has agreed that climate change will be on its agenda on an ongoing basis.

Canada believes that every country must do its part to address climate change. Canada will work with international partners to advance collective efforts. Canada's aim is a durable and inclusive global agreement that will put in place a long-term framework for collaborative action. With this contribution Canada is affirming our continued commitment to developing an international

climate change agreement that is fair, effective and includes meaningful and transparent commitments from all major emitters.

Intended Nationally Determined Contribution

Canada intends to achieve an economy-wide target to reduce its greenhouse gas emissions by 30% below 2005 levels by 2030.

Clarifying Information

Base year	2005
End year	2030
Type	Absolute reduction from base-year emissions
Coverage	Economy wide – 100% of Canadian GHG inventory
Gases covered	<ul style="list-style-type: none"> ○ carbon dioxide (CO₂) ○ methane (CH₄) ○ nitrous oxide (N₂O) ○ sulphur hexafluoride (SF₆) ○ perfluorocarbons (PFCs) ○ hydrofluorocarbons (HFCs) ○ nitrogen trifluoride (NF₃)
Sectors	All IPCC sectors
Implementation	<p>The Government of Canada has in place legislative instruments to address climate change. The federal government’s primary statute is the <i>Canadian Environmental Protection Act, 1999</i>, which includes authorities to regulate GHG emissions. Emissions reductions can also be achieved through policy actions.</p> <p>Since 2006, the federal government has taken the following regulatory action under its responsible sector-by-sector regulatory approach:</p> <ul style="list-style-type: none"> • transportation sector regulations establish progressively more stringent GHG emission standards for heavy-duty vehicles (model years 2014-2018) and for passenger automobiles and light trucks (2011-2025) • electricity sector regulations make Canada the first major coal user to ban the construction of traditional coal-fired electricity generating units. These regulations will also lead to the phase-out of existing coal-fired electricity units without carbon capture and storage; • renewable fuels regulations require that gasoline contain an average 5% renewable fuel content and that most diesel fuel contain an average 2% content. <p>The federal government is also taking action to address transportation emissions from the rail, marine, and aviation subsectors.</p> <p>The federal government is currently developing additional regulatory measures that will:</p> <ul style="list-style-type: none"> • establish more stringent standards in the transportation sector for heavy-duty vehicles of post-2018 model years; • gradually phase down HFCs, which will limit potent GHG emissions that are expected to increase substantially in the next 10 to 15 years; • reduce GHG emissions from natural gas-fired electricity, as well as from chemicals and nitrogen fertilizers; • reduce methane emissions from the oil and gas sector. <p>Canada’s regulatory approach is aligned with that of the United States, where appropriate, recognizing the importance of cooperative action in an integrated North American marketplace. Canada will continue take</p>

	<p>cooperative action with its continental trading partners, particularly the United States, and will work towards further action in integrated sectors of the economy, including energy and transportation.</p> <p>Canadian provinces and territories have significant authorities over the fields of natural resources, energy, and the environment. Each has its own legal framework and each has its own policies and measures that will reduce greenhouse gas emissions. Mechanisms exist for the federal government to engage with Canadian provinces and territories, as well as other key partners and stakeholders, on climate change. In particular, the Canadian Council of Ministers of the Environment, a minister-led intergovernmental forum, will be addressing climate change on an ongoing basis.</p>
Key assumptions	
Metric applied	100-year Global Warming Potential values from the IPCC Fourth Assessment Report
Methodologies for estimating emissions	IPCC Guidelines 2006
Approach to accounting for agriculture, forestry, and other land uses	Canada intends to account for the land sector using a net-net approach, and to use a “production approach” to account for harvested wood products. Canada will exclude emissions from natural disturbances.
Contribution of international mechanisms	Canada may use international mechanisms to achieve its 2030 target, subject to robust systems that deliver real and verified emissions reductions.