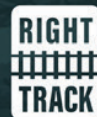




CANADA'S RAILWAYS

Helping Canada Stay on Track to Fight Climate Change

**People. Goods.
Canada moves by rail.**



Railway Association
of Canada

CANADA'S RAILWAYS

Helping Canada Stay on Track to Fight Climate Change

Canada's railways are key to addressing climate change—they are the most environmentally sound way to move freight and people over land.

Transportation is Canada's second-largest source of greenhouse gas (GHG) emissions. For Canada to achieve the Paris Agreement goal of limiting the increase in global average temperature to well below 2°C, the transport sector must make a major contribution. But transportation is one of the few sectors where GHGs are still rising.

Growing emissions from commercial traffic pose a serious challenge

The Government of Canada's Second Biennial Report on Climate Change projects that emissions from moving freight across Canada will eclipse passenger emissions around 2030. If Canada is to live up to its Paris commitments, the freight industry will have to do more to reduce emissions.

The environmental performance of rail is unmatched

Greenhouse gas emissions from the railway industry represent just one percent of Canada's total GHG emissions. Yet rail completes more than 84 million passenger trips and moves close to 70 percent of Canadian intercity freight each year.

The transport sector can play a vital role in achieving the 2030 Agenda and its Sustainable Development Goals. I count on the commitment of the global railway community to make transport more sustainable—and your gathering is especially timely coming within weeks of the entry into force of the Paris Agreement on Climate Change.

—Ban Ki-moon, Secretary-General of the United Nations 2007–2016,
statement to the 2016 International Union of Railways 2016
Sustainability Conference



Government support for railways can help Canadians fight climate change

Governments should recognize the important role that railways can play in reducing Canada's GHG emissions. When governments support railways, they are taking concrete action in the fight against climate change for the benefit of all Canadians.

By incentivizing a shift from other transportation modes to rail, Canadians will enjoy improved access to a greener inter-city shipping and transit options. Through strategic investments in railway infrastructure, Canadians will benefit from the lower emissions produced by moving freight by rail.

In 2016, the Pan Canadian Framework for Clean Growth and Climate Change, from the Government of Canada, eight provinces and three territories, stated that shifting from higher- to lower-emitting modes of transportation includes things like riding public transit or cycling instead of driving a car, and transporting goods by rail instead of trucks.

1%

Railroads are responsible for only one percent of Canada's overall greenhouse gas emissions

40%↓

Canada's freight railways have reduced their greenhouse gas emissions intensity by more than 40 percent since 1990

55%↓

Canada's inter-city passenger railways have reduced their greenhouse gas intensity by approximately 55% since 1990

The rail advantage

A single freight train can remove more than 300 trucks from Canada's roads. Think about that the next time you're stuck in highway traffic burning fuel unnecessarily. Opting for rail over trucks also means less stress on our roads and less money needed for expensive road building and repairs.

Freight railways are fuel efficient

Rail can move one tonne of freight 215 kilometers on a single litre of fuel. Not only are trains almost four times more fuel efficient than trucks, they produce 75 percent fewer GHGs. Shifting just 10 percent of freight from trucks to rail would reduce GHG emissions by close to 3.7 megatonnes of CO₂ equivalent.

Via Rail moves millions of passengers while reducing emissions

VIA Rail moves millions of passengers every year across Canada, helping to alleviate congestion in and out of cities and reducing transport emissions—passenger trains are three times more fuel-efficient than the average car. Since 2005, VIA Rail has reduced GHG emissions by 34 percent per passenger-kilometre. Today, travelling by rail from Toronto-Montreal emits roughly 5.5 times less CO₂ than flying.

261,357

tonnes of CO₂-e of carbon avoided by VIA Rail trains in 2017 when compared with car travel



VIA Rail recently awarded a contract to Siemens Canada to build train sets for VIA Rail's new fleet that will be among the most fuel-efficient diesel-electric locomotives in the world today.

Building an electrified high-frequency rail system for the Windsor-Quebec City corridor would be equivalent to taking 3.1 million cars off Canada's roads for a full year. It would also reduce inter-city car trips by 11 percent, which translates to 13.9 million tonnes of carbon dioxide equivalent reduction in carbon emissions by 2050.

Ottawa's new light-rail system part of a national wave

In southern Ontario, by 2025, there are plans to run electrified trains every 15 minutes or better, all day within the most heavily travelled sections of the GO network. Electrifying the entire network would deliver a 94 percent reduction in GO Transit's future GHG emissions.

One of Canada's newest light-rail systems opened in Ottawa in September 2019. The system is projected to reduce emissions of carbon dioxide, the major greenhouse gas, by about 94,000 tonnes in 2031. The City of Ottawa estimates the monetary value of this, together with other environmental benefits like reducing particulate matter and other forms of air pollution, is worth \$36 million per year.

These benefits come from two sources. First, replacing diesel buses with electric trains means emissions from transit vehicles themselves are reduced. Ottawa forecasts saving 10 million litres of diesel fuel a year, which in turn means lower emissions. Second, turning car drivers into light-rail riders results in substantial reductions in greenhouse gas emissions per vehicle kilometre.

Ottawa is not alone. Rail projects in Edmonton and Toronto, along with a rail line from Quebec City to Montreal, all made the Canadian Urban Transit Association's "6 Top Transit Projects for 2018" list and hold the promise of reduced transportation emissions in the future.



Photos provided by the City of Ottawa

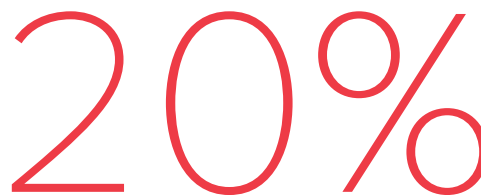
Canadian railways are investing for a climate-friendly future

Members of the Railway Association of Canada invested a record \$4.6 billion across their networks in 2019. A substantial portion of this investment went towards innovative solutions—like locomotives that consume less fuel and emit fewer greenhouse gas emissions—to improve every aspect of the railway business.

Canada's railways will continue to innovate and implement new technologies as they become available, so they can remain a productive and sustainable player in the Canadian economy.

A successful track record

Despite rising ridership and increasing demand, railways continue to achieve emissions reductions. Since 1990, freight railways have reduced their GHG intensity by more than 40 percent while experiencing an 80 percent increase in workload. Intercity passenger railway emissions intensities have decreased by 55 percent, while ridership has increased by 2 percent.



Railways invest about 20 percent of their revenues into their infrastructure every year to increase efficiency and sustainability

What can governments do?

As a key component of a multi-modal transportation supply chain, railways play a pivotal role in facilitating economic development and trade opportunities for more than 10,000 customers. Each year, more than 50 freight railways provide an efficient, safe and emission-friendly mode of transportation that moves about \$310-billion worth of Canadian goods and roughly 50 percent of the country's goods destined for export. Comparatively, passenger and commuter railways continue to invest and grow their market share each year.

Governments across the country can help reduce GHG emissions by supporting opportunities for modal shift to rail. Programs funded thanks to the revenues from carbon pricing mechanisms should be used to help shippers gain access to the rail network. For example, the PREGTI program adopted in Quebec.

Government funding should also be directed towards better understanding the impact of higher blends of renewable fuels in locomotive diesel to help railways maintain the fuel efficiency gains made over the last three decades.

About the Railway Association of Canada

The Railway Association of Canada represents close to 60 freight and passenger railway companies. RAC also counts a growing number of industrial railways and railway supply companies in its associate membership. As part of the fifth largest rail network in the world, RAC members are the backbone of Canada's transportation system.

Visit railcan.ca to learn more about Canada's railways and their central role in fighting climate change.



www.railcan.ca