“Sustainable freight transport in support of the 2030 Agenda for Sustainable Development”

Natural Resources Canada: Enabling sustainable freight transportation

by

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Outline

Transportation in Canada
Pan-Canadian Framework on Clean Growth and Climate Change
Natural Resources Canada
Greening On-Road Freight
Moving Forward
Transportation in Canada

The transportation sector accounts for approximately 25% of Canada’s emissions, mostly from passenger vehicles and freight trucks.

- Transportation: 25%
- Light Duty Truck: 27%
- On-Road Freight: 37%
- Oil and Gas: 26%
- Agriculture: 10%
- Heavy Industry: 11%
- Electricity: 6%
- Buildings: 12%
- Waste and Others: 11%
- Other: 15%
- Passenger Cars: 21%
- Waste and Others: 11%

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On-Road Transportation in Canada

Freight transportation energy use by mode - 1990 and 2015

- Light Trucks: 105% increase
- Medium Trucks: 15% increase
- Heavy Trucks: 95% increase
- Air: 8% increase
- Rail: 15% decrease
- Marine: 15% decrease

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Transportation in Canada

- Canada has made international efforts to reduce emissions from on-road transportation:
  - Climate & Clean Air Coalition Global Green Freight Action Plan
  - G20 2014 Energy Efficiency Action Plan
  - Commission for Environmental Cooperation
  - Clean Energy Ministerial Electric Vehicles Initiative
  - North American Leaders' Summit

- Domestic actions are outlined in the Pan-Canadian Framework on Clean Growth and Climate Change and the Canadian Energy Strategy.

Pan-Canadian Framework on Clean Growth and Climate Change

The Framework is the Government of Canada's plan – developed with the provinces and territories and in consultation with Indigenous peoples – to meet Canada's emissions reduction target and grow the economy.

The Framework includes a transportation strategy organized in four themes:

1. Setting and updating vehicle emissions standards and improving the efficiency of vehicles and transportation systems
2. Expanding the number of zero-emission vehicles on Canadian roads
3. Supporting the shift from higher to lower-emitting types of transportation, including through investing in infrastructure
4. Using cleaner fuels through the development of a clean fuel standard
Natural Resources Canada

- Natural Resources Canada (NRCan) is a department within the Federal Government mandated to promote the sustainable development and responsible use of Canada’s mineral, energy, and forestry resources.

- NRCan works to improve efficiency and promote lower carbon technologies in the transportation sector. It delivers policy development and programs in collaboration with private sector across the innovation spectrum:

  - Fundamental R&D to develop innovative technologies
  - Small scale development
  - Commercial scale development
  - Full market deployment

Transportation and Alternative Fuels

**Mandate:** Increase awareness, availability, and use of lower carbon transportation options through policy and program-related activities

**Key Activities:**

- Encouraging consumer behavioural change through social innovation (purchasing decisions and driving behaviours)
- Enhancing green freight programming (SmartWay, Driver Training, Green Freight Assessment Program, HDV Pathways Report)
- Deploying EV and Alternative Fuel Infrastructure on key infrastructure corridors and mapping tools
- Greening Government Fleet Operations (logging, right sizing, alternative fuels/technology choices, driver training)
- Supporting key policy development National Zero-Emission Vehicles Strategy and development of the new Clean Fuel Standard
- Fostering greater international leadership
Growing Need for Freight Data

LACK OF CARRIER/FLEET LEVEL ENERGY USE DATA AND INFORMATION

- Freight shippers are under more pressure to report on their carbon emissions
- More companies are implementing sustainability measures
- Growing consumer awareness results in a need for greener freight movement
- Data collection is a crucial element where companies can strategically invest

Low Carbon Pathway for On-Road Freight

Gather latest research on energy efficiency measures and GHG reductions for on-road freight

Build a business case for further investment and innovation in the sector

Disseminate proposed actions and best practices on energy efficiency measures for road freight to key stakeholders

Engage stakeholders in discussion and collaboration on solutions for moving goods more sustainably

Inform policy on proposed actions to accelerate transition to lower carbon transportation
NRCan’s Green Freight Programming

- SmartDriver for Highway Trucking
- SmartWay Canada
- Green Freight Assessment Program

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SmartDriver

- For 20 years NRCan has been educating fleets on the benefits of energy-efficient commercial equipment purchases, alternative fuel choices and business best practices

- The free driver training program helps truckers and trucking companies reduce fuel use, cut costs, increase profits and improve competitiveness

- Fuel-efficient driving techniques reduce fuel consumption and help Canada meet its climate change goals

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**TRAINING SUITES**

**SMARTDRIVER**
Driver training for industries, municipalities, school buses, delivery companies, transit and forestry

**FUEL MANAGEMENT 101**
Training for fleet managers who want to investigate fuel and emission reductions

**PRO-TRUCKER**
Driver training developed with and administered by provincial trucking associations and training schools

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**International Collaboration on Eco-Driving**

The success of our domestic green freight actions, along with increased global concern over air quality and climate change, has resulted in requests from several international governments seeking to collaborate on the development of green freight programming, including fuel efficient driver training master curriculum, tailored to the specific needs of their individual freight sectors.

**Brazil**
Initial training held in October 2017. Driver training curriculum has now been fully adapted for Brazil with a goal of training 50,000 drivers.

**Argentina**
Ongoing collaboration with Argentina to share our green freight expertise to customize our fuel efficient driver training program and share best practices.

**Jamaica**
In partnership with the United Nations worked with the All Island Trucking Association to adapt the driver training curriculum for use in Jamaica (Oct 2018).
Launched in Canada in 2012, the SmartWay Transport Partnership is a collaboration of private and public stakeholders designed to advance sustainability in the freight transportation sector.

SmartWay helps carriers and shippers benchmark their operations, track fuel consumption and improve their overall performance.

**SmartWay’s goal is to help Partners:**
- Save money
- Lower fuel use
- Reduce emissions

### SmartWay Canada Partners

- **441** SmartWay Canada Partners
- **45,000** Trucks Registered
- **170 Million** Litres of fuel saved in 17/18
- **4,000** Litres per class 8 truck
**SmartWay - A North American Partnership**

Given the integrated nature of the North American economy, NRCan worked with the U.S. EPA and the Government of Mexico to expand the SmartWay Program into Mexico.

The first step is a one year pilot project in 2018 with lessons learned used to assess a wider roll-out of the program across Mexico, and globally.

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**Green Freight Assessment Program**

- The Green Freight Assessment Program helps Canadian companies undergo a thorough review of their operations to identify opportunities for improvement.

- These assessments will look at the fleet portrait as a whole to identify behavioural and operational opportunities that may be available to optimize business operations.

- The resulting recommendations will help business owners and operators make informed decisions to ultimately reduce operating costs and increase profits while having a positive impact on the environment.
Thank you!