



# Energy Efficiency in Canada

## Government of Canada's Role in the Transportation Sector



Natural Resources  
Canada

Ressources naturelles  
Canada

Canada 



# Outline

- 1. Transportation Sector in Canada**
- 2. Government of Canada's Initiatives**
- 3. Departmental Roles for Transportation**
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  - ii. Transport Canada**
  - iii. Natural Resources Canada**





# Transportation Sector in Canada



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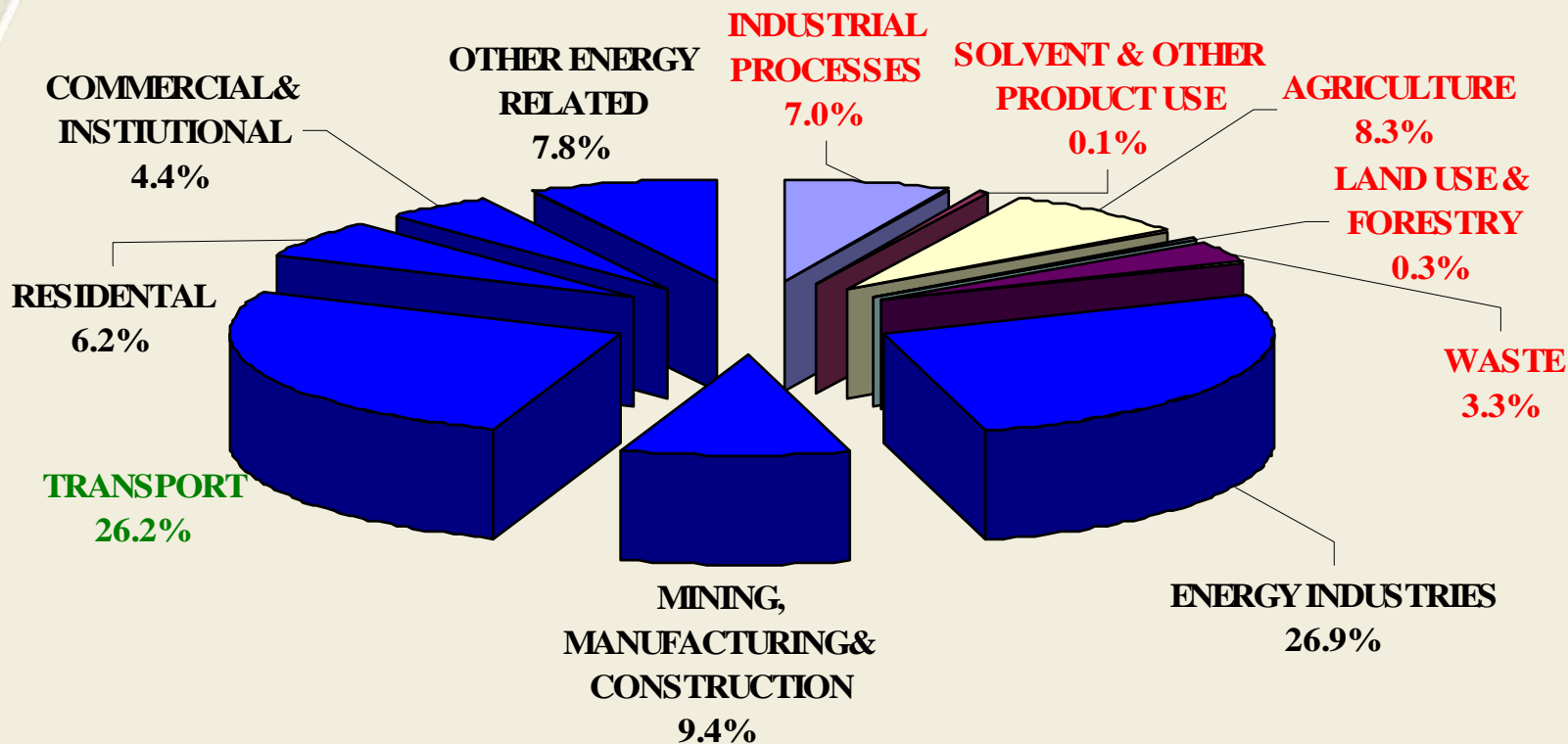
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# State of Transportation GHG in Canada

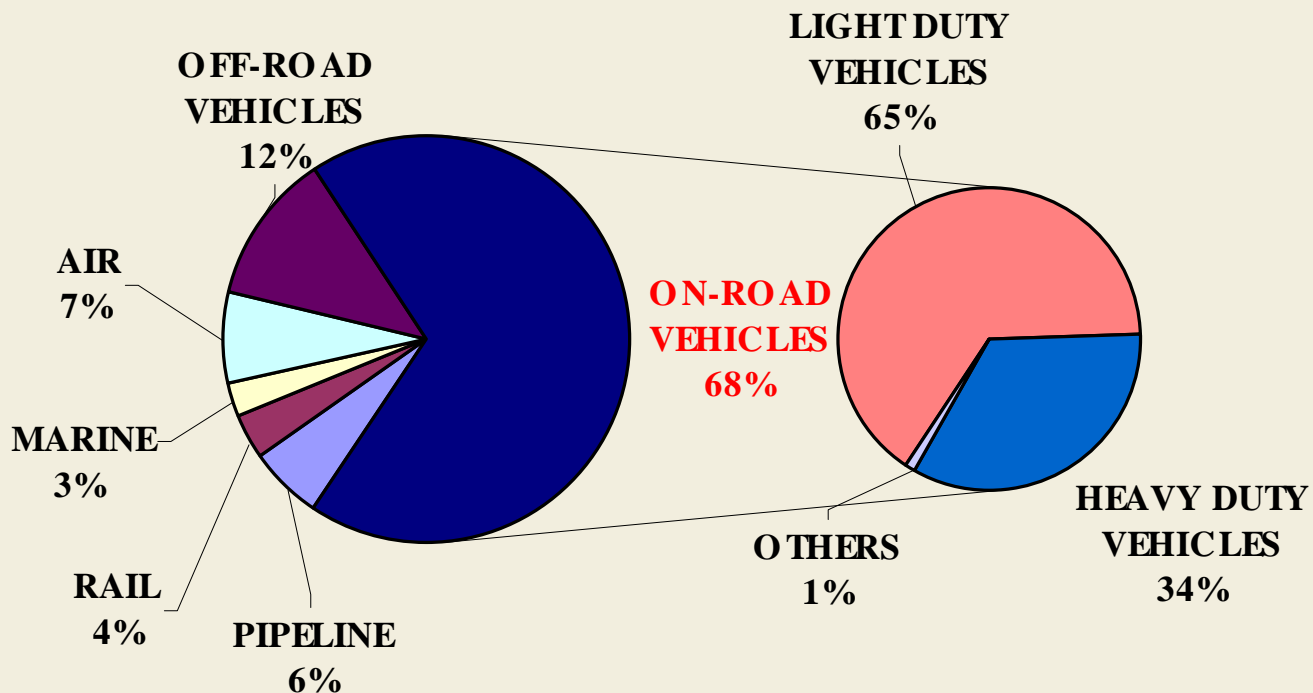
## GHG Emission Sources in Canada





# State of Transportation GHG in Canada

## Transportation GHG Emission Sources in Canada





# State of Transportation EE in Canada

## Energy Use and the Canadian Transportation Sector

- Represents 30% of secondary energy use in Canada.
- Fastest growth rate for energy demand; by 2050, transportation will be Canada's highest energy consumer.
- Approximately 32% of transportation energy is used by commercial/institutional vehicles.
- More than 99% of transportation energy is derived from non-renewable fossil fuels;
  - Energy efficiency is KEY for mitigating increasing demand and reducing negative impacts from burning fossil fuels.



# State of Transportation EE in Canada

## EE and the Canadian Transportation Sector

- Between 1990 and 2004, the average efficiency for medium trucks increased by 5% and for heavy trucks increased by 13%.
- 79% commercial/institutional vehicles operate in fleets (as opposed to owner-operators); fleet management and driver training offers great potential for reaching vehicles with energy efficient best practices outreach.

### Challenges:

- Road restrictions and vehicle size restrictions mean that vehicles can be impeded from following more direct transport routes.
- Vehicle size/weight restrictions also mean that some vehicles are unable to introduce certain energy efficient technologies (e.g.. Aerodynamics).
- Consistent backlog at interface centres yields increased idling.





# Government of Canada's Initiatives



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# Policy Drivers in Canada

## The Kyoto Protocol

- Canada's commitment is to reduce net GHG emissions to 6% below 1990 levels between 2008 and 2012.
  - Adopted on December 11, 1997
  - Signed on April 29, 1998
  - Ratified on December 17, 2002
  - Entered into force on February 16, 2005

## Turning the Corner

- Government's agenda to tackle climate change and air pollution
- Suite of policies implemented in April 2007 to cut 150 megatonnes by 2020 (20% by 2020)





## How climate change programs are organized: Clean Air Agenda

- Today, Canada is addressing climate change and air pollution through its Clean Air Agenda, with the mandate of *“improving health and environmental benefits by reducing air pollutants and GHG emissions and adapting to a changing climate.”*
- The Clean Air Agenda includes regulations and program measures.
- Clean Air Agenda overseen by Environment Canada.
- Activities are coordinated under a horizontal framework (HMARF) that promotes departmental cooperation within certain themes, including *Clean Transportation*.

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# How climate change programs are organized: Clean Air Agenda

## Clean Transportation Theme

- **Goals:**
  - Improved management of sustainable transportation infrastructure in communities;
  - Improved efficiency and reduced emissions of air pollutants and GHG from the movement of goods;
  - Improved efficiency and reduced emissions from the movements of people.

- Includes programs from TC and NRCan:

### Transport Canada:

~ ecoFreight

~ ecoMobility

~ ecoAUTO Rebate

### Natural Resources Canada:

~ ecoENERGY for Personal Vehicles

~ ecoENERGY for Fleets





# How climate change programs are organized: Clean Air Agenda

## Clean Air Regulatory Agenda

- Regulations and supporting activities to be put into place in order to reduce pollutants and GHG emissions from key sectors.
  - **Transportation Sector Regulatory Actions**
    - regulated fuel-efficiency standards under the *Motor Vehicle Fuel Consumption Standards Act* that will take effect for the 2011 model year.
  - **Consumer and Commercial Products Regulatory Actions**
    - amendments to the *Energy Efficiency Act* will allow the Government to set energy efficiency standards and labeling requirements for a wider range of consumer and commercial products that affect or control energy consumption.





# Departmental Roles for Transportation



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# Climate Change and Energy Efficiency Initiatives in Canada

Three key departments are involved in transportation-related Climate change and energy efficiency initiatives: Environment Canada, Transport Canada, Natural Resources Canada.

- High level of coordination between the three departments on environmental policy and programming – through Clean Air Agenda.
- Environment Canada coordinates environmental policy work as set out in the Clean Air Agenda.
- Transport Canada develops policies and programs that foster transportation networks for Air, Rail, Marine, and Road Freight sectors framed by climate change and air quality concerns.
- Natural Resources Canada develops policies and programs that guarantee the responsible use of finite resources, including energy use in the passenger and freight road transportation sectors.

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# Transportation Policies in Canada: Environment Canada

## Environment Canada mandate:

***“to preserve and enhance the quality of the natural environment; conserve Canada's renewable resources; conserve and protect Canada's water resources; forecast weather and environmental change; enforce rules relating to boundary waters; and coordinate environmental policies and programs for the federal government.”***

**Stemming from this mandate, two of Environment Canada's strategic outcomes, as formalized within Departmental Priorities, are:**

- 1) “Canadians and the environment are protected from the effects of pollution and waste.”**
- 2) “The impacts of climate change on Canada are reduced.”**



## Transportation Policies in Canada: Environment Canada (cont'd)

- **Consequently, Environment Canada is lead on the Clean Air Agenda.**
- **Although Environment Canada does not have as its mandate a direct policy or programming role vis-à-vis transportation interventions, it coordinates all Government of Canada efforts aimed at reduced GHG emissions.**
- **Important to note that Environment Canada does provide funding to transportation projects aimed at fostering the use of sustainable transportation modes and GHG-reducing technologies.**





# Transportation Policies in Canada: Transport Canada

## Transport Canada mandate:

*“to serve the public interest through the promotion of a safe and secure, efficient and environmentally responsible transportation system in Canada.”*

- Included in Transport Canada’s vision is a sustainable transportation system that is guided by “respect for the environmental legacy of future Canadians.”
- Transport Canada’s relevant activities have as their goal effective transportation that yields reductions in greenhouse gas emissions.



## Transportation Policies in Canada: Transport Canada (cont'd)

- **Transport Canada is lead on the Clean Air Agenda's Clean Transport Theme and co-lead on Transportation Sector Regulatory Activities.**
- **Transport Canada's activities include programs aimed at shifting transportation demand, promoting energy efficient technologies and best practices, providing incentives for purchasing choices, and working with other levels of government to build a common approach to transportation issues in Canada.**

Transport Canada's Programs include:

ecoMOBILITY; ecoAUTO rebate; ecoFREIGHT



# Transportation Policies in Canada: Natural Resources Canada

## Natural Resources Canada mandate:

*“to develop, implement and deliver policies, programs, science and Technology (S&T) for the sustainable development and responsible use of Canada's mineral, energy and forestry resources.”*

- The Energy Efficiency Act provides Natural Resources Canada with the authority to “promote energy efficiency and alternative energy sources.”
- The Office of Energy Efficiency (OEE) exists to put this Act into operation by developing and delivering programs that encourage efficient uses of energy in Canada. Energy efficient transportation falls under the mandate of the OEE.



## Transportation Policies in Canada: Natural Resources Canada (cont'd)

- **Natural Resources Canada contributes to the Clean Air Agenda's Clean Transport Theme and is co-lead on Transportation Sector Regulatory Activities.**
- **Natural Resources Canada develops policies and programs aimed at reducing the fuel use and related GHG emissions from personal, commercial, and institutional vehicles in all land sectors except for rail.**

Natural Resource Canada's Programs include:  
ecoENERGY for Personal Vehicles; ecoENERGY for Fleets



For more information, please visit:  
<http://ecoaction.gc.ca/>

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## References

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