



# Taking the Wheel

How Canada can cut carbon pollution  
and revitalize its auto sector

CLEAN ENERGY CANADA

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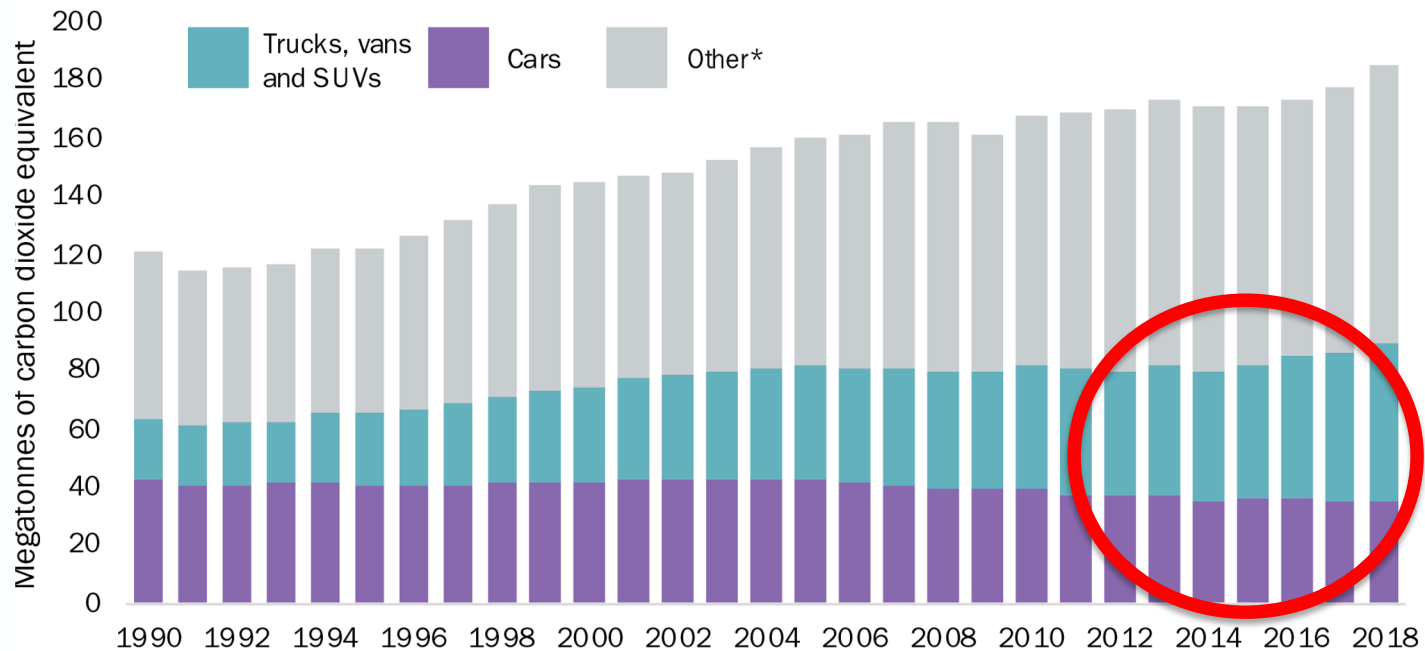
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MORRIS J. WOSK  
CENTRE FOR DIALOGUE

# Canada's Car Conundrum: Transportation emissions are up

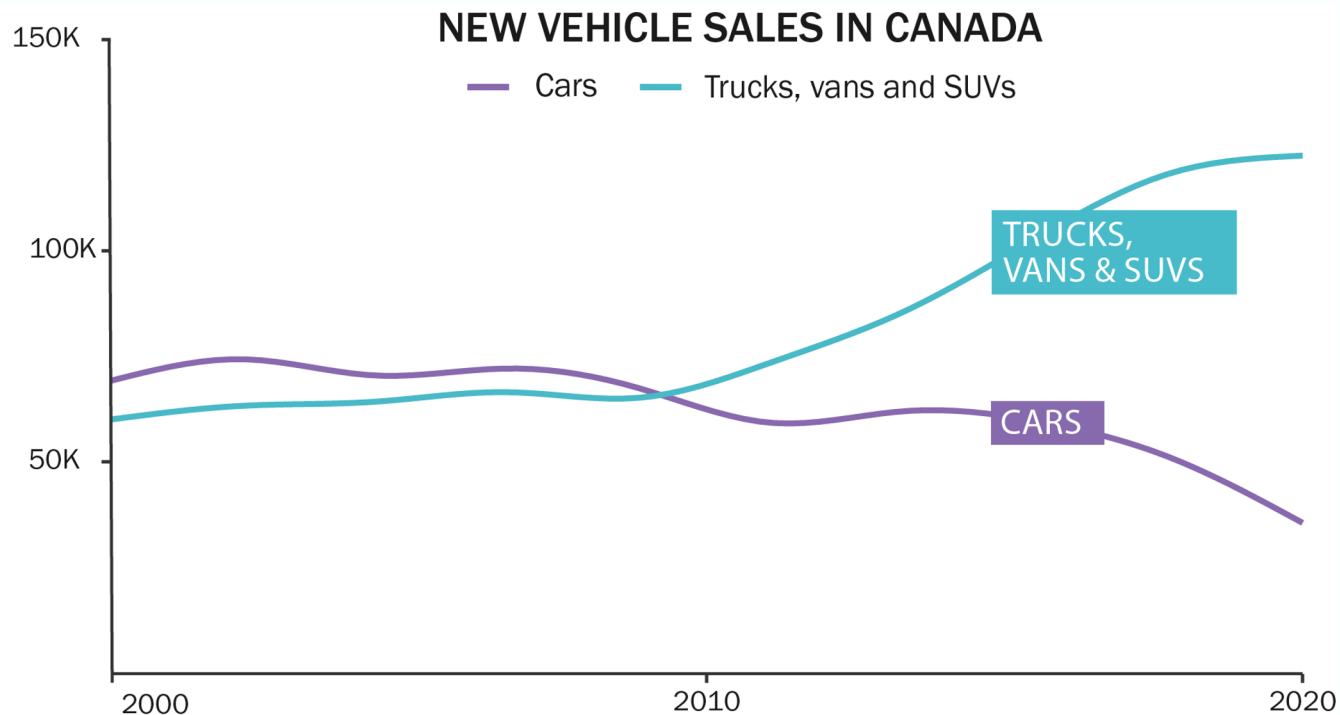
## TRANSPORTATION SECTOR EMISSIONS IN CANADA



\*Includes freight (rail, domestic aviation, maritime, heavy-duty trucks) and other passenger transport (motorcycles, bus, rail and domestic aviation).

Source: Government of Canada. 2020

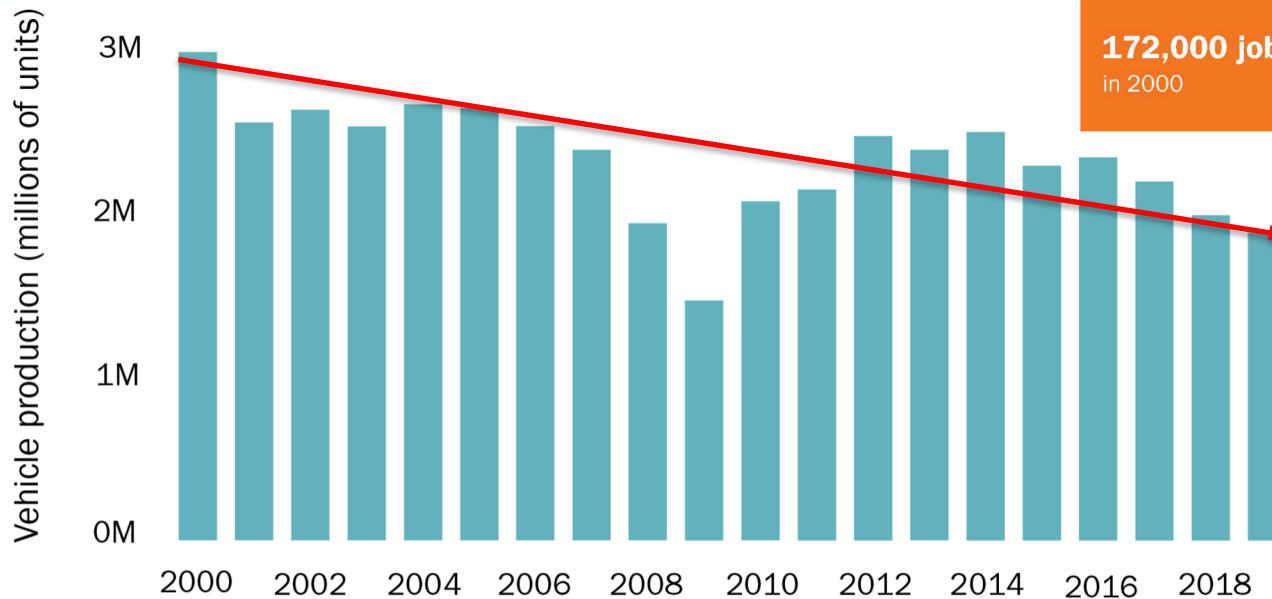
# Canada's Car Conundrum: Transportation emissions are up



Fitted line through monthly (seasonally adjusted) data. Source: Statscan NDM table 20-10-0001

# Canada's Car Conundrum: Auto manufacturing is down

## CANADIAN MOTOR VEHICLE PRODUCTION



**\$18.9 billion**

the sector's economic contribution in 2005

**\$15.4 billion**

the sector's economic contribution in 2019

**172,000 jobs**  
in 2000

**133,000 jobs**  
in 2019

Figures in 2012 dollars.

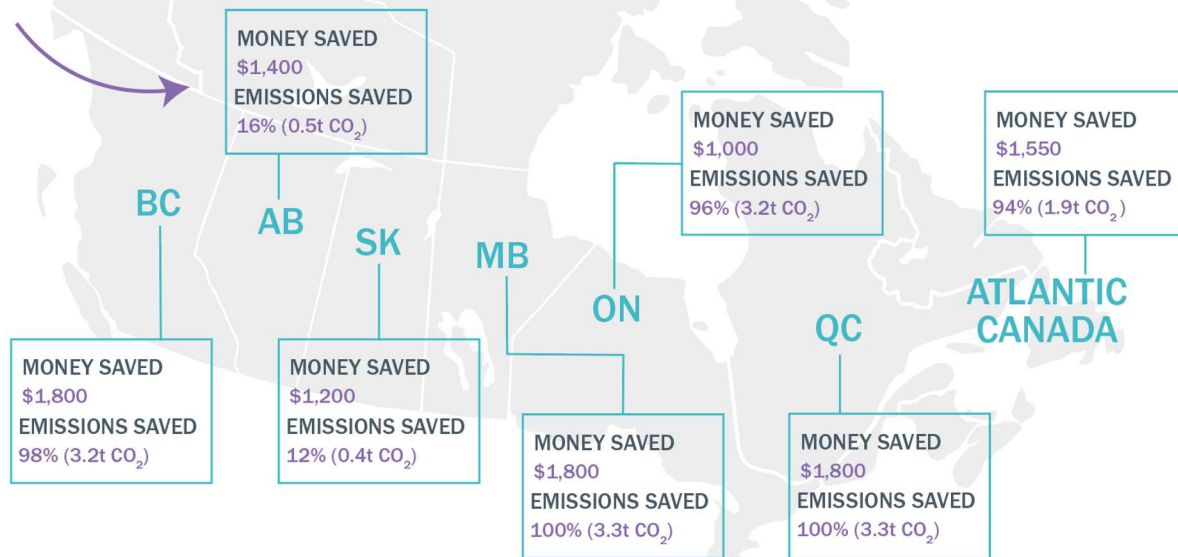
Source: Trillium Network, 2020, Statistics Canada, CANSIM table 281-0024

Source: Trillium Network, 2020 / Automotive News, various years

# The Electric Opportunity: Cost and GHG savings

## The savings by province

Money and carbon emissions saved annually by driving an EV instead of a gas car \*








Data source: The Canadian Energy Regulator, 2020 ; the Government of Canada, 2020 ; Natural Resources Canada, 2020.

# The Electric Opportunity: The Canadian advantage



1. **RESOURCES** – rich in metals and minerals needed to build EVs
2. **BATTERIES** – pioneering research and labs, battery providers for cars, ferries, fork-lifts
3. **INNOVATION** – leading automation and robotics companies, technology design
4. **MANUFACTURING** – electric bus and truck companies, strong auto parts supply chain

# The Global Race to Electrify: World-leading policies

Jurisdiction	Purchase incentives	Charging investments	Strong emission standards / ZEV standard / ICE ban	Auto strategy / manufacturing incentives
U.K. 	✓	✓	✓	✓
Germany 	✓	✓	✓	✓
France 	✓	✓	✓	✓
China 	✓	✓	✓	✓
California 	✓	✓	✓	✓

# A Clean Cars Package for Canada

## DEMAND-SIDE

- ● **Carbon pricing:** Increases the price of fuel that generates carbon pollution
- ● **Financial incentives for new and used zero-emission vehicles, targeting lower- and middle-income Canadians:** Reduces the upfront cost of EVs
- ● **Public charging:** Increases access for charging away from home
- ● **EV-ready building code requirements:** Requires charging in new buildings
- **Right-to-charge requirements:** Provinces should ensure residents of multi-unit buildings have the right to install their own EV charging stations

● Federal policy

● Provincial policy

## SUPPLY-SIDE

- ● **Zero-emission vehicle standard:** Requires automakers to sell a minimum number of EVs
- **Vehicle emission standards:** Requires improvements in fuel efficiency and reductions in vehicle emissions for each model year
- ● **Clean fuel standard:** Requires fuel suppliers to reduce the carbon intensity of the fuels they sell and provides credits for alternative fuels such as electricity and hydrogen
- ● **Incentives for existing manufacturers and new zero-emission manufacturers:** Attracts EV manufacturing through direct funding, tax breaks, or other measures
- ● **Incentives to attract new manufacturers in the supply chain:** Attracts battery and other supply chain manufacturing through direct funding, tax breaks, or other measures



# CLEAN ENERGY CANADA

## TRACK THE ENERGY REVOLUTION

Each Monday we publish the Clean Energy Review, a free weekly digest of must-read climate and clean energy stories from across Canada and around the world.



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