# Québec perspectives and initiatives on road freight transport decarbonization

HEC WORKSHOP ON DECARBONIZING LONG-HAUL TRUCKING IN EASTERN CANADA

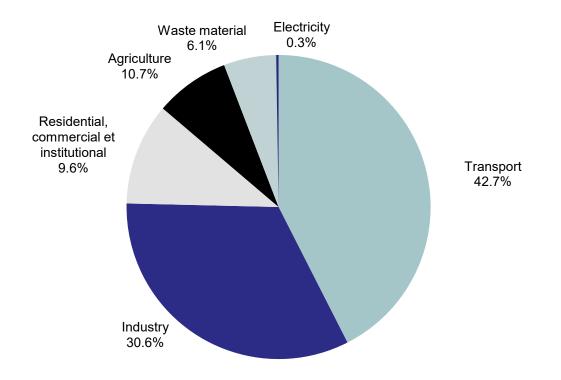
April 25, 2023



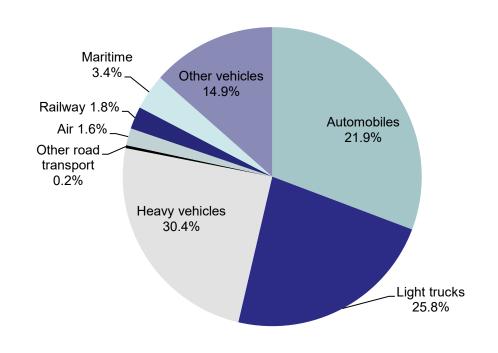


# Inventory of greenhouse gas emissions in Québec (2020)

#### **All sectors**

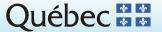


#### **Transport sector**



Source: Inventory of greenhouse gas emissions in Québec in 2020 and their evolution since 1990





# Québec's main objectives in the fight against climate change ...

Reduce GHG emissions by 37.5% below the 1990 level by 2030

 Reduce the consumption of petroleum products by 40% below the 2013 level by 2030

Achieve carbon neutrality by 2050



## Québec government initiatives

2030 Plan for a Green Economy

Québec Green Hydrogen and Bioenergy Strategy





- Implemented by the ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs
- \$331M planned until 2027 to increase the use of renewable energies and efficiency in the freight transport sector
- Écocamionnage and Transportez vert programs result from this plan



- The Écocamionnage program aims to reduce GHG emissions in the road freight transport industry and service vehicles through the implementation of measures to improve energy efficiency or the use of alternative energies
- \$77.8M budget until March 31, 2024
- Financing up to \$175K for battery electric trucks depending on vehicle class and battery power
- The program also provides funding for fuel cell electric vehicles
- Other energy-efficient technologies are also eligible





### Transportez vert program

Financial support for the acquisition of charging stations

\$29.4M budget until March 31, 2027

Financing up to \$60K for a charging station of 50 kW or more



### The Québec Green Hydrogen and Bioenergy Strategy

- Implemented by the ministère de l'Économie, de l'Innovation et de l'Énergie
- Creates a coherent framework and a favourable environment to accelerate the production, distribution and use of green hydrogen and bioenergy



- Clean Fuel Regulations which aim to reduce greenhouse gas emissions from gasoline and diesel fuel through carbon intensity reduction requirements
- The ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs wishes to define a zero-emission vehicle (ZEV) standard for heavy vehicles in Québec over the next months, which would set in place obligations for manufacturers to sell more battery electric or plug-in hybrids trucks
- The ministère des Transports et de la Mobilité durable works with various partners to facilitate the implementation of logistic solutions





- Québec has renewable electricity at a competitive cost
- Low vehicle autonomy and the lack of a dedicated charging station infrastructure currently limit the potential for emission reductions in long-haul transportation
- For green hydrogen and bioenergies, the challenge is to close the current price gap and improve their competitiveness with fossil fuel



