Ontario Freight
GHG Emissions and Policies
Growing the Hydrogen Ecosystem, June 13, 2018
Jason M. Luk, Senior Policy Advisor
Environmental Commissioner of Ontario
Environmental Commissioner of Ontario: Independent guardian of the Environmental Bill of Rights

• Environment too important to be left only to government

• You have the right to:
  • Comment on environmentally significant government proposals;
  • Ask a ministry to review an existing law, or the need for a new one;
  • Ask a ministry to investigate harm to the environment;
  • Seek permission to appeal a ministry decision on permit, approval or other instrument;
  • Use courts or tribunals to protect the environment; and
  • Get whistleblower protection.

Dr. Dianne Saxe
Environmental Commissioner of Ontario: Watchdog over environmental, energy and climate performance
Ontario achieved first of four increasingly stringent greenhouse gas (GHG) emission targets in 2014.
GHGs reduced while economy and population grew

Data Source: Statistics Canada, Gross domestic product, expenditure-based, provincial and territorial (2016), CANSIM Table 384-0038; Statistics Canada, Population by year, by province and territory (2016), CANSIM Table 051-0001.
GHGs down primarily due to electricity, despite transportation

Data Source: Environment and Climate Change Canada, National Inventory Report 1990-2015: Greenhouse Gas Sources and Sinks in Canada (2017), supplemental data provided to the ECO.
Transportation GHGs mostly from passengers, but growing because of freight

Freight GHGs increasing at rate to exceed 2050 GHG target for entire economy

Data Source: Natural Resources Canada, Comprehensive Energy Use Database (2016), Transportation Sector, Ontario, Table 8: GHG Emissions by Transportation Mode.
Freight GHGs dominated by trucks

Data Source: Natural Resources Canada, Comprehensive Energy Use Database (2016), Transportation Sector, Ontario, Table 8: GHG Emissions by Transportation Mode.
GHGs increasing with trucking demand and despite efficiency improvements
Economic growth linked to moving freight, so zero emission trucks likely needed to meet GHG targets
Carbon price too low to spur fuel switching on its own

April 2018 Diesel Price in Toronto

- Provincial Fuel Tax
- Provincial Carbon Price
- Federal Excise Tax
Carbon price revenues subsidize fuel switching via Green Commercial Vehicle Program

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<tr>
<th>Alternative Fuel Commercial Motor Vehicle</th>
<th>Incentive</th>
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<td>(After March 31, 2018)</td>
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<td>New Electric</td>
<td>50% of the incremental purchase cost compared to an equivalent conventional fuel vehicle, up to a cap of $75,000 per vehicle</td>
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<tr>
<td>New Natural Gas (Class 6-8 only)</td>
<td>30% of the incremental purchase cost compared to an equivalent conventional fuel vehicle, up to a cap of $30,000 per vehicle</td>
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Modern Renewable Fuel Standard limited to ethanol after consultations

Based on consultation feedback received from key stakeholders... the Ministry is [amending] existing renewable fuel regulations to increase ethanol blending requirements

Ministry of the Environment and Climate Change
Take away messages

• Freight GHG emissions is Ontario’s fastest growing subsector
  • Growth due to increasing demand and despite efficiency improvements
  • Zero emission trucks are almost certainly needed to meet GHG targets while allowing economy to continue to grow

• New Government = new policies = new opportunities to use Environmental Bill of Rights
  • Public feedback has shaped government policies
  • Sign up to get alerts with keywords, including “hydrogen,” at eco.on.ca
Thank you