The Modernized Green Commercial Vehicle Program

Government Commitment

- Ontario's Climate Change Strategy set the long term vision for meeting GHG pollution reduction targets of 15% below 1990 levels in 2020, 37% in 2030 and 80% in 2050.

- The Climate Change Action Plan (CCAP) that followed is a five-year plan to help implement the strategy and fight climate change.

- Specifically, a commitment was included in CCAP for a new GCVP to provide incentives to eligible businesses to purchase low-carbon commercial vehicles and technologies to reduce emissions, including electric and natural gas-powered trucks, aerodynamic devices, anti-idling devices, and trailer refrigeration units.

Context for Action

- In 2015, the transportation sector accounted for 37% of Ontario's GHG emissions; 26% of Ontario's total transportation sector GHG emissions came from the road-based freight.

- GHG emissions from the road-based movement of freight doubled from 1990 to 2014 in Ontario, peaking in 2006 and decreasing minimally since. The increase in demand for goods over the past 25 years has been met with similar increase in the number of diesel powered trucks, the impact of which has not been offset through more stringent federal emissions standards.

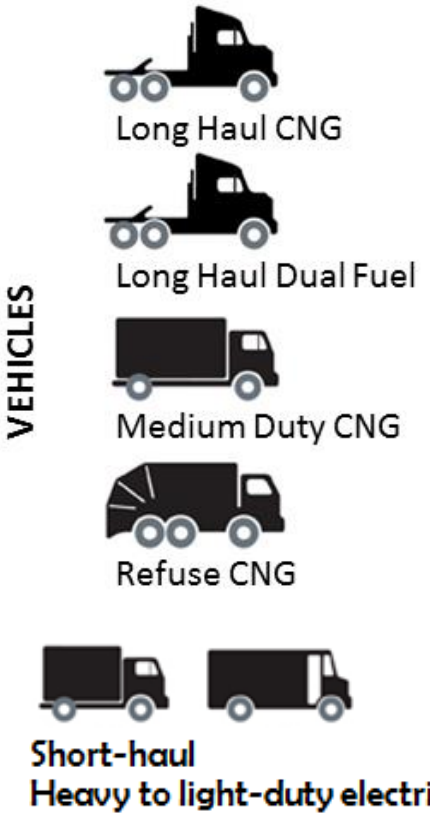
- The CCAP has identified opportunities to reduce emissions in the commercial transportation sector by focusing on improved efficiency and switching to lower-carbon fuels for trucks and buses.
  - An alternative fuel commercial vehicle can reduce up to 55 tonnes per year of GHG emissions, while a fuel-efficient device can reduce up to 20 tonnes. To date, adoption of these vehicles and devices remains low across most types due to purchase costs.

Proposed Delivery Overview

- Rebate-based program predominantly for the commercial transportation sector, where incentives provided upon proof of purchase for three groups of technologies which reduce fuel consumption and/or improve fuel efficiency:
  1. Aerodynamic devices;
  2. Anti-idling devices; and
  3. Alternative fuel vehicles, including electric, natural gas and dual fuel.
- Applicants can apply directly or through a dealer/vendor/manufacturer, who will provide a point-of-sale discount. The administration and application processing of the program will be through the Grants Ontario system.
- In addition, a Commercial Transportation Innovation Pilot Stream is being proposed to support new and innovative proposals as they relate to alternative fuels, vehicles, and technologies in the commercial transportation sector.
- All applicants must consent to provide ongoing operational data as a condition of receiving program funding so that the Ministry can measure success and track results.

Proposed Delivery – Eligible Vehicles

Funding is available specifically for electric, natural gas, and dual fuel (natural gas and diesel) vehicles pictured below:

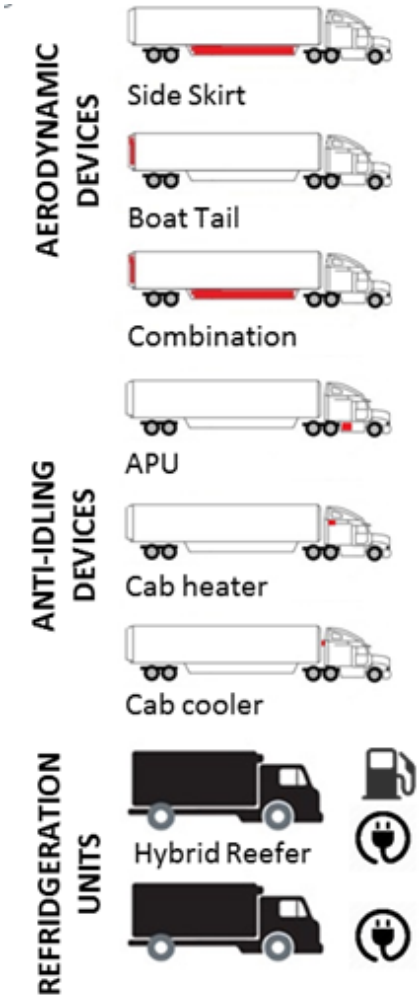


- The Program will offer funding to support the adoption of alternative fuel vehicles that have a Gross Vehicle Weight Rating (GVWR) of 4,500 kg or above, excluding those used for passenger transportation.
- Funding is provided to help offset the incremental costs of the vehicles as compared to an equivalent conventional fuel vehicle.
  - Incentive amounts would be based on 15%-50% of the incremental cost compared to an equivalent diesel/gasoline vehicle with higher incentives offered for vehicles with greater potential for GHG reductions.
- Incentive amounts through the GCVP will be:

Vehicle	Incentive
Electric	50% of the incremental cost compared to an equivalent diesel vehicle, up to a cap of $75,000.
Natural Gas	30% of the incremental cost compared to an equivalent diesel vehicle, up to a cap of $30,000.
Dual Fuel (natural gas and diesel):	15% of the incremental cost compared to an equivalent diesel vehicle, up to a cap of $7,500.

Proposed Delivery – Eligible Devices

Funding is available specifically for devices pictured below:



- Aerodynamic devices attach to the commercial motor vehicle or trailer and provide a more streamlined shape, reduce drag, increase fuel efficiency and lower fuel consumption and emissions.
- Anti-idling devices, which reduce long-duration idling of the main propulsion engine or eliminate the use of the main drive engine when the vehicle is idling, and electric or hybrid electric refrigeration units improve the overall efficiency and reduce fuel consumption.
- Depending on the device (or combination thereof), fuel savings of up to 9% can be achieved. Incentive amounts through the GCVP will be:

Device	Incentive
Side Skirts (verified min 3% savings)	30% of the cost of the new device and its installation (by a certified installer), up to a cap of $2,000.
Boat Tails (verified min 3% fuel savings)	30% of the cost of the new device and its installation (by a certified installer) up to a cap of $2,000.
Combination (verified min 9% fuel savings)	30% of the cost of the devices and their installation (by a certified installer) up to a cap of $4,000.
Auxiliary Power Units (APU)	30% of the cost of the device and its installation up to a cap of $4,000.
Cab Heaters and Coolers	30% of the cost of the device and its installation (by a certified installer) up to a cap of $2,000.
Refrigeration	30% of the cost of purchasing and installing the device and the charging infrastructure up to a cap of $5,000 for diesel-electric units or $7,500 for fully electric units.

Proposed Eligibility Requirements

Vehicle Eligibility Requirements

Type	Registration	Ownership	Use	Others
• Commercial Vehicle • 4500+ kg GWVR	• Registered after launch • Ontario registered • Valid Ontario licence plate	• Owned or leased • Minimum of 3 years ownership	• On-road only • Non-passenger	• MY 2014+ • Certified Kits • Professionally installed (certified)

Device/Technology Eligibility Requirements

Aerodynamics	Anti-Idling	Refrigeration
• Purchased after launch • New, with warranty • Professionally installed (certified)	• Purchased after launch • New, with warranty • Professionally installed (certified)	• Purchased after launch • New, with warranty • Professionally installed (certified)

Proposed Program Application Process

- Applicants must meet the eligibility quality for funding including:
  - Entity: Applicants must be a business, municipality, or Indigenous community,
  - Location: Applicants must be Ontario-based, and have a Business Registration Number (BRN).
  - Safety: Applicants must meet a minimum CVOR rating.
- In terms of the application process, the following list provides a high-level overview of the steps MTO and applicants will take to issue funding through the GCVP:
  1. Purchaser works with dealer to complete application form, indicating interest in a particular alternative fuel vehicle and/or technology.
  2. Dealer or purchaser submits completed application form and all accompanying documentation to MTO via Grants Ontario system.
  3. MTO reviews application for eligibility and completeness.
  4. If approved, funds are accrued and held for applicant.
  5. When purchase is finalized, rebate is either applied at the time of purchase by dealer or the full price is paid by the purchaser.
  6. Dealer or purchaser submits invoice and outstanding documentation to MTO for final approval.
  7. MTO reviews documentation and releases funds to applicant.
- MTO will monitor intake, approved applications and funding availability on an ongoing basis. Should annual funding be depleted a waiting list could be established.

Proposed Data Collection Requirements

- To track results of the program over time, applicants must agree to participate in periodic data collection.
- The GCVP will collect data about both the applicant and the operational practices of the vehicle/technology/device receiving funding. This will provide MTO with essential information for determining levels of GHG reductions and will support the ongoing evaluation and improvement of the program.
- Funding recipients will work directly with a third party provider, as chosen by MTO through a procurement of services process, for the collection of operational data.
- MTO will fund the devices, maintenance and analysis, and no costs will be incurred by the applicants. Funding participants will work with the third party provider to have a telematics device installed on their vehicle, to have it maintained as needed, and to have data collected on a quarterly basis.
- The funding recipient will also work with the third party provider to have the telematics device removed after one year.

Discussion Questions

1. **Program Design**

- Will the incentive values proposed support and promote adoption? How appropriate are the percentages and funding caps proposed for the incremental costs for each supported vehicle fuel type or fuel saving device?
- Are there any potential barriers to successful uptake of the program as designed?

2. **Application and Funding Process**

- Are the eligibility requirements realistic and achievable?
- Is a process where dealer/vendors apply for the rebate on behalf of purchasers preferred? Are there any issues with this approach?
- Is there another funding mechanism that you think would be better suited to fund vehicles and devices?
- Are there any approaches that could be used to streamline or simplify the process of determining eligibility and incentive amounts for specific models of vehicles?

Discussion Questions

3. Data Collection Discussion Questions

- Participation in a data collection program is a mandatory requirement for funding and a sample of applicants may be required to install telematics devices.
- Where fleet vehicles already have telematics devices on board, could this electronic data be shared, both for baseline and funded vehicles, in order to facilitate documentation of GHG reductions?
- Are there any considerations or concerns regarding data privacy?
- Should other types of data be collected in the context of GHG emission reductions?

Next Steps

- Stakeholders to provide feedback and comments on the proposed program through the EBR posting (available for comment until October 6, 2017).

- Following consideration of stakeholder feedback, MTO will finalize program details.

Appendix A - Previous GCVP (2008-2010)

- The original GCVP was a 4-year, $15 million program launched on November 28, 2008 to support Ontario's Go Green Action Plan.
  - From 2008 to 2010, the program provided $4.7 million to 171 companies for 1,635 vehicles.
  - Private sector companies could obtain grants for one-third of the eligible capital costs up to a specified cap (max. varied from $1,000 to $15,000 per vehicle/technology).
  - The program funded 1,108 anti-idling devices for heavy-duty vehicles (591 auxiliary power units, 459 cab heaters and 58 cab coolers).
  - A total of 527 alternative fuel medium-duty vehicles were funded: 252 propane vehicles, 258 hybrid electric vehicles, 4 battery electric vehicles, 7 hydrogen injection vehicles and 6 natural gas vehicles.

- The program was estimated to have saved 3 million litres of fuels annually and avoided 56,200 tonnes of lifecycle GHG.
  - Due to lower than expected demand and fiscal pressures, MTO suspended applications after March 1, 2010.

- This pilot program was limited in scope and, at that time, available alternative fuels and technologies were not as advanced and available as they are today.