

BACKGROUND

enviroTruck: A Look at Some of the Features

The enviroTruck is an initiative of Green Fleets BC, a program of the Fraser Basin Council and funded by the BC Ministry of Environment. The enviroTruck is introduced in BC in partnership with the BC Trucking Association.

To participate in the enviroTruck program, a fleet owner/operator must identify the fleet's standard and potential emission reduction technologies and select from a list of approved technologies (add-on devices) to tailor an approach that fits the fleet. A qualifying truck is one with a 2007 or newer smog-free heavy-duty engine, a speed limiter set to 105 km/hr and a selection of devices that will be tested and tracked over the course of the program.

Add-on devices fall into four main categories: 1) wind reduction, 2) weight reduction, 3) road friction reduction, and 4) emission reduction.

Example of enviroTruck add-on devices and their benefits

Wind Reduction

- Tractor aerodynamics (bumpers, mirrors, roof fairings) can lead to approximately 2% in annual fuel savings and 2.5 tonnes of greenhouse gas (GHG) savings per truck.
- Trailer sideskirts (located in front of the trailer tires) can lead to approximately 4% in annual fuel savings and 5.0 tonnes of GHG savings per trailer.

Weight Reduction

- Aluminum rims (compared to steel rims) can lead to approximately 5% in annual fuel savings and 8.5 tonnes of GHG savings per tractor-trailer combination.

Road Friction Reduction

- Low-rolling resistance tires can lead to approximately 5% in annual fuel savings and 8.5 tonnes of GHG savings per tractor-trailer combination.

Emission Reduction

- Auxiliary Power Units (a smaller power source that provides, heat, air conditioning and electrical power so the big tractor engine does not have to run) can lead up to a 90% decrease in idling time and 13.5 tonnes of GHG savings per truck.

For sample enviroTruck profiles, see reverse.

Sample BC enviroTruck profiles and anticipated cumulative benefits

	Profile #1	Profile #2
Required	<ul style="list-style-type: none"> ▪ 2007 or newer smog-free engine ▪ Speed limiter set at 105 km/hr 	<ul style="list-style-type: none"> ▪ 2007 or newer smog-free engine ▪ Speed limiter set at 105 km/hr
Selected Add-ons	<ul style="list-style-type: none"> ▪ Aerodynamic Mirrors ▪ Hybrid (electric) Trailer Refrigeration Unit ▪ Tank and Centre Chassis Fairings ▪ Low Drag Bumpers ▪ Full Roof Fairing with Side Extenders ▪ Tractor-Trailer Gap Fairings with Rubber Extenders ▪ Under Hood Air Cleaners ▪ Low-Rolling Resistant Tires ▪ Lightweight Tractor Rims 	<ul style="list-style-type: none"> ▪ Aerodynamic Mirrors ▪ Auxiliary Power Unit for Anti-idling (full auxiliary-heat/air) ▪ Centre and Rear Chassis Fairings ▪ Low Drag Bumpers ▪ Full Roof Fairing ▪ Tractor-Trailer Gap Fairings ▪ Trailer Sideskirts ▪ Under Hood Air Cleaners ▪ Low Rolling Resistant Tires
Estimated Annual Fuel Savings	>30%	20% to 25%