

# You, Your Vehicle and **FUEL EFFICIENCY**

Information and  
Resources for  
**CONSUMERS**



**BUYING**



**DRIVING**



**MAINTAINING**



**FUELS**



**One-Tonne**  
**CHALLENGE**

Take action on  
climate change



Natural Resources  
Canada

Ressources naturelles  
Canada

**Canada**

## WHO WE ARE AND WHAT WE DO FOR YOU

Canadians love their vehicles — we own more of them and drive them further than ever before. But rising fuel costs and growing concern about the environment have many Canadians looking for ways to save money and minimize their production of greenhouse gases (GHGs) and other emissions.

Natural Resources Canada's (NRCan's), Office of Energy Efficiency can help. We have a wealth of information and tools that show you how to buy, drive and maintain a vehicle to save money and protect the environment. We can also help you explore the world of alternative vehicle fuels and technologies and introduce you to Canadian leadership and innovation in fuel efficiency.

To learn more about our information products, take a few minutes to read this brochure or visit our Web site

**[oee.nrcan.gc.ca](http://oee.nrcan.gc.ca)**

Many of the tools and publications described in this brochure can be ordered free at the address below.

**Energy Publications  
Office of Energy Efficiency  
Natural Resources Canada  
c/o S.J.D.S.**

**1770 Pink Road**

**Gatineau QC J9J 3N7**

**Tel.: 1 800 387-2000 (toll-free)**

**Fax: (819) 779-2833**

**TTY: (613) 996-4397 (teletype for the  
hearing-impaired)**

## CLIMATE CHANGE AND THE ONE-TONNE CHALLENGE

Passenger road transportation accounts for almost 50% of the personal GHG emissions produced by Canadians. Why are these emissions a problem? GHGs such as carbon dioxide (CO<sub>2</sub>) have been linked to climate change, a serious environmental problem that could have consequences for our health, our economy and our children's future. All Canadian motorists contribute to the problem, but we can all be part of the solution.

The average Canadian produces over five tonnes of GHG emissions per year — enough to fill five two-storey, three-bedroom houses. The Government of Canada is challenging every Canadian to reduce his or her annual GHG emissions by one tonne, or 20%. Making smart transportation choices is a great way to start.

To learn more about the One-Tonne Challenge and how you can reduce GHG emissions while using less energy, saving money, improving air quality and protecting our environment, visit

**[climatechange.gc.ca](http://climatechange.gc.ca)**



## BUYING A FUEL-EFFICIENT VEHICLE

### YOUR VEHICLE CHOICE CAN MAKE A DIFFERENCE

Purchasing the most fuel-efficient vehicle that meets your everyday needs will save you fuel and money and help reduce GHG emissions for as long as you own the vehicle. In partnership with Transport Canada and the automobile industry, NRCan has developed a number of tools, described below, to help Canadians choose fuel-efficient cars and light-duty trucks.

#### ► EnerGuide Label



When shopping for a new car or light-duty truck, look for the EnerGuide label on the vehicle's window. The label shows the model's city and highway fuel-consumption ratings, as well as its

estimated annual fuel cost — information that can help you assess potential fuel-cost savings when comparing vehicles.

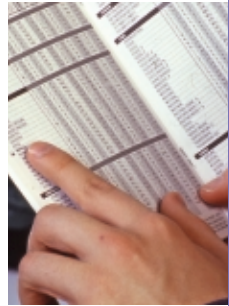
#### ► Fuel Consumption Guide

The annual *Fuel Consumption Guide* allows you to compare the fuel-consumption ratings, estimated annual fuel consumption and fuel cost, and estimated CO<sub>2</sub> emissions for all new passenger cars, light-duty pickup trucks, vans and special purpose vehicles sold in Canada, going back to 1995. This practical guide can help you make the right choice for your pocketbook and the environment.



## ► Compare Vehicles

Use this on-line tool to create a vehicle shopping list and compare the fuel efficiency of new and older vehicles sold in Canada – it will quickly and easily show you which one would be the most fuel efficient!



## ► Most Fuel-Efficient Vehicles



Want to know which are the most fuel-efficient vehicles sold in Canada? Check out the **EnerGuide Award** winners and include these vehicles on your list when looking for a vehicle.

The awards are presented annually to the manufacturers of the most fuel-efficient vehicles in nine categories. Compare the vehicles on your shopping list with these winners for opportunities to save fuel, save money and reduce your GHG emissions.

## ► Tips on Buying a Vehicle

Thinking about buying a fuel-efficient vehicle? NRCan provides practical tips that can help you make the right choice. As well, *The Auto\$mart Guide* explains which vehicle options can save you fuel and money, and it provides information on other important factors to consider when buying a vehicle.

Before you buy your next vehicle, visit



### TOOLS FOR FUEL-EFFICIENT AND ENVIRONMENTALLY FRIENDLY DRIVING

Looking for easy ways to save money and reduce vehicle emissions? Remember, you're in the driver's seat! Your driving habits – when and where you drive, how often, the speed you travel, your aggressiveness on the road and other factors – will have a huge impact on fuel consumption and costs.

#### ▶ Auto\$mart Driver Education

Every year, approximately 300 000 Canadians, most of whom are under 21 years of age, register in driver education programs. If you have a novice driver in the family and you want to get him or her started on the right foot in terms of fuel efficiency and safe driving practices, look for a driving school that uses the Auto\$mart Driver Education Kit. This entertaining kit has been especially designed to help driver instructors deliver fuel efficiency training to Canadian teens.

#### ▶ Fuel Consumption Calculator

Do you know how much fuel your vehicle is consuming? NRCan's handy new Fuel Consumption Calculator may be just the tool you need. It can also help you estimate your vehicle's annual fuel costs and CO<sub>2</sub> emissions. The Calculator is available for gasoline- and diesel-powered vehicles.

#### ▶ The Auto\$mart Guide

Fuel-efficient driving not only saves fuel and reduces GHG emissions, it also improves road safety. *The Auto\$mart Guide* is a great source of information on fuel-efficient driving practices that will help you and your family on the road.

For more information, including tips on how to drive your vehicle with fuel efficiency in mind, visit

**[vehicles.gc.ca](http://vehicles.gc.ca)**

## ► Put a Stop to Engine Idling and the Myths Surrounding It!

Ask Canadian motorists why they idle their vehicles, and you'll likely get a simple answer: warm up the engine before they drive away. It is one of the most commonly held myths in Canada about driving. And it costs you money, wears out your engine and generates unnecessary GHG emissions that are affecting our climate.



Contrary to popular belief, idling isn't an effective way to warm up your vehicle, even in cold weather. The best way to warm it up quickly is to drive it. In fact, with today's engines, you need no more than 30 seconds of idling on winter days before you start to drive.

Did you also know that more than 10 seconds of idling uses more fuel than restarting the engine?

## ► Idle-Free Zone

NRCan's Idle-Free Zone Web site will dispel the old myths and help you learn more about the benefits of turning off your engine when parked. The Web site also offers "Five Steps to Save Money and Help Protect Our Environment." These steps will also help improve the air that you, your family and your neighbours breathe each day.

## ► Idling Is Killing Our Environment

*Idling Is Killing Our Environment* is a brochure that explains how wasteful engine idling is harming the environment. But that's not all – it also offers a simple five-step process to help you change your idling habits. Visit our Web site to order your free copy.

Learn more today, visit



### MAKE MAINTENANCE A PRIORITY

A poorly tuned engine can use up to 50 percent more fuel than one that is running well. Every litre of fuel that your vehicle consumes generates exhaust emissions that contribute to climate change, smog and air pollution – so why burn more fuel than you need to?

#### ► Tips on Vehicle Maintenance

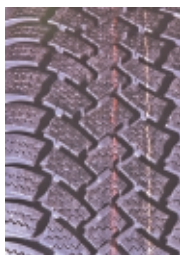
Keeping your vehicle in top operating condition will save you fuel and money, make your vehicle more reliable and improve its resale value. NRCan has helpful tips on proper vehicle maintenance and tires, and even provides you with a printable checklist.



#### ► Be Tire Smart



Are you one of the 70 percent of Canadian drivers who drive their vehicles with at least one tire incorrectly inflated by more than 10 percent? Do you know the effect of improperly inflated tires? Visit the Be Tire Smart Web site at [betiresmart.ca](http://betiresmart.ca) or order your free *Riding on Air* brochure to find out how easy it is to take care of your tires.

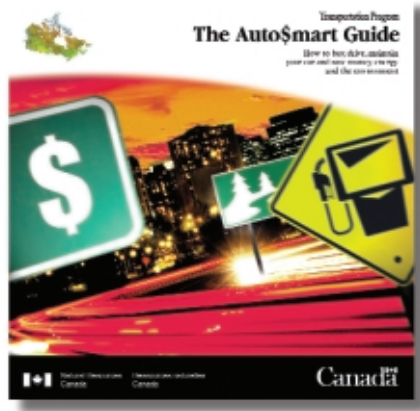


The site also offers information and free, downloadable materials and tools that you can use to design and implement your own tire inflation and maintenance campaign in your community or at your workplace.



## ► The Auto\$mart Guide

*The Auto\$mart Guide* explains how to keep your vehicle in top running condition to minimize fuel consumption and GHG emissions. It also provides information on the importance of maintaining correct tire pressure, how you can reduce unnecessary engine idling, alternative transportation fuels and more.



Find out more information at



# ALTERNATIVE TRANSPORTATION FUELS AND TECHNOLOGIES

### ► Renewable Fuels: Options for Canadian Drivers

The use of renewable transportation fuels is part of a cost-effective and environmentally friendly solution to transportation environmental-related issues. Renewable transportation fuels include ethanol and biodiesel. While, ethanol is currently available to Canadian drivers in about 10,000 retailing stations, biodiesel is still in the developmental stage. Both have great potential in making our future environment cleaner.

### ► Ethanol-blended Fuels

Fuel ethanol is a high-octane alcohol produced from the fermentation of sugar or converted starch. It is usually used as an additive to gasoline, up to a 10 percent level. In Canada, fuel ethanol is most commonly made from renewable products such as grains, corn and wheat. Ethanol-blended fuels combust better than traditional fuels and produce fewer GHG emissions.



### ► How Does the Use of Ethanol-blended Fuels Affect You?

#### Cost

- Ethanol-blended fuels are sold at competitive prices.

#### Performance

- Adding ethanol to gasoline creates higher-octane levels, and octane can enhance engine performance.
- All major vehicle manufacturers warrant the use of gasoline with ethanol. See your owner's manual for details.
- Ethanol-blended fuels provide the same level of quality found in traditional gasoline.
- Ethanol-blended fuels are suitable for all vehicles, new and old, carbureted or fuel-injected.
- Ethanol-blended fuels help prevent vehicle fuel lines from freezing in colder weather.

## Environment – Ethanol-blended Fuels

- Are environmentally friendly
- Are renewable forms of energy
- Produce fewer GHG emissions that contribute to climate change

## Canadian Economy

The Canadian economy benefits from the use of ethanol-blended fuels by

- Reducing Canada's dependence on non-renewable fossil fuels
- Expanding market opportunities for Canadian producers

### ► Biodiesel

Biodiesel, an alternative to classic diesel fuel, is made from different types of oils. Compared with conventional diesel, biodiesel combusts better and produces fewer greenhouse gas emissions that contribute to climate change.

Biodiesel is not widely available to Canadian drivers yet, but some commercial fleets that operate in Canada are using it.

### ► Fuel Cells and Hydrogen

Hydrogen is not available as a fuel for road vehicles today. However, most automobile manufacturers are working on prototypes for hydrogen fuel cell vehicles, so stay tuned.

To find out more, visit



Natural Resources Canada's Office of Energy Efficiency  
*Leading Canadians to Energy Efficiency at Home, at Work and on the Road*

Whether you are building or renovating a home or purchasing a new household appliance or vehicle, the Office of Energy Efficiency can help you make informed, energy-wise decisions that will save you money and lower your GHG emissions.

To learn more, visit

**[oee.nrcan.gc.ca](http://oee.nrcan.gc.ca)**



The **One-Tonne Challenge** calls on each of us to take action on climate change. By using energy efficiently and making wise consumer choices, you can reduce your individual GHGs by one tonne, or about 20%.

**Visit [climatechange.gc.ca](http://climatechange.gc.ca).**