



You Asked About...

Choosing An Environmentally Preferable Vehicle

The Environmental Impact of Driving a Vehicle

Operating a vehicle consumes large amounts of fuel and emits significant quantities of pollutants and greenhouse gases. The gasoline that powers our vehicles is a non-renewable resource which becomes increasingly depleted as the number and size of vehicles on the road increases.

Vehicle use in Canada is a major contributor of air pollutants such as carbon monoxide, nitrous oxides, and particulate matter which impact local air quality and human health. The average car also produces about three times its weight in carbon dioxide every year. The carbon dioxide and other greenhouse gases produced by our vehicles contribute to climate change, which could have serious impacts on our environment, our economy, and our health.

Purchasing an Environmentally Preferable Vehicle

Purchasing an environmentally preferable vehicle starts with sound, long-term planning. By selecting the appropriate vehicle, you will be able to reduce its environmental impact, reduce operating costs and save money.

Here are a few things to consider :

Size

You should purchase a vehicle that does not exceed your needs in terms of size. Larger vehicles, such as SUVs, vans, trucks, and large cars, consume more fuel because they are heavier and tend to have larger engines. If you will need a large vehicle periodically, consider renting one for these occasions rather than purchasing a vehicle that is oversized for most of its use.

Fuel Efficiency

Energy consumption ratings are available for all new passenger cars and light-duty vehicles. These ratings can be found in the Natural Resource Canada's Fuel Consumption Guide available on-line at www.oeenrcan.gc.ca/transportation/tools/fuel-consumption-guide. Compare several models that meet your needs and select the model with the lowest city and highway fuel consumption ratings.

Air Emissions

Although there tends to be some correlation between fuel efficiency and air emissions, it is not always the case. For example, diesel vehicles emit a large amount of air pollutants. Therefore, in addition to checking the fuel efficiency rating, be sure to consult the US EPA Green Vehicle Guide www.epa.gov/emissweb for air pollutant emission ratings.

Traction

Avoid purchasing vehicles with four-wheel drive whenever possible. The weight and friction of the additional drive-train parts can increase fuel consumption by five to ten percent compared to a two-wheel drive vehicle. If you will need four-wheel drive periodically, consider renting a four-wheel drive vehicle rather than purchasing one.

Engine Size

Select the smallest engine that meets your needs. Choosing a mid-size car with a 4-cylinder engine could save you as much as 20% of your annual fuel costs over a 6-cylinder engine.

Luxuries

Avoid added features such as power windows, power seats, air conditioning and seat warmers. These features are an extra cost up-front and also lead to increased fuel consumption over the long term by adding weight to the vehicle and drawing extra power from the engine. For example, power seats can add up to 40-60 kg to a 1,200 kg vehicle and increase fuel consumption over the lifetime of the vehicle.

New Technology and Alternatives to Gasoline

Gasoline is the most widely-used fuel for vehicles in Canada, however there are other options becoming available on the market such as propane, natural gas, and ethanol-enhanced gasoline. Manufacturers are now producing vehicles that accept alternative fuels.

Some new vehicle technologies are available in Nova Scotia, such as the hybrid gasoline-electric vehicle, which can provide up to fifty percent better fuel economy than a gasoline powered engine.

Diesel vs. Gasoline

Diesel vehicles are generally more fuel efficient than comparable gasoline vehicles, which means they emit about 20% less greenhouse gases. However, diesel engines produce higher amounts of air emissions, especially particulate matter and nitrous oxides, which contribute to air pollution and smog. Diesel particulate has been declared toxic under the Canadian Environmental Protection Act because it is very fine, making it very easy to inhale, and could potentially be a health risk. As a result, diesel powered vehicles such as the "Smart Car" rank highly in terms of fuel efficiency and low greenhouse gas emissions, but rank poorly in terms of air quality emissions.

NSEL Sustainable Transportation Policy

As part of the departmental Pollution Prevention Plan, NSEL has implemented a Sustainable Transportation Policy. This policy is designed to reduce the environmental impact of departmental vehicles, reduce its operating costs, and act as an example to other government departments and the general public. The Sustainable Transportation Policy directs NSEL to make fuel efficiency and environmental impact key decision making factors when purchasing or leasing vehicles for department use.

A Little Fuel Efficiency Means More Savings

A car that uses 8.1 L/100 km (combined city & highway) will save the average driver \$439.00 worth of gas per year compared to a car that uses 10.2 L/100 km (combined)

Source: CAA, 2007 Edition Driving Costs, Natural Resource Canada's Fuel Consumption Guide

For More Information

For more information and tips on environmentally preferable vehicles and driving habits, visit the NSEL Pollution Prevention Website:

www.gov.ns.ca/enla/pollutionprevention/



Environment and Labour

This publication has been developed to support the Nova Scotia Department of Environment and Labour's Pollution Prevention Plan and the goals of the government-wide sustainable procurement initiative

