



FLEET SAFETY

Fuel efficiency





Welcome

Welcome to Fleet Safety online training. This module examines fuel efficiency.

This module will take **5 to 10 minutes** to complete.

Learning objectives

Once you have completed this module you will be able to:

- ☒ describe how a vehicle can be driven to improve fuel efficiency
- ☒ describe how improving fuel efficiency can improve environmental stability
- ☒ identify resources available to assist commercial fleets to improve their driving practices and fuel efficiency.



Module overview

You will need to complete the following sections to complete the module:

1. Why maximise fuel efficiency while driving?
2. How can you maximise fuel efficiency while driving?
3. How is fuel efficiency linked to environmental stability?

Further information.

► ***You'll need to think about how you apply this knowledge with commercial fleet managers you work with.***

FUEL EFFICIENCY

Why maximise fuel efficiency while driving?



FUEL EFFICIENCY



Why maximise fuel efficiency while driving?

Maximising fuel efficiency increases company profit and productivity.

How much do you think the cost of fuel contributes to the cost of operating a vehicle?

Make your selection below

6%

11%

16%





Why maximise fuel efficiency while driving?

11%

Fuel can account for up to 11% of the cost of operating a vehicle. Any saving on fuel usage can make a difference to vehicle operational costs and company profitability.



Vehicle performance and fuel consumption has a major influence on the success of any company with a commercial fleet.

When commercial fleet managers choose safe, 'fit for purpose' and fuel efficient vehicles, their company will not only use less fuel, increase profit and productivity, but also protect drivers and other road users.

FUEL EFFICIENCY

How can you maximise fuel efficiency while driving?





How can you maximise fuel efficiency while driving?

Vehicle choice and maintenance

- To choose a more fuel-efficient vehicle that is fit for the work intended, check the fuel economy label on vehicles for sales.
- Choose a vehicle with speed limiters or cruise control – you could save up to 6% in fuel
- Keep all vehicles well-maintained and regularly serviced
- Use a fuel with the octane rating that suits your vehicle's engine.
- Choose a vehicle with aerodynamic cab deflectors, which help reduce drag.





How can you maximise fuel efficiency while driving?

Driving habits

- Plan every journey to get to your destination in the most efficient way
- Remove any unnecessary items – extra weight in your vehicle increases fuel consumption by 2% for every 50kg
- Switch your engine off if it is idle for more than 30 seconds
- Only use your air conditioning when you need to and save up to 10% fuel
- Keep a constant speed, accelerate smoothly and change gear early
- Check out what is happening ahead to allow you to adjust your speed early
- Mind your speed on the open road – this can increase your fuel costs by up to 10%.

AIR CONDITIONING

10%

EXCESS WEIGHT

2%+

EXCESS SPEED

10%



FUEL EFFICIENCY

How is fuel efficiency linked to improving the environment?



FUEL EFFICIENCY



How is fuel efficiency linked to environmental stability?

Carbon dioxide (CO₂) is the main greenhouse gas that contributes to climate change.

What proportion of New Zealand's CO₂ emissions do you think come from our transport sector?

Make your selection below

20%

30%

40%

FUEL EFFICIENCY



How is fuel efficiency linked to improving the environment?

40%

The transport sector accounts for 40% of our country's CO₂ emissions! Fuel combustion in a vehicle's engine automatically releases CO₂. So the more efficiently we use fuel, the less CO₂ we'll produce.

What can you do to help?

- purchase fuel efficient vehicles
- keep vehicles well maintained
- adopt driving practices that use less fuel.



► ***These practices are not only good for the environment, but will increase safety, reduce operational costs, and increase profit and productivity.***

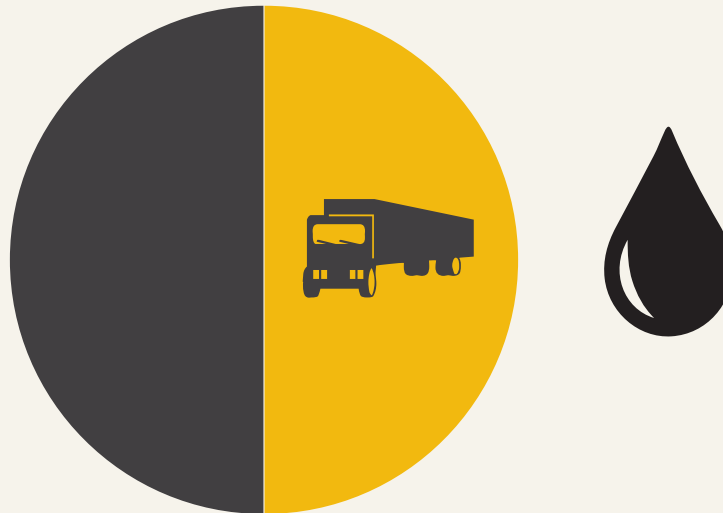
FUEL EFFICIENCY



How is fuel efficiency linked to improving the environment?

The transport sector uses almost half of New Zealand's ongoing consumption of fossil fuels – that's petrol and diesel.

But alternative fuels are constantly being tested to find viable alternatives that have lower CO₂ emissions than the fossil fuel most commercial fleet companies currently rely on.



FUEL EFFICIENCY



How is fuel efficiency linked to improving the environment?

Which of the following fuels do you think would have lower CO₂ emissions than fossil fuels most fleet companies use?

- ☐ Hybrid – electrical power.
- ☐ Ethanol – produced domestically from corn and other crops.
- ☐ Bio fuel – an alternative fuel produced from renewable resources.
- ☐ Biodiesel – derived from vegetable oils and animal fats.
- ☐ Propane – also called liquefied petroleum gas (LPG).

FUEL EFFICIENCY



How is fuel efficiency linked to improving the environment?

Every single one of these alternative fuels produces less CO₂ than traditional fossil fuels like petrol and diesel.

- ✓ Hybrid – electrical power.
- ✓ Ethanol – produced domestically from corn and other crops.
- ✓ Bio fuel – an alternative fuel produced from renewable resources.
- ✓ Biodiesel – derived from vegetable oils and animal fats.
- ✓ Propane – also called liquefied petroleum gas (LPG).

FUEL EFFICIENCY



How is fuel efficiency linked to improving the environment?

Currently 80% of light commercial fleet companies use petrol and 15% use diesel. Using a fuel such as LPG instead of petrol can reduce the effect of the CO₂ emission at the tailpipe by as much as 40%!

Alongside better fuel choices, other technological advances such as fuel boosters (specially formulated to increase fuel and engine performance) can further improve fuel efficiency by up to another 10%.

► ***Fleet companies can choose vehicles that use fuels with lower CO₂ emissions, and use products like fuel boosters to further improve their fuel efficiency.***



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Further information



FUEL EFFICIENCY



Further information

Here's a simple acronym for you to remember how to use less fuel, save money and be a little more environmentally friendly.

Fuel efficient driving and vehicles

Use less fuel

Emit less harmful CO₂ into the environment

Lower operational costs and increased productivity and profit



Further information

The Safe and Fuel Efficient Driving New Zealand (SAFED NZ) website – <http://safednz.govt.nz> ➡ has information about courses for truck, bus and coach drivers on safe and fuel efficient techniques that will reduce fuel costs and reduce emissions.

The Fuelsaver website – www.fuelsaver.govt.nz ➡ helps you work out how much you currently spend on fuel and provides information on fuel-efficient vehicles, comparing the running costs of different makes and models so you can make an informed decision when choosing a vehicle.

The Rightcar website – www.rightcar.govt.nz ➡ has information on safety, fuel economy and vehicle emissions to help you make the right choice when choosing a vehicle.

Energy Efficiency and Conservation Authority – www.eeca.govt.nz ➡ has further details on environmental stability, fuel efficiency and research reports.