

Ecodriving: Use Your Gears Effectively



How you drive directly affects the amount of emissions produced by your vehicle.

Ecodriving is a smooth, flowing and anticipatory style of driving that reduces fuel consumption.

Changing gears at the right time is a technique that can be learned and refined with practice. Once mastered, the habit can deliver significant fuel savings.

Automatic Transmissions

Efficient gear selection is not only relevant for vehicles with a manual transmission. Some automatic vehicles allow you to influence gear changes by selecting an *eco* or *efficiency* drive mode.

Eco and efficiency modes may also be available in vehicles with continuously variable transmissions (CVTs).

You can also learn to manage automatic gear changes using your acceleration technique, with the aim of initiating a shift up to the next gear.

Many light vehicles also offer a semi-automatic transmission, which gives you greater control over gear selection.

Manual Transmissions

Using your manual transmission for efficiency requires a few simple techniques:

- Aim to keep engine revolutions-per-minute (RPM) low;
- Using the highest gear practical;
- Change gears as early as practical;
- When changing up, skip gears where possible;
- Maintain a steady speed; and
- Whenever you drive, consider traffic conditions, hazards and safety. Coasting out of gear is dangerous, as it reduces your options to control your vehicle in an emergency – don't do it.

Higher gear, Lower RPM

Typically, engines run most efficiently at lower revolutions per minute – for a given output, this is achieved using a higher gear.

When ascending through the gears aim to change up between about 1,500 RPM and 2,500 RPM for petrol vehicles, and at about 2,000 RPM for diesel vehicles.

Further information:

Email: DPTI.LowEmissionVehicles@sa.gov.au

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These values are guides only; vehicles vary. Older petrol vehicles may need higher RPM before changing up than modern petrol and diesel vehicles.



Vehicle Technology Helps

The *overdrive* system increases the gear ratio and allows for steady highway speed cruising at lower RPM, and associated efficiency improvement.

Cruise control can also be used to help keep speeds steady – in the optimum gear – for flat highway drives.

Some heavy vehicles include automated manual transmissions which keep the engine operating at optimum torque. These systems are ideal from driving in traffic, where frequent gear changes are needed, and help reduce wear on the clutch.

Details of other ecodriving techniques and complementary fuel saving actions are provided in separate fact sheets (see right).[□]

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See Also:

- [Ecodriving](#)
- [Ecodriving: Avoid Unnecessary Idling](#)
- [Ecodriving: Look Up, Plan Ahead & Mind the Gap](#)
- [Ecodriving: Drive Smoothly](#)
- [Ecodriving: Smart Use of Air Conditioning](#)
- [Ecodriving: Pro Tips](#)
- [Reducing Emissions: Maintenance and Tyres](#)
- [Reducing Emissions: Aerodynamics and Loading](#)

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