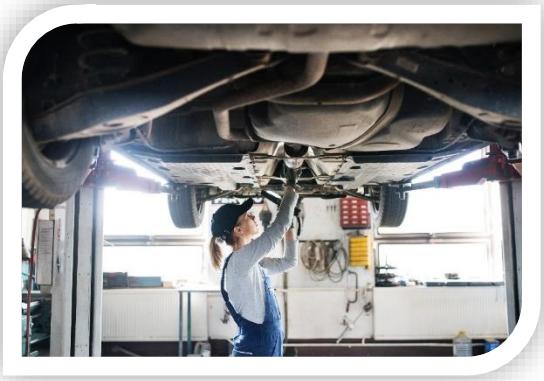
Eco-Driving Tips

This guide is carefully designed to support drivers of the Denby Dale Centre transport services. It will help them consider their driving habits which in turn effects their impact on the environment, whether driving a fleet minibus or their own car – as well as helping cut costs.

Maintenance -

Have your vehicle serviced regularly. This helps maintain efficient running and good economy. Inefficient, under-serviced engines can reduce fuel economy by ten per cent or more. Catalytic converters are environmentally friendly - but only if they are properly maintained.



Regular servicing can really help in running an efficient vehicle – follow the owner's handbook for details and guidance.

Check your tyres. Correct tyre pressures will keep wear down and fuel economy up. Under-inflated tyres need replacing more often (itself an environmental problem) as well as being potentially dangerous. Make a point of checking them at least once a week.

Driving technique.

Anticipate, observe and use 'accelerator sense'. Do you go straight from the accelerator to the brake? You will save fuel if you anticipate and ease off the gas earlier, which will use engine braking, gently bringing the speed of the vehicle down prior to braking as you come to a halt; rather than braking hard as you hit traffic. There's no point in rushing to join a queue and then having to brake hard to come to a sudden halt. Every time you do brake, you waste the fuel you used to get to the speed from which you had to brake! Heavy acceleration and braking increases tyre wear, every slip and slide removes rubber from that tyre.

Smooth driving is economy driving - accelerate and brake gently, read the road ahead, avoid unnecessary hard braking; ease off the power early, then reapply when required. Keep rolling in traffic, because stopping and starting uses more fuel.

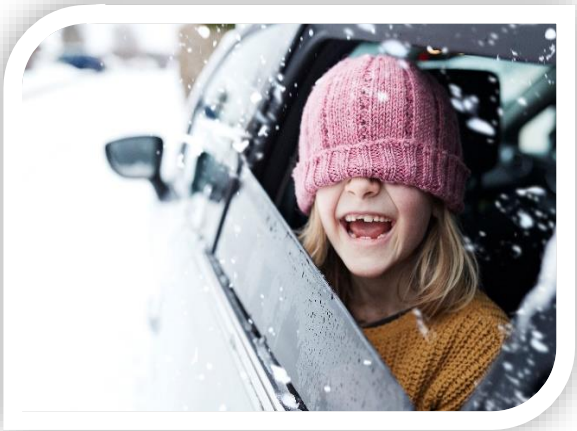
Try to ease off the throttle as you reach your cruising speed. Doing 60mph uses almost 25 per cent less fuel than at 70mph (just be aware impeding the flow of traffic) and a smoother driving style can bring significant money saving.

Never coast in neutral or with the clutch disengaged to save fuel, especially downhill. By keeping the engine of a modern car engaged and in gear when descending a hill your fuel will be cut off to zero automatically - whereas coasting downhill with the car in neutral will actually use fuel to keep it ticking over. Using the right gear for hill descent will keep you more in control, giving you the appropriate gear for dealing with any situation and saving your brakes– again saving money.

Change up earlier, keep an eye on those RPMs, change at around 2000 for diesel or 2500 for petrol - many newer cars have gear change indicators. A driving technique called Short shifting can be used, this is where the gear is changed up before reaching maximum engine RPM or, don't forget, the higher the revs, the more fuel used, and an increased cost.

Gear selection

Check that gear, if you are setting off downhill, do you need gear 1, could you set off in gear 2? this will reduce the RPMs, and give you more control; driving on the flat or down hill, you may be able to 'block change', this is where you miss a gear, maybe going from 1 to 3 or 2 to 4; this can be applied to changing down too -this will result in fewer gear changes, less clutch use, longer life and lowered maintenance bills.



Hanging about.

Don't sit ticking over, this wastes fuel, gentle driving will allow the modern engine to warm up.

Use (environmentally friendly) de-icing products rather than letting the car idle with blowers on – Did you know that many cars are stolen on frosty mornings while the owner pops back in the house leaving an unattended car with engine running?

Is it best to idle or switch off or start/stop when at lights or in traffic?

Unless your car has an automatic stop/start system, don't switch off to save fuel unless your engine's warm, you expect not to move for 3 minutes or so (at a level crossing for example) and you know you've got a good battery.

Cars with 'stop/start' have up-rated components and systems to make sure the engine only stops if it will restart:

- Up-rated battery, starter motor and charging system.
- Many have a second battery to help protect sensitive electronics when restarting.
- Battery monitoring to disable stop/start if the battery is tired.

- A control system to restart as soon as the driver presses the clutch pedal (or releases the brake pedal on an auto)
- Monitoring of air-con, engine temperature, and electrical loads that could affect re-starting
- Monitoring the Diesel Particulate filter (DPF) if fitted
- Specially hardened engine bearings designed for a high number of engine start-ups

Be aerodynamic

Reduce the drag factor by removing roof racks and carriers when not in use. Driving with the window open also increases drag and lowers fuel economy. It's better to use the vent settings as much as possible - Air conditioning lowers fuel economy, after market wide tyres can add rolling resistance in turn ups your price per mile.

Save weight

Remove unnecessary boot luggage - empty your car of all non-essential items, the more weight you have to move – the more fuel you will use, avoid heavy accessories. Why fill the tank up to the very brim? If you do, you will be carrying around additional fuel, which in turn means the engine must work harder for the same speed.

Other thoughts

Reverse in when you park. When you start off again, the engine will be cold and at its most inefficient. If you can drive smoothly away without having to reverse when the engine is cold, not only will you save fuel you will also have better visibility, reversing into a car park will lead to an easier exit as you will be filtering into the flow of traffic, as opposed to reversing 'against the flow' while trying to exit the parking spot.

Plan your route.

A bit of forethought can save much wear and tear - for the car, and the driver. Try to take the most direct route and go in off peak times, try and avoid ‘rush hour’ if possible. Sitting in congestion means you are doing zero miles per gallon. Does your job allow for flexible or home working?

Using online mapping / satnav can aid you in avoiding congestion – please note; all devices MUST be fixed in a hands-free manner.

Ask yourself: "Do I really need to drive?" It's the shortest journey - less than two miles - which causes the most pollution and inefficiency in terms of fuel consumption. A straining cold engine will produce 60 per cent more pollution than a warm one. Yet it's these shorter journeys that are ideal for walking or cycling.

If you must commute by car, think about car sharing, Park and Ride schemes alternatively, use public transport.

How much can you save?

If you want to see how much you can improve on your current fuel consumption, and you've got an on-board computer that shows miles per gallon/mpg then it's easy:

1. Take a note of the overall average you're getting now
2. Reset the computer and start recording a new average
3. Try to compare similar periods of time – whole weeks or months say – and similar types of driving

To work out your average mpg without an on-board computer:

1. Fill the tank and record the mileage,
2. Refill the tank and record the mileage and the number of litres,
3. Divide the mileage between top ups by the total number of litres used and multiply by 4.546 to get miles per gallon.

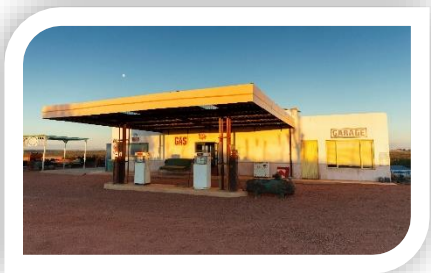
Example:

If you've covered 400 miles and used 42 litres of fuel, your average mpg =

(400/42) x 4.546 = 43mpg)

To get an idea without using full tanks at a time, keep an eye on the fuel gauge-
When you get to ¼, go and fuel up, put in say 20ltrs and note the mileage.
When you get back down to ¼, put another 20ltrs in, note mileage.

Continue doing this and watch the average,



Just one thing

Let's not be too phased by all this information, one step at a time, why not, right now, see if we can do one of the following -

- Remove unnecessary items out of your car.
- Check your tyre pressures.
- Have you got roof bars; do you need them on now?
- Check your oil level.
- Practice 'short' and 'block' shifting.
- Make a list of errands, can you plan a logical route to save you time – and money.
- Think – would public transport work for you?
  Think – could you car share with a work colleague?

Credit for this information:

- The AA
- Hypermiler
- Institute of Advanced Motoring
- The Denby Dale Centre

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