

Small change

When someone suggests you should seriously consider 'going green,' what's your reaction? Do you vehemently defend all the steps you've already taken and follow that up, without taking a breath, with what you're planning to do next? Do you simply shrug your shoulders and quickly change the subject? Or are you typical of what most green surveys seem to conclude – that the majority of us acknowledge it's probably a good idea, but prefer not to spend any money on improving our green credentials until it's absolutely necessary or mandatory?

For those in the latter category, it's worth noting that you don't need to be a tree-hugger; indeed, some moves towards going green require no expenditure at all. And, for transport operators, some changes that do need up-front investment will, in time, pay for themselves.

Quite simply, the way to reduce emissions of CO₂ – the main culprit when it comes to global warming – is to reduce fuel consumption. And reducing the annual bill for fuel by as little as 5–10% clearly means a major reduction in one of the transport industry's biggest operational overheads. So there is potential for a win-win here.

So what initiatives are open to transport operators before the days when fleets are comprised solely of zero-emission trucks, vans and buses? What can be done now to reduce fuel consumption and CO₂ emissions? Whether you run 40-tonne trunckers, urban-delivery 7.5-tonners, LCVs or buses and coaches, the first port of call is encouraging your drivers to be more economical. The Eddie Stobart organisation famously tempts its drivers with a bonus for meeting fuel economy targets. Such a scheme can earn drivers an additional £1,600 a year.

Tracker – probably most recognised for its stolen vehicle recovery capabilities – offers a programme called Tracker Reporter. James Moore, head of channel management for the firm, says the days of just track-and-trace are over. "In terms of improved driver performance, we have the capability to interface with on-board vehicle systems to identify things like harsh braking and harsh acceleration. The system will also report the number of minutes that a vehicle is idling," he says.

"If a company can reduce unnecessary idling across its fleet, there is both a fuel saving and

reduction in CO₂ emissions. The operator can also identify how fast vehicles are going and for how long they over-speed. Ignoring the legal and insurance implications, fuel consumption goes up dramatically for every 10mph by which a vehicle exceeds the speed limit," states Moore.

What costs are involved? Expect to spend £300 to £500 on a system, with a monthly subscription of around £10 per vehicle. As more capability is added, for more information, so the subscription rises to £15 or £20 per month. As an alternative, Tracker offers a rental option, where there is no payment for the hardware or its installation, but the monthly subscription moves up to around £33 per vehicle. "When you cost that over three years, you would expect to pay around £1 per vehicle per day," explains Moore. "It doesn't take a genius to realise that equates to about a litre of fuel, which is very, very easy to save."

One satisfied user is Red Bull Technology, the 2010 World Championship-winning F1 team, which has installed the system across its fleet of 16 trucks, used to transport the cars and equipment between races. "Tracker Reporter delivers everything we need to know to monitor driver behaviour, fuel efficiency and the status of our vehicles," states transport manager Ed Porter. "This plays a vital part in our commitment to staff well-being, efficient fleet management and the ongoing success of the business."

Take the train(ing)

Of course, there is a chance that drivers could object to so-called 'spy in the cab' technology. Jonathan Moore, ITS technical specialist at MIRA, one of Britain's best established research and development organisations, firmly advocates driver training. But he acknowledges some potential hurdles: "It's very important to involve the drivers upfront, because it's very easy for people to think that you're introducing Big Brother," he says. "However, the quicker you can get a driver to adjust, the quicker you can achieve fairly big savings in fuel consumption and therefore CO₂ emissions."

MIRA recently won a Low Carbon Vehicle Partnership award in the LoCVP HGV challenge, designed to promote innovative low-carbon technology for trucks. The Nuneaton-based organisation showed how aerodynamics can also

for green

**What can operators do to become more environmentally friendly?
Keith Read investigates approaches that need not cost the earth**

greatly reduce fuel consumption and hence CO₂ emissions. In fact, its design showed a 30% reduction in drag, which, says MIRA, equates to a 20% reduction in both elements, without loss of cube or payload on a 4.5m trailer.

Such developments may be for the future, but one of the team behind the work, Angus Lock, says truck operators can do a lot right now, without having to rush out and buy new trailers. "You have the situation where OEMs make the cab, trailer manufacturers produce their bit – and no-one does the job of optimising the two," he explains. "Matching the roof spoiler to the trailer is worthwhile. So often you see trucks on motorways, with the spoiler in entirely the wrong position. Operators could do an awful lot simply by matching the height of their cab spoiler to the trailer they are towing."


To illustrate just how beneficial fairly basic aerodynamic improvements are, Lock cites work recently undertaken for Lawrence David, reducing drag by 15% on one of the manufacturer's 4.5m box trailers.

That approach might be ideal for large, thirsty HGVs, but what about fleets of LCVs? One small, pioneering West Country company has an answer for rear wheel drive Ford Transit drivers today – and Ford and other manufacturers' front wheel drive vans in the not-too-distant future. Ashwoods of Exeter produces what is basically a bolt-on hybrid power plant that doesn't cost the earth, instantly makes your Transit much greener – and claims that the retro-fit kit will pay for itself within three years.

The award-winning firm has already supplied a number of fleets – mainly local authorities – with its Hybrid Drive and is a supplier under the DfT's (Department for Transport) Low Carbon Vehicle Procurement programme. It is now also working with Citroën to develop a version suitable for that OEM's front-wheel-drive vans.

Hybrid Drive employs an electric motor, coupled to the prop shaft, to generate electricity under braking. The power is stored in lithium-ion batteries, and used to assist the internal combustion engine under acceleration and arduous driving conditions. Fuel savings – and therefore CO₂ emissions reductions – average at between 15% and 25%, according to the company. The best returns showed a massive 37% improvement.

David Balchin, Ashwoods' head of sales, suggests that an operator covering 30,000 miles per year, buying diesel at 125p per litre and averaging 26mpg, would, with a 25% saving in consumption after fitting Hybrid Drive, cut his fuel bill by £4,900 over three years. With an expected minimum six-year vehicle life, the system would pay for itself more than twice over, while constantly cutting emissions, as well as reducing engine wear, he says. And that checks out, since Ashwoods quotes a unit price – including fitting – of £4,500 for orders in excess of 150. That falls to £4,000 for orders for 500 van fleets.

With more pressure on operators to reduce the costs of running their fleets, it is highly likely that more solutions will emerge throughout 2011. Many may promise more than they deliver, but, rest assured, given the evidence so far, there are many reasons to be optimistic. 

Going green outside the vehicle

As well as looking at ways to reduce fuel consumption and cut CO₂ emissions, it's worth considering some other, frequently overlooked, ways of using less energy, reducing waste, recycling more of what is dumped, and being more economical and ecological.

Although individual contributions to going green might seem tiny, if we all take on board everything, and do as much as we can, the sum of the effort could be massively beneficial.

The not-for-profit Carbon Trust advocates employing the three Rs – reduce, reuse and recycle. It also has advice for businesses of different sizes on its website (www.carbontrust.co.uk).

Some of the advice might seem obvious, but, if you're not already doing it, why not switch off office and workshop lights and equipment when not in use? Phone and laptop chargers are also targets, since they still consume up to 95% of the power they use, even when the device being charged is not connected.

In the office, there are many similar ways to go green, such as setting duplex printers to print on both sides of paper and print only the information you really need. Elsewhere, boiling only sufficient water in the kettle for a brew and installing low-energy light bulbs can make a big difference.

