

# Carbon offsetting

In pursuit of reversing the amount of carbon dioxide in the earth's atmosphere it is necessary to make a shift to low carbon economics. To do this we need to burn less fossil fuel by using energy more efficiently and by switching to renewable energy sources. More information about help to do this can be found on page 30.

But reducing emissions to zero is nearly impossible so as an additional strategy we can also act to mitigate the remainder of our carbon footprint.

Carbon offsetting is the process of reducing a tonne of carbon dioxide emissions in another location to compensate for the emissions we cause in our home, office, or travel activities.

This is done by investing in projects that reduce carbon dioxide emissions. These include energy efficiency projects (low energy light bulbs in developing countries), renewable energy generation (wind power, solar generation),

sequestration (tree planting) and biomass.

These projects often yield additional benefits. In developing countries, they can support communities by encouraging sustainable land management and building wealth creation. Tree planting schemes promote sustainable eco-environments, provide habitat for wildlife and encourage biodiversity.

Research has shown that many people who would consider offsetting are confused by the various ad hoc project-based schemes on offer. The schemes have been attacked for a lack of transparency and inconsistent prices, and there is a worry for the government that the benefits of many of the projects have proved difficult to verify and may be open to abuse.

In January the Department for Environment, Food and Rural Affairs (DEFRA) launched a consultation process for establishing a code of best practice which will help carbon offset providers aspire to standards and increase confidence. In the meantime DEFRA has named four offset providers that meet its proposed guidelines - Pure, Global Cool, Equiclimat and Carbon Offsets.

# PURE

PURE, 'the clean planet trust', is a charity which uses donations to support projects within the United Nations Clean Development Mechanism. This means the projects are properly audited, verified and regulated. The projects generate carbon credits which can be traded to allow polluting companies to meet their obligations with regard to emissions. The trustees of PURE do not trade the credits which, after all, are a licence to pollute, but instead cancel them and put them beyond use. This limits the amount of carbon dioxide that polluting companies are allowed to release and, at the same time, drives up the cost of the remaining carbon credits, automatically penalising polluters and encouraging others to reduce emissions.

Fuel Oil News is working with PURE to develop a scheme that will help fuel oil distributors be part of the movement to use fossil fuel more efficiently, and to facilitate offsetting for the carbon pollution created.❖

[www.puretrust.org.uk](http://www.puretrust.org.uk)

**Carbon offsetting schemes are not without their critics. The schemes can be ineffective, and some environmentalists believe that offsetting sends the wrong signal by allowing people to think they can continue with business as usual: buying themselves a clean conscience by paying someone else to undo the harm they are causing. "In pursuit of reversing the amount of carbon dioxide in the atmosphere the first step should always be to see how we can avoid and reduce emissions," David Miliband, environment secretary said.**

**Visit FON on stand 82 at this month's FPS exhibition to learn more about PURE's carbon offsetting service**

## What lower CO<sub>2</sub> fuels can we offer?

Dr Bob Hall, director of Fuel Additive Science Technologies Limited, writes:

"Reducing our carbon footprint by lowering CO<sub>2</sub> emissions has been the subject of a lot of discussions over the last few months. The debate has been about what we can do to help as organisations or as individuals while still going about our daily business.

"The critical issues for us in the fuel business are trying to figure out which actions are going to produce the highest and fastest impact, and to look for business opportunities before potential additional regulations come into effect. To obtain some appreciation of the impact lower CO<sub>2</sub> fuels could have, we can consider sectors for which CO<sub>2</sub>

emissions data is readily available.

"Over a 25-year lifetime a single tree can absorb between 27.5Kg (maple) and 6.8Kg (pine) of CO<sub>2</sub> [Source: [www.savetheplanet.co.nz](http://www.savetheplanet.co.nz)]. This means that even a 5% reduction in CO<sub>2</sub> emissions would be the equivalent of 60 pine trees per year for a household and 640 for every truck.

Sector	2003 CO <sub>2</sub> Emissions		
	Total (Million Tonnes)	Per Vehicle (Tonnes)	Per Household (Tonnes)
Trucks & buses	46.7	87.1	—
Domestic oil heating	7.6	—	8.2

Sources: Adapted from DTI, DFT & Carbon Trust Data

"There are various practical approaches fuel distributors can use to produce lower CO<sub>2</sub> fuels. Combustion catalysts, ignition improvers and friction modifier fuel additive components have been used to demonstrate statistically significant fuel economy savings in rigorous tests. Fuel consumption reductions are directly proportional to CO<sub>2</sub>

reductions, as during combustion most of the carbon in the fuel is converted into CO<sub>2</sub>.

"The use of bio-components (e.g. biodiesel) can produce a net CO<sub>2</sub> reduction if the original source was from crop, as these absorb CO<sub>2</sub> from the atmosphere when they are grown. There are, however, significant deposit and cold flow issues that can arise when sourcing bio-components either from variable sources or during the processing of different crop batches - even if the components meet quality standards (e.g. BS EN 14214). Selection of the right fuel additive technology can help address these issues."❖