



Carbon Offsetting

With so much publicity recently about climate change, there has been a lot of talk about 'carbon offsetting' and going 'carbon neutral'. Businesses who offer people the chance to pay money to 'offset' their carbon emissions have sprung up everywhere.

What is carbon offsetting?

Carbon offsetting involves a business, organization or individual paying another party to 'offset' their carbon emissions by planting trees or investing the money in renewable energy projects. Offset websites will calculate the carbon emissions from your car, home energy use and air travel and charge you to offset these emissions.

Is it effective in combating climate change?

The unavoidable reality of climate change is that we need to drastically reduce our greenhouse gas emissions, and fast. This involves a combination of individual action to reduce household emissions, government action to shift towards sustainable energy and transport systems, and action from businesses to clean up emissions from industry.

It is for this reason that carbon offset schemes invite some scepticism. They send the message that it is acceptable to carry on with 'business as usual', and pay someone else to 'fix' the problem of your carbon emissions.

Reduce your emissions first!

We advocate doing everything you can to actually reduce your carbon emissions (see separate sustainable living guides on household energy use, passive solar house design, and sustainable shopping, or visit our Environment Challenge website www.up2me.com.au). Of course, there

may be some car and air travel that is unavoidable. Carbon offsetting schemes therefore have a role to play in offsetting emissions we can't reduce.

Which scheme?

Some schemes are based on worthy principles, and others are more questionable. It pays to do a bit of research first.

First, you need to be sure that the offset project is 'additional' to 'business as usual'. Otherwise you will be simply funding a project that, however worthy, will not actually 'cancel' the additional carbon that you are releasing.

Tree-planting

Many offset businesses will offer to plant trees to absorb your carbon. However, there is much debate about how much carbon trees actually absorb. It is thought that 3-4 times as much carbon in forests is actually stored in the soil rather than the vegetation above. Seeing as most tree-planting involves clearing of grasses, this soil gets disturbed and releases carbon. This release can exceed the carbon absorbed by growing trees for at least the first 10 years. Trees can take sixty years to reach maturity, and absorb relatively little carbon in the establishment phase, so carbon saving is being 'deferred' for several decades. We simply don't have that time!

It is also hard to know what the future will be for the trees planted on your behalf. Will they reach maturity? Or will they die from drought, or be burnt in a bushfire, both increasingly frequent events as the planet warms? Will they be replanted at the end of their lifetime?

Also check where the trees *are* being planted. Many offset schemes involve planting in developing countries. This scenario, whereby affluent citizens in the

West take up land in poorer countries to compensate for our fossil fuel consumption, raises serious ethical issues. This land might otherwise be used for food crops, and may lead to the clearing of forests elsewhere.

Does the scheme have other positive effects on the environment? Some tree planting schemes simply involve plantation style 'tree farms', whereas others involve native revegetation of vulnerable sites, having the additional benefits of reducing erosion and salinity.

Renewable Energy

Other offset schemes will put your money towards renewable energy projects such as wind, solar, tidal / wave, geothermal and micro-hydro. Given the debate over the value of tree planting as a carbon sink, these energy schemes appear to be a better option. Not only are you offsetting your emissions but you are helping to fund the energy systems of the future, thereby reducing carbon emissions at source. Check that a scheme is not funding nuclear, 'clean coal' or large-scale hydro projects.

How much does it cost?

There is a lot of scientific uncertainty about the carbon cycle, making exact calculations about the amount of carbon offset by a particular project difficult. For this reason, there is significant variability between different offset websites.

We entered the Tasmanian average annual driving distance (15, 000 kms) by a medium sized car into 5 different offset websites, and got varying estimates as to the amount of carbon produced and the cost of offsetting it. The carbon produced ranged between 3.75 and 4.4 tonnes of CO₂, with different companies charging between \$37.50 - \$69 to offset this.

One return flight between Hobart and

Sydney will produce between 0.67 and 0.76 tonnes of CO₂, and will cost you between \$7 and \$14 to offset. A longer distance flight to Europe will produce between 10.3 – 21.8 tonnes of CO₂ (note that the average Australian household produces 14 tonnes per year). This is the equivalent of driving your car for 4 years! You can expect to pay between \$112 - \$218 to offset this.

Don't just choose the cheapest! We are after all trying to undo the harm we are causing by our travel.

DIY Offsetting

Offset websites are useful for calculating how much carbon your activities are emitting, but then you might choose to avoid the 'middle-man' of the offset company (who exist after all to make money) and invest your money directly in carbon-saving. There are a few options. Some people are choosing to instead spend their money on installing a solar hot water system or other carbon saving technology. Others are choosing to donate to environment groups campaigning on climate change or forest protection (rather than paying to plant trees, you could help to keep trees in the ground!) Another option is to invest through ethical investment schemes in renewable energy companies.

Links

(Sustainable Living Tasmania does not necessarily endorse these offset providers).

Climate Friendly

<http://www.climatefriendly.com.au/>

Australian based, funds renewable energy projects. Used by WWF Australia to offset their travel and events

Greenfleet

<http://www.greenfleet.com.au/index.asp>

Australian based, carries out native revegetation planting

Carbon Neutral

<http://www.carbonneutral.com.au/>

WA based, carries out native revegetation planting

Elementree

<http://www.elementree.com.au/> Australian based, uses revegetation professionals and claims 90% survival rates for trees

Origin Energy

<http://www.originenergy.com.au/carbon/>
Australia's leading Green Energy supplier. Funds a range of offset projects including methane flaring, donations of energy efficient appliances and tree planting

Cheat Neutral

<http://www.cheatneutral.com/>

Finally, you might like to have a look at this excellent spoof site, which highlights the moral issues involved in carbon offsetting

Sources

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Pearce, Fred. 'Tree farms won't halt climate change', New Scientist, October 2002

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