



Guide to Carbon Offsetting

Carbon offset schemes allow individuals and companies to invest in environmental projects around the world in order to balance out their own [carbon footprints](#). The projects are usually based in developing countries and most commonly are designed to reduce future emissions. This might involve rolling out clean energy technologies or purchasing and ripping up carbon credits from an [emissions trading scheme](#). Other schemes work by soaking up CO₂ directly from the air through the planting of trees.

Some people and organisations offset their entire carbon footprint while others aim to neutralise the impact of a specific activity, such as taking a flight. To do this, the holidaymaker or business person visits an offset website, uses the online tools to calculate the emissions of their trip, and then pays the offset company to reduce emissions elsewhere in the world by the same amount – thus making the flight "carbon neutral".

Offset schemes vary widely in terms of the cost, though a fairly typical fee would be around £8/\$12 for each tonne of CO₂ offset. At this price, a typical British family would pay around £45 to neutralise a year's worth of gas and electricity use, while a return flight from London to San Francisco would clock in at around £20 per ticket. Increasingly, many products are also available with carbon neutrality included as part of the price. These range from books about environmental topics through to high-emission cars.

Over the past decade, carbon offsetting has become increasingly popular, but it has also become – for a mixture reasons – increasingly controversial.

Is the whole concept of offsetting a scam?

Traditionally, much of the criticism of offsetting relates to the planting of trees. Some of these concerns are valid, but in truth most of the best-known carbon offset schemes have long since switched from tree planting to clean-energy projects – anything from [distributing efficient cooking stoves](#) through to [capturing methane gas at landfill sites](#). Energy-based projects such as these are designed to make quicker and more permanent savings than planting trees, and, as a bonus, to offer social benefits. Efficient cooking stoves, for instance, can help poor families save money on fuel and improve their household air quality – a very real benefit in many developing countries.

Do offset projects actually deliver the carbon benefits they promise?

The key issue for anyone who does want to offset is whether the scheme you're funding actually achieves the carbon savings promised. This boils down not just to the effectiveness of the project at soaking up CO₂ or avoiding future emissions. Effectiveness is important but not enough. You also need to be sure that the carbon savings are additional to any savings which might have happened anyway.

Take the example of an offset project that distributes low-energy lightbulbs in a developing country, thereby reducing energy consumption over the coming years. The carbon savings would only be classified as additional if the project managers could demonstrate that, for the period in which the carbon savings of the new lightbulbs were being counted, the recipients wouldn't have acquired low-energy bulbs by some other means.



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The problem is that it's almost impossible to prove additionality with absolute certainty, as no one can be sure what will happen in the future, or what would have happened if the project had never existed. For instance, in the case of the lightbulb project, the local government might start distributing low-energy bulbs to help reduce pressure on the electricity grid. If that happened, the bulbs distributed by the offset company would cease to be additional, since the energy savings would have happened even if the offset project had never happened.

Partly because of the difficulty of ensuring additionality, many offset providers guarantee their emissions savings. This way, if the emissions savings don't come through or they turn out to be "non-additional", the provider promises to make up the loss via another project.

As the offset market grows, some offset companies have enough capital to invest in projects speculatively: they fund an offset project and then sell the carbon savings once the cuts have actually been made. This avoids the difficulty of predicting the future – and also avoids the claim that a carbon cut made some years in the future is worth less than a cut made now.

These kinds of guarantees and policies provide some reassurances, but do they mean anything in the real world? Without actually visiting the offset projects ourselves, how can individuals be sure that the projects are functioning as they should?

To try and answer these questions, the voluntary offset market has developed various standards, which are a bit like the certification systems used for fairly traded or organic food. These include the [Voluntary Gold Standard](#) (VGS) and the [Voluntary Carbon Standard](#) (VCS). VGS-certified offsets are audited according to the rules laid out in the Kyoto protocol and must also show social benefits for local communities. The VCS, meanwhile, aims to be just as rigorous but without being as expensive or bureaucratic to set up, thereby allowing a greater range of innovative small-scale projects.

The price of offsetting

Many people are confused by the low prices of carbon offsets. If it's so bad for the environment to fly, can a few pounds really be enough to counteract the impact? The answer is that, at present, there are all kinds of ways to reduce emissions very inexpensively. After all, a single low-energy lightbulb, available for just £1 or so, can over the space of six years save 250kg of CO₂ – equivalent to a short flight. That's not to say that offsetting is necessarily valid, or that plugging in a low-energy lightbulb makes up for flying. The point is simply that the world is full of inexpensive ways to reduce emissions. In theory, if enough people started offsetting, or if governments started acting seriously to tackle global warming, then the price of offsets would gradually rise, as the low-hanging fruit of emissions savings – the easiest and cheapest "quick wins" – would get used up.

Another frequent point of confusion about the cost of offsetting is that different offset companies quote different prices for offsetting the same activity. There are two reasons for this. First, there are various ways of estimating the precise impact on climate change of certain types of activity – including flying, which [affects global temperature in various different ways](#). Second, different types of offset project will inevitably have different costs – especially given that projects may be chosen not just for the CO₂ impacts but for their broader social benefits.

This article is adapted from [The Rough Guide to Green Living](#) by Duncan Clark.