

Guide to Carbon Offsetting

With momentum growing within business to clean up its act on environmental performance many firms are now looking to carbon offsetting schemes as a means of reducing their carbon footprint. The process can however be confusing with an increasing number of formats and providers now available, in an ever expanding market. Understanding the whole process including how it works as well as the pro's and con's of the various schemes will help you choose the right carbon offsetting scheme for your company.

What is carbon offsetting?

The burning of fossil fuels like coal, gas and oil produces carbon dioxide, which is released into the atmosphere and is the main contributor to global warming. Carbon offsetting allows your company to balance the impact of the carbon dioxide you emit, through investment in carbon reduction projects. Carbon is offset by the tonne from the total amount of carbon emissions for which your company is responsible for, known as your carbon footprint.

What is a carbon footprint?

This is calculated by adding up all the carbon that your company emits, from burning fossil fuels both directly and indirectly. Your direct emissions could come from burning various fuels in industrial processes, gas or oil from heating buildings or petrol or simply jet fuel for business travel. Your indirect emissions could come from the electricity you use. Your carbon footprint gives you a quantifiable figure for your carbon emissions, and a base from which to try and reduce it.

How does offsetting work?

Firstly, offset providers will set up projects that either prevent the release of carbon or absorb it from the atmosphere. From these projects carbon credits are produced, which guarantee that for each carbon credit, one tonne of carbon has been absorbed or prevented from release. Next your company buys an amount of credits from the offset provider, depending on your offset requirements.. Finally the offset provider will re-invest the money from your purchase into further offsetting schemes, in order to produce more carbon credits and start the process all over again.

What are the different types of carbon credits available?

The majority of carbon credits are currently broadly split into two different categories, certified emission reductions (CER's) and voluntary emission reductions (VER's).

CERs come from projects that have been implemented under the Kyoto Protocol's Clean Development Mechanism (CDM). Industrialised countries that have signed up to the Kyoto Protocol have agreed to meet certain emission reduction targets and the CDM allows them to achieve some of these cuts through investment in offsetting projects in developing countries that have no targets to meet. The credits produced are mostly for heavy industry polluters, who fall under compliance based schemes but can also be sold to companies that choose to offset voluntarily. The supposed advantage of these carbon credits is that the scheme works within a clear legal framework. Criticisms of CER's are that often the projects are not truly additional as they would have gone ahead anyway, even without the funding and there is often little sustainable development improvements.

VERs are produced outside of the CDM and other legal frameworks, from various projects in developing and industrialised countries. They are aimed at companies that choose to offset voluntarily but want credits that offer more in terms of sustainable development than the schemes CDM offer. Projects tend to be smaller and more community based than those under the CDM. The voluntary market is more loosely regulated at present .

The emergence however, of worldwide independent standards such as the Gold Standard or the Voluntary Carbon Standard is starting to provide more clarity and reliability to VERs. Increasing media and consumer scrutiny is also a key market force in this industry. The main benefits of VERs are that they are considered to be more additional and offer much more in terms of sustainable development, social benefits and innovation. Voluntary offset regulation is still in its infancy, so great care should be taken when selecting credits and the projects they come from.

What types of offsetting projects are there?

Renewable energy projects create heat or power from a variety of sources, including wind, geothermal, solar and biomass. Carbon emission reductions are achieved when energy is produced from renewable sources as no carbon is emitted, compared to the carbon levels emitted from using non renewable sources. Carbon credits produced from renewable energy projects are regarded as high quality because they are guaranteed to offset a measurable amount of carbon, yet these schemes are often expensive and time consuming.

Industrial carbon reductions are modifications made to machinery and equipment that improve efficiency and reduce emissions. The projects can take place in large or small scale industry in almost any location, meaning large amounts of carbon credits are currently produced in this way. Whilst the credits produced do offer guaranteed reductions in carbon, the schemes are not always additional as in many cases they would have gone ahead without funding.

Community based energy projects target community groups, villages or individuals by encouraging them to change their behaviour to reduce energy consumption and lower carbon emissions. The projects usually occur in developing countries and provide improved equipment, tools and resources along with education and advice on best practice. There are often additional social and safety benefits to these schemes, making them very popular, but actual emission reductions are hard to measure.

Biological sequestration projects involve the prevention of deforestation through the set up of protection zones or by planting trees. The aim is for the trees and other vegetation to absorb carbon from the atmosphere, causing a reduction. Projects can occur in areas with tropical or temperate climates and can often provide additional environmental benefits, such as encouraging biodiversity. The actual carbon reductions, however are difficult to measure.

What is additionality and why is it important?

When a carbon offsetting project is said to be additional it means that it would not have taken place without the offset providers funding. Sometimes only a small percentage of a project is funded by the offset provider and the project is likely to have occurred anyway. For example, an industrial firm might install equipment that improves efficiency and lowers carbon emissions. The project may have business benefits for the firm such as lower fuel bills and could only be funded in a small part by an offset provider. This type of scheme is not really additional as the firm would probably have installed the equipment anyway for business reasons, even without the offset providers funding. As a general rule it has been suggested that projects should be at least 50% funded by offset providers to qualify as being additional. With recent negative stories in the press about offsetting, businesses need to be vigilant to ensure their offset provider's schemes are truly additional.

Further information:

http://www.decc.gov.uk/en/content/cms/what_we_do/lc_uk/co2_offsetting/co2_offsetting.aspx