

More and more organizations and individuals are taking action on climate change by going “carbon neutral.”

Families, companies, governments, and even entire cities have all purchased credits to offset their greenhouse gas emissions. Conferences, sporting events (including the Olympics), and weddings are also joining the carbon-neutral movement. High-profile rock bands like the Rolling Stones are now offsetting the greenhouse gas emissions associated with their concerts, and many celebrities are choosing to go carbon neutral in their personal life to help raise awareness about climate change.

Going carbon neutral involves creating an inventory of one’s emissions, reducing these emissions wherever possible, and then purchasing ‘carbon offsets’ to mitigate any emissions that remain. The result is net zero emissions.

Carbon neutrality is a voluntary market mechanism to encourage the reduction of emissions. It is based on the premise that because greenhouse gases have a global impact, an investment to reduce emissions somewhere else – even in another country – has the same climate benefit as if it were made locally. Carbon neutrality fills a gap in existing regulations, as many sources of emissions – including private households, public administrations, most small and medium sized businesses, air travel and public events – are currently not addressed, or only inadequately addressed, by climate policies such as the Kyoto Protocol¹.

Although some argue that purchasing carbon offsets amounts to “buying one’s way out,” one can never reduce or eliminate 100% of one’s emissions. Carbon neutrality offers the opportunity to take responsibility for one’s *entire* climate impact. Also, simply creating an emissions inventory – which is necessary to determine how many offsets need to be purchased – is often an important first step for many organizations in realizing the magnitude of their emissions, and can lead to emission reductions down the road.

Not all carbon offsets are created equally

A carbon offset is an emission-reduction credit generated from another organization’s project that results in less carbon dioxide (or other greenhouse gases) in the atmosphere than would otherwise occur. Carbon offsets are typically measured in tonnes of carbon dioxide equivalents, and are bought and sold through a number of international brokers, retailers and trading platforms.

Many types of activities can generate carbon offsets. Renewable energy projects such as wind farms, or installations of solar, small hydro, geothermal, and biomass energy, can create carbon offsets by displacing fossil fuels. Other types of offsets include those resulting from energy efficiency projects (e.g. cogeneration), methane capture from landfills or livestock, destruction of potent greenhouse gases such as halocarbons, and carbon sequestration (‘sinks’) projects such as reforestation and no-till agriculture that remove carbon dioxide from the atmosphere.

Some carbon offset projects are better than others, however. One issue is permanence. For example, although a forestry sinks project may absorb carbon while it is living, a forest is never permanent and may one day succumb

to disease, fire, or logging – releasing the carbon into the atmosphere once again. Sinks can therefore be only a temporary solution. Also, buying forestry offsets does nothing to lessen society’s dependence on fossil fuels – something that is ultimately needed to address climate change. Finally, there are significant technical problems associated with quantifying the carbon sequestered in trees or soil.

As a result of these types of concerns, an international ‘Gold Standard’ for carbon offsets was developed by the non-governmental community in consultation with governments, scientists, and offset project developers. It provides an independent “best practice” benchmark for emissions offset projects, and helps ensure environmental and social criteria are met. Only renewable energy and energy-efficiency projects currently qualify under the Gold Standard’s criteria.

Benefits of action

Carbon-neutral initiatives allow concerned individuals and organizations to take action on climate change in a tangible and affordable way. Because carbon neutrality is a voluntary initiative, offsets purchased are usually not intended for compliance with existing regulations and can therefore result in climate benefits over and above those required by the Kyoto Protocol. Moreover, since the first priority in any carbon neutral program is to *reduce* one’s own emissions, organizations that embrace carbon neutrality often end up with fewer emissions from their operations (especially once the additional cost of offsets are incorporated into one’s energy costs). Other benefits include:

- **Environmental co-benefits:** Reducing greenhouse gas emissions can also result in less air pollution (burning fossil fuels causes air pollution) and ozone destruction (many GHGs are also ozone depleting substances).
- **Cost savings:** many companies have saved hundreds of millions of dollars from simple energy-efficiency retrofits. And companies that are energy efficient are usually more competitive.
- **Improved risk management:** staying ahead of government emissions regulations means reduced compliance risk, greater investor confidence, and less market risk (e.g. boycotts).

Finally, purchasing high-quality carbon offsets such as those from renewable energy & energy-efficiency projects helps make these projects economically competitive with fossil fuels, and supports the transition to a sustainable energy economy.

¹ Sterk, Wolfgang and Bunse, Maïke. 2004. *Voluntary Compensation of Greenhouse Gas Emissions*. Wuppertal Institute for Climate, Environment, and Energy.



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