

## Carbon Offsets

In the 21st century, achieving 100% carbon neutrality can be a daunting task. Simple activities such as watching television, sending an email message, cooking and making a phone call all produce carbon emissions. Carbon offsets offer an alternative to reducing emissions by enabling individuals and businesses to compensate for their carbon emissions by purchasing credits which offset their emissions output.

Carbon Credits originate from The United Nation's Clean Development Mechanism (under the Kyoto Protocol) that provides a fixed allowance of carbon emission for each country and allows carbon credits to be bought and sold. European Union nations are selling these allowances as carbon credits. EU companies may control (reduce) their CO<sub>2</sub> emissions or purchase credits at approximately \$27 per metric ton CO<sub>2</sub> credit.

The United States has recently shown a greater interest in signing the Kyoto agreement or its successor but until that occurs, the demand for carbon credits in the US is limited, with credits selling for as low as \$1.50 per ton. Note that in anticipation of an active, vibrant carbon credit marketplace, established companies including prominent utilities have begun to offer carbon offset purchase services.

Renewable energy such as wind farms, solar panel installation, small hydro turbines, geothermal energy, and biomass energy can all create carbon offsets by displacing fossil fuels. Other types of offsets include those resulting from energy efficiency projects, methane capture from landfills or livestock, destruction of potent greenhouse gases such as halocarbons, and reforestation projects that absorb carbon dioxide from the atmosphere.

Proponents believe that carbon offsets, together with personal carbon reductions, provide an important solution to global warming. Critics argue that carbon offsets enable those with means to avoid making the hard choices and taking the necessary steps to reduce carbon emissions.