Carbon Offsets

SUMMARY

What is a Carbon Offset?

Carbon Offset is a voluntary program whereby you calculate and assign a cost to your carbon emissions with the aid of an on-line carbon calculator. Carbon offsets are simply credits for emission reductions achieved by projects elsewhere, such as wind farms, solar installations, or energy efficiency projects.

Why?

Global warming is caused by the build up of greenhouse gases in the atmosphere from human activity, primarily the burning of fossil fuels to provide the energy and services we use every day. We burn fossil fuels for electricity (from coal and gas) in our homes and businesses, our cars, flights and to create the food, clothes and other things we buy and consume every day.

The polluting emissions we add to the atmosphere, can be effectively subtract by purchasing 'carbon offsets'.

How does it work?

Purchasing Carbon Offsets enables you to reduce, offset or displace the CO2 emissions you produce. The offset, reduction or displacement of CO2 is done elsewhere, typically where it is more economical to do so. Carbon offsets typically include renewable energy, energy efficiency and reforestation projects. As more and more people are concerned about global warming and seeking to reduce their climate impact, carbon offsets, along with personal carbon reductions, provide an important solution to global warming.

Purchasing high quality carbon offsets from projects such as wind farms also helps support the transition to a sustainable energy economy by providing an additional source of revenue to developers of renewable energy.

Where?

Information for this summary as well as the more detailed attachment was primarily obtained from davidsuzuki.org where you will also find an on-line carbon calculator and a comprehensive source guide.

http://www.davidsuzuki.org

A further source of information was:

http://www.ecobusinesslinks.com

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What is a Carbon Offset?

A “carbon offset” is an emission reduction credit 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 bought and sold through a number of international brokers and online retailers.

For example, wind energy companies often sell carbon offsets. The wind energy company benefits because the carbon offsets it sells make such projects more economically viable. The buyers of the offsets benefit because they can claim that their purchase resulted in new non-polluting energy, which they can use to mitigate their own greenhouse gas emissions. The buyers may also save money as it may be less expensive for them to purchase offsets than to eliminate their own emissions.

Many types of activities can generate carbon offsets. Renewable energy such as the wind farm example above, or installations of solar, small hydro, geothermal, and biomass energy can all create carbon offsets by displacing fossil fuels.

What can I do to go carbon neutral?

It's easy to go carbon neutral. Just follow the steps below:

1) The first and most important step is to **reduce your emissions as much as possible** - for example, by switching off the lights when not in use, turning down the thermostat, driving less, taking vacations closer to home so you don't need to fly as much, etc. Each tonne of emissions that you reduce means one fewer tonne you need to buy offsets to neutralize.

2) **Choose which remaining emissions you wish to offset**. For example, you might want to start with just your air travel, or an event you are organizing such as a wedding. Or you may choose to offset *all* of your major sources of emissions, like air travel, driving, and home electricity use.

3) **Calculate your emissions**. To do this, choose an appropriate online carbon calculator for each of the emissions you have identified in (2). Some carbon calculators are specific for just one emission source like air travel; others will allow you to calculate the emissions from more than one source. Note you can use any of these calculators without making a purchase. It should also be noted that some carbon calculators will give slightly different results; this is because different methodologies may be used (e.g. factoring in all greenhouse gases released during air travel vs. just the CO2). Don't worry too much about this when selecting a calculator; the point is to get some sense of the emissions you're responsible for.

4) Once you know how many tonnes of emissions you produce, you can then **purchase the necessary offsets**. There are many vendors online that sell offsets. There is some variability in price depending on the vendor you choose (and whether it's a charity or a for-profit company), and the type of offsets they sell. But as with any purchase, it's important to consider the quality of the offsets you support, rather than simply looking for the cheapest option.

5) **Review your strategy annually**. This will include finding ways to reduce your emissions even more. Also, if you started with just one emission source (e.g. air travel), you may choose to broaden your approach and look at other emissions you generate.

What can I do at home?

- Reduce your home heating and electricity use. A more energy-efficient home will lower your utility bills and reduce the emissions that cause climate change. Find out how you can increase energy efficiency in your home through the EnerGuide for Houses program.

- Choose energy-efficient appliances. New refrigerators, for example, use 40 per cent less energy than models made just 10 years ago. Find out more

- Check the Canadian government's Auto Smart ratings for the next car you intend to buy to make sure it's fuel efficient and low polluting. A typical SUV uses almost twice the fuel – and releases nearly twice the emissions – of a modern station wagon, although both seat the same number of passengers. Visit the Canadian Annual Office of Energy Efficiency EnerGuide Awards to find the most fuel-efficient vehicles.

- Walk, bike, carpool or take transit to get to one of your regular destinations each week.

- Learn about the impacts of air travel and consider vacationing close to home.

- If you are moving, choose a home within a 30-minute bike, walk or transit ride from your daily destinations. A convenient place to live reduces the amount you drive, which means you'll lower your greenhouse gas emissions and other pollutants.

- Take care of your trash. Composting all organic waste – and recycling paper, cardboard, cans and bottles – will help reduce the greenhouse gas emissions associated with landfills.

- Eat wisely. Choose foods that are local, organic and low on the food chain whenever possible. Make the most of seasonal foods.

- Learn about how to plan a green, low-carbon wedding.

- Take the David Suzuki Foundation's Nature Challenge to learn more about other ways you can help protect the environment.

Did you know?

- Standard light bulbs give off 90 per cent of their energy as heat. New compact fluorescent "spiral" bulbs are 75 per cent more efficient and fit in standard sockets.

- If you combined all the "heat leaks" in an average Canadian home, you would have a hole the size of a basketball! Proper weather stripping and caulking of doors and windows can reduce heating bills by 25 per cent.

- A typical car produces three times its weight in carbon dioxide emissions – a major greenhouse gas. Light cars produce fewer emissions and cost less. Annual fuel costs average $648 for a new Volkswagen Jetta and $2,067 for a Ford Expedition 4x4.

- Refrigerators are an energy-hogging home appliance. Replacing a 10-year-old refrigerator with a new EnergyStar-approved model would save enough energy to light your home for more than three months.