

Carbon offsets review and compare

Carbon offsets pay for projects that reduce the amount of CO₂ in the atmosphere. Are they all equal?

Updated: 16 Sep 2008 |

01 .Introduction

What are carbon offsets?

Carbon offsets are sold as a way for consumers and businesses to reduce their environmental impact. By buying an offset, you pay to support projects that remove greenhouse gases (GHGs) like carbon dioxide from the atmosphere, or stop them getting there in the first place. When too many GHGs build up in the atmosphere, the result is climate change.



Unregulated market

A year ago there were about 20 Australian companies offering carbon offsets; now there's close to 60. But the market is mostly unregulated and parts of it have been likened to the 'wild west'.

The Australian Competition and Consumer Commission (ACCC) recently raised concerns that, "Consumers may be facing misleading and deceptive conduct associated with this emerging market." And a 2007 report by the University of Sydney found that the term 'carbon neutral' is being exploited for PR and financial purposes.

The concern is that well intentioned consumers, trying to do the right thing, are being taken for a ride.

Carbon Offset Watch

Carbon offsetting can work, but the market is susceptible to consumer rip-offs. So what's the best way to offset your carbon emissions?

CHOICE joined with the Institute for Sustainable Futures (ISF) at the University of Technology, Sydney, and the Total Environment Centre (TEC) to form [Carbon Offset Watch](#) and find out. We tell you where you can find offsets that are likely to result in real greenhouse gas emission reductions – if the Federal Government makes the key changes we're looking for.

Where do you start?

A company might say it'll offset emissions you're responsible for and gladly take your money, but how do you know the emissions will really be offset?

The obvious place to start is to check that the offsets the company is selling have been accredited by an independent standards scheme. The problem is there are many schemes in the market. Some are government schemes; others are from for-profit companies, non-profit NGOs and organisations with charitable status, both from Australia and overseas.

Our government standards aren't necessarily the best — even offsets accredited under federal and state government schemes aren't [additional](#) at present. And the government schemes also fall short of best practice on other grounds too. Nevertheless, offsets that are independently accredited (whether by a government or other scheme) are still a much better bet than offsets that have no third-party accreditation whatsoever.

Check the rankings

Carbon Offset Watch ranked carbon offset retailers, taking into account the offsets they sell and the accreditation schemes the offsets are certified by. [Check the ratings](#) before making your decision.

02. Ratings

Carbon offset offers

Retailer (in order of Carbon Offset Watch ranking)	Accreditation scheme*	Price (\$ per tonne of carbon)*	Main offset types*	Project locations*	Organisation type*
Outstanding					
Climate Friendly climatefriendly.com	CDM, GS, VCS, GreenPower, VER+	\$40 (GS), \$25 (VCS)	RE	Australia, China, India, New Zealand, Turkey	For profit
Cleaner Climate cleanerclimate.com.au	CDM, VCS (B)	\$25	EE, M, RE	China, India	For profit
Climate Positive (A) climatepositive.org	GF, GGAS, VCS, RECs	\$25	M, RE	Australia, China	Not for profit
Southern Metropolitan Regional Council (A) smrc.com.au	GF	NA	M	Australia	Local government authority
Carbon Reduction Institute noco2.com.au	GF, VER+	\$18	EE, RE	Various including Australia, New Zealand	For profit
Good					
Fieldforce Services fieldforce.net.au	GGAS, GF	\$8.75 to \$20	EE	Australia	For profit
Neco neco.com.au	GF, GGAS, RECs	\$15 to \$19	EE, F, RE	Various including Australia	For profit
Coolplanet coolplanet.com.au	GGAS, GF, CDM, VER+, RECs	\$14 to \$20	EE, M, RE	Various including Australia, Brazil, North America, Russia	For profit
Australian CO2 Exchange trading as Ark Climate arkclimate.com.au	GGAS, RECs, VCS	\$9 to \$52	F, RE	Various including Australia	For profit
Carbon Planet (A) (B) (C) (D) carbonplanet.com.au	GGAS, GS, GF, RECs, VER+	\$25	EE, RE, F	Various including Australia, New Zealand	For profit

Green Pass Australia greenpass.com.au	GGAS	\$15 to \$20	M	Australia	For profit
Low Energy Supplies and Services (LESS) (A) lowenergy.com.au	GGAS, GF	\$6 to \$20	EE	Australia	For profit
Greenpig greenpig.com.au	GGAS, GF (C)	\$18	M	Australia	For profit
AGL Energy agl.com.au	GGAS, GF	\$9 to \$11.50	M	Australia	For profit
Enviro Friendly Products (A) enviro-friendly.com	GGAS	\$19.95	EE, F	Australia	For profit
Origin Energy Limited (A) originenergy.com.au	GS, RECs, VCS, VER+, Origin accredited offsets (verified by a third party)	\$9 to \$25	EE, F, M, RE	Various including Australia	For profit
Landcare CarbonSMART carbonsmart.com.au	GGAS	\$25	F	Various including Australia	Not for profit
Adequate					
CO2 Australia co2australia.com.au	GGAS, GF	\$16	F	Australia	For profit
Cozero cozero.com.au	CDM, VCS (D)	\$15.95	RE	China	For profit
Global Carbon Exchange (A) globalcarbonexchange.com	CDM, GGAS, GF, VCS	\$25 (E)	EE, F, RE	Australia and various developing countries	For profit

Source: Rankings by [Carbon Offset Watch](#) based on offsets available in the six months to April 2008.

* Other information, including the accreditation schemes, was confirmed with the retailers by CHOICE in August/September 2008, and may be different to the information used for Carbon Offset Watch rankings. Prices fluctuate and often depend on the volume and type of offsets bought. CHOICE asked retailers to confirm their prices in late August 2008. NA means a price was not available.

Table notes

- (A) These companies achieved the same score as the company immediately above them in the table.
- (B) The company can supply Gold Standard, but says it's usually too expensive for voluntary offsets.
- (C) VERs are available upon request, including offsets from EE, M and RE.
- (D) The company also sells GreenPower, we only give the price for other carbon offsets.
- (E) Minimum purchase is five tonnes.

Using the table

Outstanding Scored well in most categories and sold a high proportion of offsets that are accredited against high scoring standards, such as the Clean Development Mechanism, Gold Standard, VCS and Greenhouse Friendly. These retailers also sold a high proportion of offsets from projects that change or prevent the underlying activities that cause GHGs, such as energy efficiency, renewable energy and diverting waste from landfill. There's a very high likelihood that purchased offsets will deliver real additional greenhouse gas reductions (assuming the changes we want to national regulations are made).

Good Scored well in most categories, but in the assessment period sold a proportion of offsets that are accredited under lower scoring schemes and standards (GGAS and MRET). High likelihood that purchased offsets will deliver real additional greenhouse gas reductions.

Adequate Retailers in this category scored well in most categories, but during the assessment period sold a high proportion of offsets that are accredited under lower scoring standards such as GGAS and MRET, and/or sold a high proportion of offsets that don't prevent the underlying activities that cause GHG emissions. For example, tree-planting offsets.

Accreditation schemes

- CDM Clean Development Mechanism.
- GS Gold Standard.
- VCS Voluntary Carbon Standard.
- GGAS Greenhouse Gas Abatement Scheme.
- GF Greenhouse Friendly.
- VER+ Verified Emission Reductions.
- RECs Renewable energy certificates.

Offset types

- EE Energy efficiency, including demand-side abatement.
- F Forestry.
- M Methane capture.
- RE Renewable energy.

03. Tips for buying offsets

What to consider when purchasing offsets

- Before buying offsets, reduce your greenhouse gas emissions. For example, find out how to use less energy in your home.
- Only buy offsets from a retailer that provides detailed information about its products, services and the projects used to generate offsets. Request further information if necessary.
- Choose a retailer that helps you estimate your carbon footprint and explains how the footprint is calculated.
- Choose offsets that are independently accredited by a recognised scheme. Carbon Offset Watch considers The Gold Standard and Clean Development Mechanism to be the best indicators of high-quality offsets.
- Offsets from projects that change or prevent the underlying activities that create greenhouse gases, such as energy efficiency, renewable energy, avoided deforestation and diverting waste from landfill, are better ways to combat climate change in the long term. Others, such as tree-planting schemes, aren't as good for carbon offsetting but can have separate environmental benefits, such as contributing to biodiversity.
- Get documentary evidence of your offset purchase. Ensure that the retailer guarantees to 'retire' the offset from the market on your behalf, or transfers ownership of the offset to you so that you can retire it yourself. This means the offset you bought can't be sold again.



Policy point: offsets should be 'additional'

Perhaps the most important attribute of a carbon offset that you purchase as an individual is that it's additional — that is, the carbon reduction wouldn't have happened if you hadn't bought the offset. Otherwise there's no real extra reduction in emissions and the money you spent didn't make a real difference.

At present, no carbon offsets created from projects in Australia are additional, because they're all counted towards our legal obligation to reduce emissions under the Kyoto agreement. So when you buy these offsets voluntarily, you're paying for emission reductions that would have happened anyway. Effectively, individuals and businesses that buy voluntary offsets are subsidising those who don't, and helping Australia to meet its mandatory targets.

CHOICE, ISF and TEC want the Federal Government to prevent this double counting as soon as possible, by simply amending the accounting for carbon offsets, so that the offsets consumers and businesses voluntarily buy are additional to Australia's Kyoto obligations. The changes should be applied retrospectively, so that any offsets sold since Australia ratified Kyoto aren't counted towards our mandatory greenhouse gas reductions.

04. Types of carbon offsets

How carbon offsetting works

Carbon offsetting is where consumers voluntarily pay to reduce or remove greenhouse gas emissions from the atmosphere. This is to counteract or compensate for pollution they've caused. In Australia, buying offsets is voluntary (you don't have to).

Here's how this voluntary carbon market works:

- Companies set up or finance projects that reduce greenhouse emissions.
- When emissions are reduced, carbon offset credits or certificates are created.
- Consumers can buy these credits or certificates from retailers, usually through a website.
- The cost of one tonne of carbon offset can be anything from \$6 to \$50.

Offset examples

So how can emissions be reduced or avoided? Some of the main types of offset projects, which are situated in Australia and overseas (often in developing countries), are:

- **Renewable energy** 'Clean' energy is generated from sources like water, wind and sun. This means dirty coal-based energy production is avoided, so there are fewer carbon emissions.
- **Trees/forestry projects** Trees suck up ('sequester') carbon from the atmosphere and store it. For the purposes of carbon offsets, projects are set up to plant new trees (to remove and store atmospheric carbon), or to avoid deforestation (to stop existing stores of carbon from being released into the atmosphere).
- **Energy efficiency projects** Perhaps the most effective way to reduce emissions is to use less energy, and use it more efficiently. For the purposes of offsets, a company might set up projects that increase energy efficiency (for example, by installing free energy-efficient light bulbs in homes, while selling credit for the resulting emission reduction to you as a carbon offset).
- **Methane flaring** Waste that decomposes in landfills, and agricultural processes, create methane gas. Capturing and burning this gas enables generation of energy, and prevents methane escaping into the atmosphere, where it would produce 21 times more global warming than the same amount of carbon dioxide.
- **Waste diversion** Waste can be prevented from going to landfill, instead being used for other purposes and preventing the release of methane. For example, organic waste can be processed and used for compost, without releasing methane.

05. How retailers were scored

Carbon Offset Watch's scoring awarded points in the categories below. The [ratings table](#) shows the results.

Project type (7.5%)

The contribution to long-term sustainability of the type of projects used for offsets was assessed. Points were awarded to projects that change or prevent the underlying activities that create GHGs. Energy efficiency, renewable energy and the diversion of waste from landfill were awarded points. Projects that prevent deforestation would have got points too, but no Carbon Offset Watch participants sold that type of offset. Methane flaring, afforestation and reforestation projects were not awarded points.

Retailer's service (19.5%)

This looked at whether retailers encouraged customers to reduce their emissions before buying offsets, provide sufficient information and accurately estimate the customer's carbon footprint.

Accreditation or certification scheme (73%)

By far the biggest factor in determining retailers' scores was the accreditation or certification scheme their offsets comply with. Carbon Offset Watch evaluated and ranked the schemes, taking into account:

- How offset projects are validated and approved (19%).
- Methodologies used to calculate emissions and offsets (7.5%).
- Ensuring that the emission reduction wouldn't have happened if you hadn't bought the offset – that is, that the emission reduction or offset is truly additional (7.5%).
- Independent verification that the carbon reductions happen (7.5%).
- Independence of the accreditation scheme from the offset retailer (7.5%).
- Publicly accessible registry of offsets (7.5%).
- Verification and assurance that the offset can't be double-sold; it should be 'retired' from the market when you buy it (9%).
- Timing of emission reductions (7.5%). Immediate carbon reductions are best.
- Permanence (maximum 7.5% penalty). This offset must be permanent and irreversible. Tree-planting schemes were penalised (there can be uncertainty about the permanence of carbon reductions from trees, which could be destroyed or die, releasing the stored carbon back into the atmosphere).

For a detailed explanation of how the schemes were ranked, go to [Carbon Offset Watch](#)

Dodgy calculations

As part of the research for Carbon Offset Watch, we checked the emissions calculated by retailers' websites for one passenger's return flights from Sydney to Melbourne, and Sydney to London. There's no standard or consensus for the most accurate ways to estimate customer carbon emissions; the results were compared with two benchmark calculators to illustrate the range.

We found that retailers' calculators differed from the benchmarks by up to 80%. That is, some retailers' websites, which consumers are using to estimate their carbon footprint and the amount of offsets they purchase, are giving estimates that vary greatly from the benchmarks used. Most calculators underestimate, perhaps because they don't factor the full lifecycle emissions (which take into account all emissions involved in the plane's manufacture, not just its fuel use).

06. Accreditation standards

The carbon offset world is awash with confusing jargon and acronyms. Here's a brief description of the accreditation standards, in order of their Carbon Offset Watch score.

- Clean Development Mechanism (CDM) (100%) A standard administered by the United Nations Framework Convention on Climate Change. It allows accredited projects to generate credits that can be sold to meet obligations under the Kyoto protocol (for example, developed countries can meet their Kyoto targets by financing projects that reduce emissions in developing countries). But these offsets are also sold in the voluntary market to consumers.
- The Gold Standard (100%) Developed by environmental group WWF with other NGOs, governments and industry groups. It focuses on energy efficiency and renewable energy offsets, excluding forestry and land use projects.
- Greenhouse Friendly (95%) The Australian government scheme for voluntary carbon offsets, administered by the federal Department of Climate Change.
- VER+ (95%) A carbon offset standard that focuses on greenhouse gas reductions, created by a German company, TÜV SÜD.
- Voluntary Carbon Standard (VCS) (95%) Founded by not-for-profit organisation The Climate Group, the International Emissions Trading Association (IETA) and the World Business Council for Sustainable Development (WBCSD). Credits created under VCS are traded in the voluntary market as Voluntary Carbon Units (VCUs).
- Greenhouse Gas Abatement Scheme (GGAS) (95%) A mandatory government scheme in ACT and NSW which aims to reduce the emissions from electricity generation and use. The resulting Greenhouse Gas Abatement Credits (GGACs) created can be sold as offsets on the voluntary market.

- **Mandatory Renewable Energy Target (MRET) Certificates (70%)** MRET is the Australian government's target for renewable energy generation. In 2007 the government committed to generating 20% of Australia's energy from renewable sources, by the year 2020. Plans to meet the new target are currently the subject of a public consultation. Electricity retailers must contribute to this target by supporting renewable energy through the purchase of Renewable Energy Certificates (RECs), which are created when clean energy is produced. Households with solar photovoltaic (PV) and hot-water systems can also create and sell the RECs they get when they buy these systems – see [Solar hot water systems](#) for more.

07. Unaccredited offsets

Some offset providers that didn't complete the Carbon Offset Watch survey sell offsets that aren't accredited or certified by an independent scheme. Therefore, they're not recommended. Without third-party accreditation and certification, there isn't enough evidence or independent verification that your money will be used to deliver real additional greenhouse gas reductions.

We did some additional research, separate to Carbon Offset Watch, into some of the unaccredited offsets on the market. Many of the companies selling unaccredited offsets are selling tree-planting or forestry offsets, ranging in price from \$12 to \$24 per tonne of CO₂ (that's within the range of prices for accredited offsets in the [table](#)).

While planting trees has environmental benefits other than sequestering carbon (for example, contributing to biodiversity), if you want to help combat climate changes, CO Watch considers tree-planting projects less beneficial in the long-term and riskier than renewable energy, energy efficiency and the prevention of waste going to landfill. Some of the companies selling unaccredited offsets are:

- **Canopy**, which has applied for accreditation of its offsets under Greenhouse Friendly. It can also sell other companies' Greenhouse Friendly accredited offsets.
- **Carbon Conscious**, which lodged its application for Greenhouse Friendly accredited offsets in July 2008 and has yet to sell any carbon offsets to consumers.
- **Carbon Neutral (Australia)**. Donations are tax deductible, as the organisation has not-for-profit charitable status. It says each \$3 donation results in one tree being planted. Accredited offsets (VERs+) can also be purchased from the company.
- **Elementree Inc.** Another registered charity (payments for offsets are considered tax-deductible donations). However, no offsets have been available since 2007. They'll be available again if / when offsets from a related company, Elementree Ltd, achieve Greenhouse Friendly certification.
- **Greenhouse Balanced**. It says Greenhouse Friendly accreditation would cost between \$50,000 and \$100,000, which would be passed on to consumers in higher offset prices. Greenhouse Balanced calls its offsets 'Ecological credits', but its partner, Bendigo Bank, sells them as 'carbon offsets'.

08. About carbon offset watch

Carbon Offset (CO) Watch is a joint project between the Institute for Sustainable Futures, Total Environment Centre and CHOICE. It aims to provide consumers with independent information to help buying decisions and to encourage the carbon offset industry to improve its standards and offers.

This article draws on the findings of CO Watch. The detailed CO Watch survey was sent to 57 providers. 20 companies (35%) responded. CO Watch is unable to recommend the non-respondents due to a lack of information. Additional research by CHOICE, separate from the Carbon Offset Watch assessment, found that some of the non-respondents sell offsets that aren't accredited.

The full report and ranking methodology is available at [Carbon Offset Watch](#). CHOICE thanks the authors of Carbon Offset Watch, Alison Atherton and Chris Riedy of the Institute for Sustainable Futures.

More information

For EPA Victoria and RMIT's independent directory of carbon offset providers — go to [Carbon Offset Guide](#).

On a lighter note

If you're feeling bad about cheating on your partner, you can assuage your guilt by paying some other scoundrel to stay faithful.

"Cheatneutral.com offsets your cheating by funding someone else to be faithful and NOT cheat. This neutralises heartbreak, pain and jealousy in the atmosphere, and leaves you with a clear conscience." Go to [Cheat Neutral](#) for an amusing parody of carbon offsetting.