



**Local Government Association of SA  
Briefing Paper - Carbon Offsets and Local  
Government**

**29 October 2010**

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## Terms and Definitions

**Additionality:** A requirement that a project or activity provide abatement that is additional to any that would occur in the absence of the project or activity, and that is additional to abatement that would occur anyway to meet Australia's Carbon Pollution Reduction Scheme cap or International Target.

**Annex I countries:** Countries listed in Annex I to the United Nations Framework Convention on Climate Change (UNFCCC), including all developed (OECD) countries and the countries in transition in central and Eastern Europe (including Russia and Ukraine). In the context of the Kyoto Protocol, 'Annex I country' is used to refer to a party included in Annex I to the UNFCCC with a commitment inscribed in Annex B to the Kyoto Protocol.

**Australian Emissions Unit (AEU):** An emissions unit issued under the proposed Carbon Pollution Reduction Scheme (CPRS), also referred to as a 'carbon pollution permit'.

**Carbon dioxide equivalence (CO<sub>2</sub>-e):** A standard measure that takes account of the different global warming potentials of greenhouse gases and expresses the cumulative effect in a common unit.

**Carbon footprint:** A measure of the carbon dioxide equivalent emissions attributable to an activity commonly used at an individual, household, organisation or product level.

**Carbon neutrality:** Commonly refers to a situation where the net emissions associated with a product or an organisation's activities are equal to zero through the acquisition and retirement of carbon offsets that meet additionality criteria.

**Carbon offset:** Represents a reduction in greenhouse gases, or enhancement of greenhouse gas removal from the atmosphere by sinks, relative to a business-as-usual baseline. Carbon offsets are tradeable and often used to negate (or offset) all or part of another entity's emissions.

**Carbon sink:** A natural or manmade reservoir that accumulates and stores carbon dioxide for an indefinite period.

**Certified Emission Reduction (CER):** A Kyoto unit corresponding to one metric tonne of carbon dioxide equivalent emissions, and issued for verified emission reductions or removals achieved by projects approved under the Clean Development Mechanism (CDM). CDM projects undertaking afforestation and reforestation activities issue temporary and long term units known as tCERs and ICERs, which must be replaced after a specified period.

**Clean Development Mechanism (CDM):** The CDM allows greenhouse gas emission reduction projects to take place in countries that have no emission targets under the Kyoto Protocol, yet are signatories. The CDM is defined in Article 12 of the Kyoto Protocol.

**Emissions Reduction Unit (ERU):** A Kyoto unit corresponding to one metric tonne of carbon dioxide equivalent emissions reduced or sequestered arising from a Joint Implementation (defined in Article 6 of the Kyoto Protocol) project.

**Greenhouse gases:** The atmospheric gases responsible for causing global warming and climate change. The six Kyoto Protocol classes of greenhouse gases are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydro-fluorocarbons (HFCs), per-fluorocarbons (PFCs) and sulphur hexafluoride (SF<sub>6</sub>).

**International target:** The greenhouse gas emissions target that Australia has committed to meet by 2012 under the Kyoto Protocol and the target agreed for Australia in any replacement to the Kyoto Protocol.

**Joint Implementation (JI):** A market-based implementation mechanism defined in Article 6 of the Kyoto Protocol, allowing Annex I countries or companies from these countries to implement projects jointly that limit or reduce emissions or enhance sinks, and to share the ERUs.

**Kyoto Protocol:** An international treaty created under the UNFCCC in 1997. It entered into force in 2005. Among other things, the Kyoto Protocol sets binding targets for the reduction of greenhouse gas emissions by developed countries and countries in transition. It includes individual emission reduction targets for Annex I countries to be met within the first commitment period of 2008-12.

**Kyoto unit:** An emissions unit recognised for compliance under the Kyoto Protocol. Kyoto units include Assigned Amount Units (AAUs), CERs (including tCERs and ICERs), ERUs and Removal Units (RMUs).

**Life cycle assessment:** The compilation and evaluation of the inputs, outputs and the potential environmental impacts of a product system throughout its life cycle.

**National Carbon Offset Standard (NCOS):** Government Standard providing guidance on what constitutes a genuine, additional voluntary offset in the context of the Carbon Pollution Reduction Scheme (CPRS). It sets a voluntary minimum standard for: carbon offset eligibility and generation; carbon footprint calculation; achieving carbon neutrality; and audit and verification of carbon claims.

**National Greenhouse and Energy Reporting (NGER) System:** The national reporting framework for information related to the greenhouse gas emissions, and energy production and use of corporations operating in Australia. The framework is established under Commonwealth legislation, which makes registration and reporting mandatory for corporations whose greenhouse gas emissions or energy production or use meet certain thresholds.

**Offset:** See carbon offset.

**Permanence:** With regard to offsets, permanence requires the generation of offsets to have actually occurred and the carbon stored or sequestered not to be released into the atmosphere in the future.

**Removal Unit (RMU):** A Kyoto unit corresponding to one metric tonne of carbon dioxide equivalent emissions sequestered and issued for removals of carbon dioxide from the atmosphere by eligible land use, land-use change and forestry activities.

**Scope 1 emissions:** The release of greenhouse gas into the atmosphere as a direct result of activities at a Facility.

**Scope 2 emissions:** The release of greenhouse gas as a result of electricity generation, heating, cooling or steam that is consumed by a Facility.

**Scope 3 emissions:** The release of greenhouse gas into the atmosphere that is generated in the wider economy as a consequence of a facility's activities but that are physically produced by another Facility.

**Sequestration:** The removal of atmospheric carbon dioxide, either through biological processes (for example, photosynthesis in plants and trees), or geological processes (for example, storage of carbon dioxide in underground reservoirs).

**Sink:** See carbon sink.

**United Nations Framework Convention on Climate Change (UNFCCC):** An international treaty, adopted in 1992, aimed at achieving the stabilisation of greenhouse gas concentrations in

the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.

**Voluntary Carbon Unit (VCU):** A unit corresponding to one metric tonne of carbon dioxide equivalent emissions reduced, certified and issued under the Voluntary Carbon Standard.

**Voluntary Emissions Reduction (VER):** Emission reduction units that have been generated according to defined voluntary standards.

## Forward

Carbon offsetting is an increasingly popular means of taking climate change action. By paying someone else to reduce GHG emissions elsewhere, the purchaser of the carbon offset aims to compensate for – or ‘offset’ – their own emissions. Individuals seek to offset their travel emissions and some companies and councils claim ‘carbon neutrality’ by buying, sometimes large quantities, of carbon offsets to neutralise their carbon footprint or that of their products.

In Australia, we have witnessed significant development of national standards related to what constitutes a genuine carbon offset and the means to confidently make public claims about carbon performance, particularly in relation to ‘carbon neutrality’ under the National Carbon Offset Standard (NCOS). NCOS exists to provide consumer confidence in the eligibility of carbon offset claims and, as such, should be well understood by any party intending to measure all or part thereof GHG’s, manage GHG’s and offset GHG’s.

Broadly carbon offsets exist in voluntary and compliance based markets. Best practice guidance for carbon offset generation and use (as detailed under Section 3.2.1 of the NCOS) requires that offsets be:

- 1. Additional** - Greenhouse gas emissions reductions generated by the project must be beyond what would be required to meet regulatory obligations under any Australian laws or regulations or undertaken as part of ‘business-as-usual’ investment. The level of additional emissions reductions generated by an offset project is the difference between the emissions associated with the project (‘project emissions’) and emissions under a business-as-usual scenario. The administrative framework supporting the NCOS will provide further guidance on how to apply additionality principles.
- 2. Permanent** - Greenhouse gas emission reductions must be permanent. In the case of sinks, this requires that the carbon stored is sequestered and will not be released into the atmosphere in the future.
- 3. Measurable** - Methodologies used to quantify the amount of emissions reductions generated must be robust and based on a defensible scientific method. Methodologies must clearly define a boundary for the emissions reduction project, emissions sources, emissions factors and activity levels. They must specify the calculation of a baseline emissions forecast reflecting business-as-usual and the means of comparing it to expected emissions from the project to determine the carbon offsets generated. The methodology must specify the uncertainty associated with the calculation of offsets generated. It should also specify the risks associated with achieving the forecast abatement and how they will be managed.
- 4. Transparent** - Consumers and other interested stakeholders must be able to examine information on domestic offset projects, including the applied methodology, emissions calculations and project monitoring arrangements, by accessing a publicly available website. The information provided should clarify data sources, exclusions, inclusions and assumptions.

- 5. Independently audited** - Eligibility of methodologies, offset projects and greenhouse gas emissions reductions generated must be audited by an independent third party. Existence of any conflict of interest should be determined.
- 6. Registered** - Emissions reduction units generated must be registered and tracked in a publicly transparent registry.

This discussion paper summarises the key considerations for carbon offsetting initiatives and provides an overview and guide to the most important currently available voluntary carbon offset standards using NCOS as the benchmark.

# 1. Introduction

Climate change is increasingly becoming an issue of critical importance to Local Government. Many Councils are seeking to manage their exposure to climate risks and realise the growing opportunities through developing a strategic carbon management strategy. The idea of purchasing carbon offsets equivalent to the residual net emissions from an activity, service or product in order to achieve 'carbon neutrality' is gaining favour. However, the nature of the carbon market (both here in Australia and internationally) is complex and there is a large degree of uncertainty about carbon offsets. This uncertainty has arguably arisen from the following factors:

- the delay of the proposed Australian Carbon Pollution Reduction Scheme (CPRS);
- several alternative national policy proposals;
- the closure of the Greenhouse Friendly™ initiative; and
- the release of the new National Carbon Offset Standard.

The Local Government Association of SA (LGA) has commissioned the production of this paper to assist Local Government Officers in understanding the carbon offset market and issues associated with the selection and purchase of offsets to achieve certain goals.

## 2. Carbon Offsets – Markets and Background

On a global scale, the carbon offset market can be divided into two distinct sectors:

- compliance markets, where offsets can be purchased in addition to carbon credits<sup>1</sup> to assist organisations in meeting their quota<sup>2</sup> set by the relevant compliance scheme; and
- voluntary markets in which organisations and individuals can take action to offset their emissions over and above any regulatory requirement.

### The Compliance Market

Regulated markets for trading greenhouse gas credits have been developed by Governments internationally in order to assist targets or requirements for businesses in specific sectors to reduce greenhouse gases. Examples include the European Emissions Trading Scheme (EU ETS), New South Wales Greenhouse Gas Reduction Scheme, U.S. Northeast Regional Greenhouse Gas Initiative, and the New Zealand Emissions Trading Scheme (NZ ETS)<sup>3</sup>. Compliance schemes are governed by rules on a range of issues including:

- monitoring and verification of emission reductions;
- trading of GHG credits with other businesses in the scheme; and
- generation and use of offsets from outside of the scheme

Participation in such schemes is often legislated giving businesses an obligation to achieve required targets with the threat of penalties for non-performance. However, voluntary players are usually able to opt in to schemes or participate in other ways.

#### Box 1: The NSW Greenhouse Gas Reduction Scheme

The NSW Greenhouse Gas Reduction Scheme (GGAS) commenced on 1 January 2003. It is one of the first mandatory greenhouse gas emissions trading schemes in the world. GGAS aims to reduce greenhouse gas emissions associated with the production and use of electricity. It achieves this by using project-based activities to offset the production of greenhouse gas emissions.

GGAS establishes annual state-wide greenhouse gas reduction targets, and then requires individual electricity retailers and certain other parties who buy or sell electricity in NSW to meet mandatory benchmarks based on the size of their share of the electricity market. Benchmark participants achieve this by surrendering abatement certificates created from project-based emission reduction activities. The surrender of these certificates effectively offsets a portion of the greenhouse gas emissions associated with their electricity purchases. If these parties, known as benchmark participants, fail to meet their benchmarks, then a penalty is assigned. Monitoring the performance of benchmark participants is undertaken by the Independent Pricing and Regulatory Tribunal of NSW

<sup>1</sup> A carbon credit is a generic term for any tradable certificate or permit representing the right to emit one tonne of carbon dioxide or carbon dioxide equivalent (CO<sub>2</sub>-e).

<sup>2</sup> Under the Kyoto Protocol, the 'caps' or quotas for Greenhouse gases for the developed Annex 1 countries are known as Assigned Amounts and are listed in Annex B. The quantity of the initial assigned amount is denominated in individual units, called Assigned amount units (AAUs), each of which represents an allowance to emit one metric tonne of carbon dioxide equivalent, and these are entered into the country's national registry.

<sup>3</sup> EPA Victoria, 'What is the difference between regulatory and voluntary carbon offset markets?' (2010) <http://www.epa.vic.gov.au/climate-change/carbon-offsets/regulatory-voluntary.asp>

(IPART) in its role as Compliance Regulator.

Assessing abatement projects, accrediting parties to undertake eligible projects and then create certificates, and monitoring compliance with GGAS is the responsibility of the Scheme Administrator, currently IPART. The Scheme Administrator also manages the Greenhouse Registry which records the registration and transfer of certificates created from abatement projects.

Reproduced from Government of NSW, 'Greenhouse Gas Reduction Scheme' (2010) [www.greenhousegas.nsw.gov.au](http://www.greenhousegas.nsw.gov.au)

## The Kyoto Protocol

The evolution of compliance markets has largely been in response to national commitments to emissions reductions under the Kyoto Protocol. The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change (UNFCCC). Its primary feature is that it sets binding GHG emissions reduction targets for signatories, a number of industrialised countries and the European community, amounting to an average of five per cent reduction against a 1990 baseline. This reduction is to occur over the five-year period 2008-2012. Under the Protocol, countries must meet their targets primarily through national measure. However, the Kyoto Protocol offers them additional means of meeting their targets by way of three market-based mechanisms:

- Emissions trading – known as “the carbon market”
- Clean development mechanism (CDM)
- Joint Implementation

**Table 1: Kyoto Protocol Mechanisms**

Mechanism	Description
Emissions trading	<p>Parties with commitments under the Kyoto Protocol (Annex B Parties) have accepted targets for limiting or reducing emissions. These targets are expressed as levels of allowed emissions, or “assigned amounts,” over the 2008-2012 commitment period. The allowed emissions are divided into “assigned amount units” (AAUs).</p> <p>Emissions trading, as set out in Article 17 of the Kyoto Protocol, allows countries that have emission units to spare - emissions permitted them but not "used" - to sell this excess capacity to countries that are over their targets.</p> <p>More than actual emissions units can be traded and sold under the Kyoto Protocol's emissions trading scheme. Other units which may be transferred under the scheme may be in the form of a removal unit (RMU) on the basis of land use, land-use change and forestry (LULUCF) activities such as reforestation; An emission reduction unit (ERU) generated by a joint implementation project; A certified emission reduction (CER) generated from a clean development mechanism project activity (discussed below).</p> <p>Transfers and acquisitions of these units are tracked and recorded through the registry systems under the Kyoto Protocol.</p>

Mechanism	Description
Clean development mechanism (CDM)	<p>The Clean Development Mechanism (CDM), defined in Article 12 of the Protocol, allows a country with an emission-reduction or emission-limitation commitment under the Kyoto Protocol (Annex B Party) to implement an emission-reduction project in developing countries. Such projects can earn saleable certified emission reduction (CER) credits, each equivalent to one tonne of CO<sub>2</sub>, which can be counted towards meeting Kyoto targets.</p> <p>The mechanism is seen by many as a trailblazer. It is the first global, environmental investment and credit scheme of its kind, providing a standardised emissions offset instrument, CERs.</p> <p>A CDM project activity might involve, for example, a rural electrification project using solar panels or the installation of more energy-efficient boilers.</p> <p>The mechanism stimulates sustainable development and emission reductions, while giving industrialized countries some flexibility in how they meet their emission reduction or limitation targets.</p>
Joint Implementation	<p>The mechanism known as “joint implementation,” defined in Article 6 of the Kyoto Protocol, allows a country with an emission reduction or limitation commitment under the Kyoto Protocol (Annex B Party) to earn emission reduction units (ERUs) from an emission-reduction or emission removal project in another Annex B Party, each equivalent to one tonne of CO<sub>2</sub>, which can be counted towards meeting its Kyoto target.</p> <p>Joint implementation offers Parties a flexible and cost-efficient means of fulfilling a part of their Kyoto commitments, while the host Party benefits from foreign investment and technology transfer.</p> <p>A JI project must provide a reduction in emissions by sources, or an enhancement of removals by sinks, that is additional to what would otherwise have occurred. Projects must have approval of the host Party and participants have to be authorized to participate by a Party involved in the project.</p> <p>Projects starting as from the year 2000 may be eligible as JI projects if they meet the relevant requirements, but ERUs may only be issued for a crediting period starting after the beginning of 2008.</p>

Reproduced from UNFCCC, 'Kyoto Protocol' (2010) [http://unfccc.int/kyoto\\_protocol/items/2830.php](http://unfccc.int/kyoto_protocol/items/2830.php)

## The Voluntary Carbon Market

The voluntary carbon market is relatively small in comparison to compliance markets. This applies to both the volume of offsets sold or traded and the total monetary value of these transactions<sup>1</sup>. That said, recent times have seen significant growth in voluntary carbon markets<sup>2</sup>. Voluntary action outside of these regulated markets may take two forms<sup>3</sup>:

- Voluntary purchases of offset credits recognised under a regulated market.

<sup>1</sup> Voluntary Carbon Markets Association (VCMA), The Voluntary Carbon Market in Australia: Rising to the challenge, June 2010, p.7

<sup>2</sup> Ibid

<sup>3</sup> Reproduced from [www.carbonoffsetguide.com.au](http://www.carbonoffsetguide.com.au)

- Voluntary purchases of offset credits from emission reduction or sequestration projects outside the regulated market. The voluntary nature of these purchases also allow for investment in a broader range of projects than are available through regulated markets. These projects can also be selected to reflect the goals or values of the purchaser (e.g. EPA invested in an offset product which also diverted waste from landfill).

In a report released during early 2009, Ecosystem Marketplace and New Carbon Finance claim that the global voluntary carbon market nearly doubled in terms of value and abatement from 2007 to 2008. Future projections indicated that voluntary markets could have a value of close to \$3 billion by 2020<sup>1</sup>. This growth in value was also reflected in a growth in the levels of abatement achieved by the voluntary market with similar trends observed and projections made moving forward. The most recent report released during June 2010 showed that in 2009, suppliers of carbon offsets reported a 26% decline in transactions. However, 2009 volumes were still found to be 39% above 2007 levels<sup>2</sup>. This drop in volume can be attributed to two major challenges. First, in response to the global financial crisis, companies cut back on discretionary funding for corporate social responsibility initiatives, including offsetting emissions. Secondly, the prospects for new compliance demand remained uncertain.

Voluntary carbon markets have proved to be significant as they represent an active demand by businesses and individuals for some form of action on climate change in the absence of direct regulation<sup>3</sup>. As indicated in the 2009 *State of the Voluntary Carbon Markets* report, the primary motivations for entry into the voluntary market are based on:

- Sustainability reporting;
- Environmental ethics and corporate responsibility;
- Public relations and branding

An example of a regulated or legally binding voluntary market is the Chicago Climate Exchange (CCX) in which players voluntarily set themselves legally binding emissions reduction targets. Participants have an emissions cap and must either reduce their emissions below their cap or purchase offsets generated from accredited projects<sup>4</sup>.

In Australia, in the absence of a compliance market, the total annual voluntary carbon abatement is around 5 to 6 million tonnes per annum. This is equivalent to around 1% of Australia's total emissions and represents around \$150 million per annum in market value. However, these estimates are conservative due to a lack of accurate data and some observers believe that total voluntary carbon abatement in Australia is closer to 10 million tonnes per annum<sup>5</sup>.

The GreenPower™ program, established by the NSW Government in 1997, has also seen strong growth in both the residential and commercial sector. In terms of carbon abatement,

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<sup>1</sup> Voluntary Carbon Markets Association (VCMA), *The Voluntary Carbon Market in Australia: Rising to the challenge*, June 2010, p.7

<sup>2</sup> Ecosystem Market Place & Bloomberg New Energy Finance, *Building Bridges – State of the Voluntary Carbon Markets 2010*

<sup>3</sup> Voluntary Carbon Markets Association (VCMA), *The Voluntary Carbon Market in Australia: Rising to the challenge*, June 2010, p.8

<sup>4</sup> Cities for Climate Protection Australia, *Carbon Offsets Guide for Local Government 2008*, p. 11

<sup>5</sup> Voluntary Carbon Markets Association (VCMA), *The Voluntary Carbon Market in Australia: Rising to the challenge*, June 2010, p.9

GreenPower™ has delivered close to 7.2 million tonnes of emissions savings over the period 2004 – 2009 and is Australia’s primary form of voluntary abatement<sup>1</sup>.

Many domestic offset projects were also certified under the Government’s Greenhouse Friendly™ initiative, which operated from 2001 and ceased on 1 July 2010 following the official inception of the National Carbon Offset Standard. Through Greenhouse Friendly™ businesses were able to market carbon neutral products and services and deliver greenhouse gas abatement. These abatement activities offered permanent, independently verified offsets which represented emissions reductions or sequestration which had contributed to a net reduction of Australia’s greenhouse gas emissions<sup>2</sup>. At the end of 2008, the Department of Climate Change announced that it would cease to accept new projects under the Greenhouse Friendly program in preparation for the anticipated start of Australia’s National Carbon Pollution Reduction Scheme on July 1, 2010. Further discussion surrounding the Greenhouse Friendly™ program and implications for offsets generated under this program is provided below.

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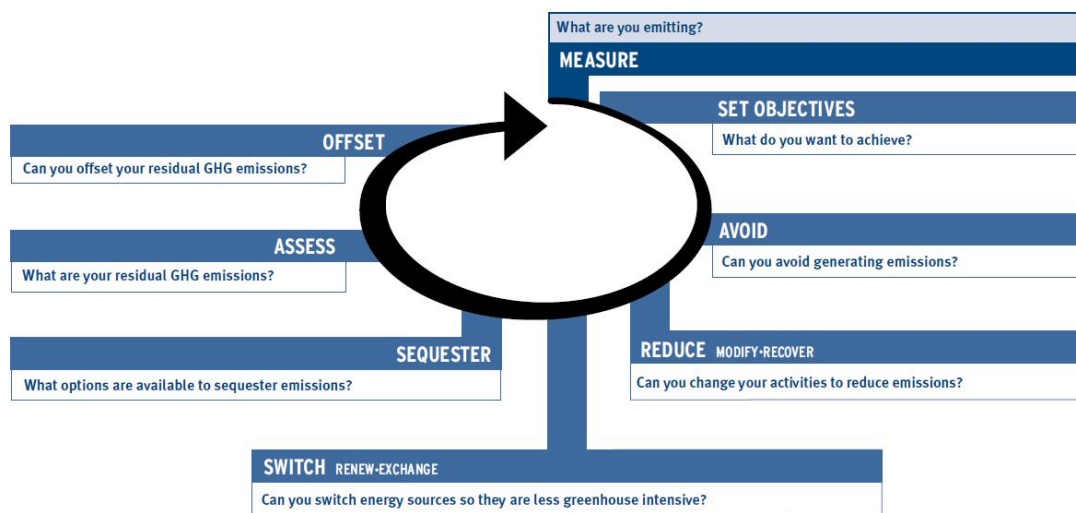
<sup>1</sup> Voluntary Carbon Markets Association (VCMA), The Voluntary Carbon Market in Australia: Rising to the challenge, June 2010, p 9-10

<sup>2</sup> Department of Climate Change and Energy Efficiency - <http://www.climatechange.gov.au/government/initiatives/greenhouse-friendly.aspx>

### 3. Offsets as part of Local Government corporate sustainability

A comprehensive carbon strategy will involve a rigorous assessment of council’s direct and indirect carbon emissions according to relevant standards<sup>1</sup>, a strategy to avoid and reduce these emissions, and finally, for those emissions that cannot be reduced further (i.e. unavoidable emissions), offsetting those emissions by investing in offsets which have prevented or removed an equivalent amount of carbon dioxide elsewhere.

**Figure 1: The Carbon Management Principles**



Source: EPA Victoria, EPA Discussion Paper – Draft Carbon Management Principles, 2007, p. 4

The Carbon Management Principles show the ideal path for managing the GHG emissions from an organisation’s operations or a product/service lifecycle. As you can see, switching to renewable energy or purchasing offsets should be considered only after efforts have been made to avoid and reduce emissions. Actions such as avoiding energy use and using energy more efficiently can usually deliver the same emissions reductions but more cost effectively, and with a range of additional benefits. The use of offsets is also unlikely to lead to a sustainable reduction in emissions in the longer term, due to it relying on political support for an on-going expense that provides no financial return to council. In addition, approaches and technologies associated with avoidance and energy efficiency will continue to develop, providing new possibilities that are currently unfeasible or unavailable. That said there may be instances where offsets serve a useful short-term emissions reduction option while council continues to identify and implement avoidance, efficiency and renewable options.

The drivers for purchasing offsets are intertwined with the drivers for development of a carbon management strategy. Examples in a Local Government may include:

<sup>1</sup> In Australia, measurement of an organisation’s carbon footprint for the purposes of achieving carbon neutrality should be carried out in accordance with the requirements of the National Carbon Offset Standard (NCOS). Other accepted standards include: ISO14064-1(2006) Greenhouse gases – Part 1: Specification with guidance at the organisation level for quantification and reporting of greenhouse gas emissions and removals; The National Greenhouse and Energy Reporting Act 2007; and The GHG Protocol. Local Government’s wishing to create an inventory of their GHG emissions should consider the organisation’s goals and consider third party advice on the use of particular standards.

- Achieving a goal for carbon reduction as part of a council strategy. More frequently, goals are being set to achieve carbon neutrality or zero net emissions within a specified timeframe (i.e. Carbon Neutral by 2018). In the Local Government sector this is often a goal underpinning a comprehensive climate change or environmental strategy/action plan.
- Gaining reputational advantages, which are increasingly associated with low carbon or 'carbon neutral' goods and services.
- Preparing for an emissions trading scheme or other regulatory mechanisms, including gaining market experience
- Addressing corporate social responsibility (CSR) interests or obligations
- Engaging employees on environmental issues and carbon management as we move towards a carbon-constrained economy
- Providing leadership to local residents and business
- Addressing the risk associated with potential costs on carbon

Once the decision has been made to invest in carbon offsets to address part or all of the Council's emissions, the process of decision making in relation to offset type and source begins. Again, this will require consideration of the organisation's goals as well as political and financial factors. Further consideration to purchasing offsets is given below.

## 4. What is a Carbon Offset?

A carbon offset is an investment of resources in *an external project or activity that reduces greenhouse gas emissions or sequesters carbon from the atmosphere, compensating for emissions resulting from an entity's activities*<sup>1</sup>. This investment is often made through a third party and involves the transfer or retirement of offsets, each typically equivalent to saving one tonne of carbon dioxide-equivalent (CO<sub>2</sub>-e). Most offsets are generated through projects that invest in forestry activities, energy efficiency projects, the avoidance of methane emissions and renewable energy. This section details the common offset types and common issues for buyers to consider.

### What are the main types of offsets available?

Carbon offsets are generated from different types of projects or activities, and can be either from emissions whose generation has been prevented or from existing emissions that are sequestered from the atmosphere. There are a wide range of offset actions that reduce emissions, and all have particular issues which purchasers should be aware of. It is useful to have a clear understanding of the project type that has generated the offsets your council might purchase. Examples include:

1. Forestry / Biosequestration
2. Methane projects
3. Renewable energy
4. Energy efficiency
5. Industrial gas
6. Mixed / Other

Table 1 provides a summary of the most common types of projects or activities that are used as a basis for generating offsets, and some of the associated benefits and potential issues of each type.

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<sup>1</sup> Cities for Climate Protection Australia, Carbon Offsets Guide for Local Government, 2008, p. 6

**Table 1: Common types of carbon offset projects**

Project Type	Details
Forestry / Biosequestration	<p>The most popular form of offsets in the voluntary market at present are forestry / biosequestration projects. Trees soak up carbon, and thus can reduce the quantity of greenhouse gases (GHGs) in the atmosphere. The quality and aims of biosequestration offset products vary widely, and not all of these products meet the strict requirements necessary to be verified against offset standards. The permanence of these products requires particular attention. When appropriately planned, these forestry projects can have co-benefits, such as counteracting salinity, supporting local employment and improving biodiversity.</p> <p>Forestry offsets can be divided into 3 broad categories:</p> <ul style="list-style-type: none"> <li>• Afforestation (planting of new forests on lands that historically have not contained forests) or reforestation (planting of forests on lands which had been previously cleared of forest for another land use) where <b>plantation forestry</b> is employed.</li> <li>• Afforestation or reforestation where <b>mixed/native forestry</b> is employed.</li> <li>• Avoided deforestation, which is a relatively new area of carbon offsetting. These type of offsets need to specifically demonstrate additionality.</li> </ul>
Methane	<p>Methane is an important greenhouse gas, and a number of offset products are being sold that remove these from the atmosphere. The products vary significantly and each type should be considered individually:</p> <p><b>Methane - Livestock</b></p> <p>Certain types of animals release methane, either directly or from manure. A new form of offset product has arisen where these emissions can be reduced or collected, particularly where manure is stored in lagoons for future use as fertilizer. These products are not widely available in the Australian market at this time.</p> <p><b>Methane - Landfill</b></p> <p>Decomposing matter emits a range of gases including methane. Methane emitted from landfills can be captured and then flared into the atmosphere, or burnt to generate energy. These offset products are often cheap and the technology is well-developed, but you may need to satisfy yourself that they are 'additional' to business as usual.</p> <p><b>Methane - Coal</b></p> <p>Methane emitted from coal mines is generally vented to ensure the safety of employees. This can also be captured and then flared into the atmosphere, or burnt to generate energy.</p>
Renewable energy	<p>Renewable energy offsets can include wind, solar, biomass and other renewable energy sources, which help reduce reliance on fossil fuel sources. However there are questions over whether renewable energy offset products from some locations meet additionality criteria in more stringent offset standards.</p> <p>Despite this, the use of renewable energy can play an important part in a carbon management strategy.</p>

Project Type	Details
Energy efficiency	A number energy efficiency offset products are available, ranging from major upgrades of manufacturing processes to distribution of energy efficient products. As identified in a report by RMIT's Global Sustainability Institute, "energy efficiency offset products have some perceived risks relating to the accuracy and reliability of baseline measurement and changes over time in energy use." However these projects can also have co-benefits of education and long-term behaviour change.
Industrial Gas	Offset products may target greenhouse gases associated with industrial processes, such as Hydrofluorocarbons (HFCs) and Nitrous oxide (N <sub>2</sub> O). These are presently less common in the Australian market than other types of offset products described above. These can be cheap compared to other offset products, but may not provide other social or economic benefits.
Mixed / Other	Some offset products represent a mix of offset credits from various projects, and it is difficult to ascertain what kind of offsets are being obtained. These are often cheaper than other offset products, but it should be remembered that you have no control over where and what kind of offsets are being purchased.

Reproduced from EPA Victoria – Types of Offsets (2008) <http://www.epa.vic.gov.au/climate-change/carbon-offsets/types-of-offsets.asp>

## Attributes and Issues associated with Offsets

In practice, the offsets detailed in Table 1 above cover a wide range of benefits and can be of different standards of quality. This affects the value of the offset to the purchaser. To determine how robust an offset product is, they are measured against a range of attributes including: additionality, permanence, leakage, double counting, timing of emissions reductions, monitoring & verification and co-benefits. It's important to understand how the offset project saves the amount of emissions it claims. These attributes and issues are discussed in further detail by the EPA Victoria<sup>1</sup> and have been reproduced below:

### **Additionality**

Additionality is a key concept in evaluating whether or not an offset project leads to real and measurable greenhouse gas reductions. To be regarded as a valid offset, a project must be proven to be 'additional' to what would have occurred anyway. For example, a routine upgrade of equipment or changes in response to a regulatory requirement cannot be regarded as additional.

Translating the concept of additionality into practice requires establishing 'tests' of additionality. Typically these tests address the following types of additionality:

- *Financial Additionality*: the project needs to go beyond business as usual (BAU) commercial practice. A standard test for this is if the project is financially viable without the offset funding.

<sup>1</sup> Reproduced from EPA Victoria 'What are the main issues associated with offsets?' 2008 <http://www.epa.vic.gov.au/climate-change/carbon-offsets/issues.asp> and <sup>1</sup>Cities for Climate Protection Australia, Carbon Offsets Guide for Local Government, 2008

- *Regulatory Additionality*: the project needs to go beyond existing legal or regulatory requirements.
- *Environmental Additionality*: the emission reductions cannot be counted toward another emission reduction scheme or commitment.

Under the National Carbon Offset Standard (Section 3.2.1a - Domestic offset eligibility criteria), greenhouse gas emissions reductions generated by the project must be beyond what would be required to meet regulatory obligations under any Australian laws or regulations or undertaken as part of BAU investment. The level of additional emissions reductions generated by an offset project is the difference between the emissions associated with the project ('project emissions') and emissions under a business-as-usual scenario.

**Box 2: The issue of domestic offsets and additionality**

After coming to power in late 2007, then Prime Minister Kevin Rudd ratified the Kyoto Protocol restricting Australia's emissions to 108 per cent of 1990 levels during the 2008-2012 commitment period. Under the Kyoto Protocol, countries are allocated Kyoto units called assigned amount units (AAUs) on the basis of their initial assigned amount, where each AAU signifies an allowance to emit one tonne of carbon dioxide equivalent. Australia's initial assigned amount, and the method by which it is calculated, is set out in Australia's Initial Report under the Kyoto Protocol.

Australia's Kyoto commitment applies to a range of 'covered sectors' in our economy and all calculations, reductions and reporting must be achieved in these areas. Sectors include:

- Energy
- Industrial Processes and Solvents
- Agriculture
- Waste
- Land use, land use change and forestry (LULUCF)

In simple terms, Australia now has a regulatory obligation to reduce emissions from these sectors and may use the flexible mechanisms described earlier in this paper. Currently this means that most domestic offset projects fail to meet the Regulatory Additionality test described above. Consider for example a reforestation project where the proponent acquires a portion of degraded farmland and plants a range of native tree species in order to rehabilitate the land and create a carbon sink.

Article 3.3 of the Kyoto Protocol states - *The net changes in greenhouse gas emissions by sources and removals by sinks resulting from direct human-induced land-use change and forestry activities, limited to afforestation, reforestation and deforestation since 1990, measured as verifiable changes in carbon stocks in each commitment period, shall be used to meet the commitments under this Article of each Party included in Annex I. The greenhouse gas emissions by sources and removals by sinks associated with those activities shall be reported in a transparent and verifiable manner and reviewed in accordance with Articles 7 and 8.*

Due to the fact that there is a regulatory requirement for Australia to reduce its emissions and forest sinks resulting from direct human-induced land-use change and forestry activities are covered by this commitment (i.e. they are covered in our national reporting) the project would not be considered additional. A project such as this would currently not meet any offset standard specified under the National Carbon Offset Standard and are also technically subject to the issue of double counting (see below).

## ***Permanence***

Some emission reductions may not be secure or may involve a range of risks. For example, this can occur with forestry projects where risks from fire or pest infestation are high, or where carbon offset credits are sold in advance. Offset providers should offer some form of guarantee that purchased credits will be maintained, or customers will be compensated if the project doesn't deliver the expected emissions reductions. Again, this is also a requirement of NCOS eligible offsets.

## ***Leakage***

Changes in emissions that take place beyond the boundary of the project but are attributable to the project activity are called emissions 'leakage'. New and/or additional emissions occurring off-site need to be quantified and taken into account in assessing the emissions reductions achieved. For example, if a forestry project limits logging in one area, the possibility that deforestation will occur elsewhere should be considered. Offset providers should also consider emissions from project operations (eg. electricity use, transportation of materials, etc.) that could increase emissions relative to the project baseline.

Leakage should be explicitly addressed in calculation of the net emissions reductions achieved by a project.

## ***Double counting***

Double counting can happen when two or more businesses claim the same emissions reduction. This can happen if an offset is sold to two or more entities, or when an entity upstream of the project unknowingly claims the reduction as its own (eg. an electricity generator). The establishment of protocols, and the use of an offsets registry can ensure offsets are adequately accounted for. Box 2 (above) considers a double counting issue in the Australian context.

## ***Timing of emissions reductions***

Some offset providers generate and sell credits from their projects on an annual basis while others forecast credits over the life of their projects and sell them up-front.

For some projects this is necessary to get project funding, but counting on emissions reductions to occur over the lifetime of a project presents several risks. Regulatory requirements could make some offset projects obsolete in the future. For example, implementing energy efficiency technologies that may be mandated by government in the future would no longer satisfy 'additionality' requirements (see above).

Proper monitoring and verification, and legally-recognised commitments from the offset provider to secure replacement credits if the project doesn't deliver anticipated emissions reductions can help to mitigate these risks.

Purchasers of offsets may wish to ensure that the GHG impact of their operations are neutralised by offsets in 'real time'. It should also be noted that forward sold offsets or 'future

carbon' will not meet the requirements of the National Carbon Offset Standard as they are required to be measured and verified prior to use.

### ***Monitoring and verification***

To ensure that the emissions reductions claimed by the project have actually taken place, the emissions should be monitored and verified, in line with a recognised standard.

The verifier should evaluate the project based on an explicit set of criteria that minimise the risk of false emission reduction claims. This should include the ongoing monitoring of the project to ensure that claimed outcomes have eventuated. Use of a third-party verifier is recommended to ensure the integrity of the offset credits.

The National Carbon Offset Standard requires that eligible offsets be measurable, transparent, independently audited and registered. Section 3.2.1 states the following:

With regard to measurement - Methodologies used to quantify the amount of emissions reductions generated must be robust and based on a defensible scientific method. Methodologies must clearly define a boundary for the emissions reduction project, emissions sources and emissions factors and activity levels. They must specify the calculation of a baseline emissions forecast reflecting business-as-usual and the means of comparing it to expected emissions from the project to determine the carbon offsets generated. The methodology must specify the uncertainty associated with the calculation of offsets generated. It should also specify the risks associated with achieving the forecast abatement and how they will be managed.

With regard to transparency - Consumers and other interested stakeholders must be able to examine information on domestic offset projects, including the applied methodology, emissions calculations and project monitoring arrangements, by accessing a publicly available website. The information provided should clarify data sources, exclusions, inclusions and assumptions.

With regard to independent verification - Eligibility of methodologies, offset projects and greenhouse gas emissions reductions generated must be audited by an independent third party. Existence of a conflict of interest should be determined.

With regard to registration - Emissions reduction units generated must be registered and tracked in a publicly transparent registry.

### ***Co-benefits***

Although the primary goal of offsets is to encourage reduction in GHGs, projects may provide secondary benefits such as:

- reductions of other pollutants;
- increase in habitats for biodiversity;
- reducing reliance on fossil fuels in the economy; and
- education benefits from the installation of new energy efficient technologies.

Co-benefits vary between projects and may be an important factor in voluntary offset purchasing decisions. They may also impact upon the value of the offset such as in the case of Gold Standard (see below) which requires that a carbon offset project deliver ancillary environmental, social and economic benefits to the surrounding environment and community.

## 5. Overview of offset standards

As discussed earlier in this paper, offsets are traded as either carbon credits in regulated compliance markets or purchased in un-regulated voluntary markets.

In a regulated carbon market, entities either volunteer or are obligated to participate and must contain their emissions below an emissions cap or purchase credits for any emissions that exceed their cap. Entities that are not bound by a regulatory obligation to contain their emissions, such as Local Governments in Australia, can voluntarily purchase offsets from both the regulated compliance market and the un-regulated voluntary market. However, in the unregulated voluntary market, offsets can effectively be created by anyone and traded by anyone, which adds a degree of risk for the offset purchaser.

This highlights the need to understand the accreditation standards used to certify the offsets your council may purchase. The standards described below have been developed to attempt to standardise the methodology and attributes associated with the generation of offsets from different projects.

At this point it should be noted that there is no single universal standard for the verification of carbon offsets; and the various standards continue to change as verification methodologies are refined.

Below is a list of commonly recognised standards for both regulated and voluntary offsets. It is important to note that, as with the rest of this guide, relevant standards will continue to emerge.

**Table 2: Summary of Commonly Recognised Carbon Offset Standards**

Standard	Market type	Project Types	NCOS Eligible (Y/N)
CDM/JI	Regulated compliance	Industrial gases, renewables, energy efficiency, forestry	Y
CDM Gold Standard (inc VERs and VCUs)	Regulated voluntary	Renewables, demand side energy efficiency	Y
Voluntary Carbon Standard (VCS)	Regulated voluntary	Industrial gases, renewable, energy efficiency, forestry	Y
Renewable Energy Certificates (RECs) <sup>1</sup>	Regulated compliance	Renewable energy – wind, solar, hydro geothermal, wave, methane recovery	Y
NGACs	Regulated compliance	Renewable energy, energy efficiency, forestry	N
Greenhouse Friendly <sup>2</sup>	Regulated voluntary	Renewable energy, energy efficiency, forestry	N

<sup>1</sup>The purchase of GreenPower™ and the voluntary cancellation of Renewable Energy Certificates (RECs) generated by accredited GreenPower™ generators (GreenPower™-eligible RECs) is considered to be equivalent to the direct use of renewable energy. On that basis, GreenPower™ and voluntary cancellation of GreenPower™-eligible RECs are treated as a zero-emissions electricity source in a product's LCA or an organisation's GHG Inventory.

<sup>2</sup>Only emissions sources that are not counted towards Australia's Kyoto Protocol target are eligible to generate offsets under the NCOS. All Greenhouse Friendly™ abatement has been generated in counted sectors.

Reproduced from Cities for Climate Protection Australia, Carbon Offsets Guide for Local Government, 2008, p. 12

## International Certification Standards

As discussed above, a number of governments around the world have set up regulated markets to trade carbon credits, with the objective of using market mechanisms to support targets for emissions reductions or set requirements for business in specific sectors to reduce their greenhouse gas emissions. These markets are usually legally binding on businesses and are called 'compliance carbon markets. Offsets purchased from compliance markets can also be viewed as more 'reliable', as the carbon credits will have met prescribed standards.

The two main compliance standards for accreditation of carbon credits for trading schemes that were set-up under the Kyoto Protocol are the Clean Development Mechanism (CDM) and Joint Implementation (JI) (discussed above). These standards are governed by the independent Executive Board that is part of the United Nations Framework Convention on Climate Change.

These standards provide high levels of integrity, credibility and robustness; but to comply with the framework can incur high costs and therefore is mainly limited to larger projects. Project developers are required to submit the project document for validation by an accredited third party. This party then carries out a verification and final certification process to ensure the activity has occurred and achieved the emissions reductions claimed.

### Box 3: The CDM Gold Standard

The CDM Gold Standard is a compliance standard developed by a group of NGOs and is largely based on the CDM standard. However, it includes additional 'sustainable development' control criteria, such as ensuring a reduction of a society's dependence on fossil fuel-based power, a strict additionality test and environmental and social indicators. The standard specifically excludes forestry sequestration, large-scale hydro and energy from waste projects<sup>1</sup>.

In the voluntary market there are also several certification standards for the verification of carbon offset projects. The Voluntary Gold Standard is based on the CDM Gold Standard, based on the CDM Gold Standard mentioned above, was launched in May 2006 specifically for use in the voluntary offset market to generate verified emissions reductions and also has a strong focus on sustainable development. Whilst based on the CDM Gold Standard, it has simplified procedures in order to target small or micro projects.

In addition, the Climate Group, in association with the International Emissions Trading Association has developed a Voluntary Carbon Standard also aimed at the voluntary offset market, creating a new trading unit called the Voluntary Carbon Unit (VCU). The standard has created a registry managed by the Bank of New York to register, transfer and retire VCUs.

## National Standards

As discussed above, the New South Wales Greenhouse Gas Abatement Scheme (GGAS) commenced on 1 January 2003. GGAS aims to achieve greenhouse gas emissions associated with the production and use of electricity via the use of project-based activities to offset the production of greenhouse gas emissions. New South Wales Greenhouse Gas

<sup>1</sup> Reproduced from Cities for Climate Protection Australia, Carbon Offsets Guide for Local Government, 2008, p. 10

Abatement Certificates for NGACs are created through renewable energy generation, energy efficiency, Biosequestration and large scale emissions reduction by industry.

Also in Australia is the Mandatory Renewable Energy Target (MRET). This national scheme is legally binding on wholesale purchasers of electricity to proportionately contribute towards the generation of an additional 9,500 GWh or renewable energy per year by 2010. MRET uses Renewable Energy Certificates (RECs) to provide incentives for the development of renewable energy sources. RECs are denominated in electricity output (MWh), rather than emissions of CO<sub>2</sub>-e, and are purchased and surrendered (retired) by wholesale electricity purchasers to meet their respective obligations under the scheme. RECs may also be purchased voluntarily by players outside of the market.

### **Greenhouse Friendly™**

The most developed voluntary carbon offset standard until recently was part of the Greenhouse Friendly™ Initiative. Operating from 2001 to 1 July 2010, Greenhouse Friendly™ enabled Australian businesses to market carbon neutral products and services, deliver greenhouse gas abatement and give Australian consumers greater purchasing choice.

A number of Local Government's have committed to the purchase of offsets certified under the former Greenhouse Friendly™ Initiative or the purchase of products and services also certified under this initiative. Currently, some confusion exists around the eligibility of Greenhouse Friendly™ certified offsets and products due to the closing of the initiative. This section will aim to provide some clarification regarding these issues.

The Department of Climate Change and Energy Efficiency states the following on their website:

The planned introduction of the Carbon Pollution Reduction Scheme (CPRS) would have implications for Greenhouse Friendly™. The CPRS's broad sectoral coverage meant there would be less scope to pursue offset activities, with offsets limited to emissions sources not covered by the CPRS.

All Greenhouse Friendly abatement was in sectors that would be covered by the CPRS (once it is introduced) and that are counted towards Australia's Kyoto Protocol target. Abatement in these sectors would not meet the test of being additional to "business as usual" (see Box 2), and therefore can no longer be used to support carbon neutral claims. For these reasons Greenhouse Friendly™ was wound up on 1 July 2010<sup>1</sup>.

The Government has developed the National Carbon Offset Standard (NCOS) to provide national consistency and to give consumers confidence in the voluntary carbon offset market. The NCOS commenced on 1 July 2010 and will provide the functions of Greenhouse Friendly™ in a way that complements Australia's Kyoto commitments and the planned introduction of the CPRS.

Many of the Product and Service providers originally certified under the initiative are now undertaking the transition to the NCOS Carbon Neutral Program. These companies will be listed under the NCOS Carbon Neutral Program.

Abatement generated by Greenhouse Friendly™ abatement prior to 1 July 2010 may still be sold, purchased, and retired in voluntary and international carbon markets. However, as they are not eligible offsets under the NCOS, they cannot be retired for the purpose of becoming carbon neutral under the NCOS from 1 July 2010.

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<sup>1</sup> Australian Government Department of Climate Change and Energy Efficiency, 'Greenhouse Friendly™' (2010) <http://www.climatechange.gov.au/greenhousefriendly/>

## **GreenPower™**

GreenPower is a government accreditation program for renewable energy. It is bought by energy providers on behalf of residential and commercial consumers and then sold into the retail market. Renewable energy is generated from sources like mini hydro, wind power and biomass which produce no net greenhouse gas emissions. When an organisation such as a Local Government chooses to buy a GreenPower product, the extra charges are invested in the renewable energy sector. The government GreenPower program organises publicly available independent auditing of energy retailers' sales and purchases, making sure retailers are investing in renewable energy on the consumer's behalf<sup>1</sup>.

Even though it is accredited, GreenPower does not explicitly represent an offset standard. It is additional to obligations under the national Mandatory Renewable Energy Target (MRET) and must come from generation facilities that meet strict environmental criteria and that were built after January 1997<sup>2</sup>.

Since the proportion of grid power present in state electricity grids is factored into the formulation of grid based emissions factors for electricity consumption (kgCO<sub>2</sub>-e/kWh), one could argue that there is a double counting issue associated with utilising GreenPower as an offset. This is due to the fact that all entities or individuals utilising the state based electricity emissions factors to calculate their emissions footprint will receive a benefit from the collective production of all renewable energy in the state.

However, following the release of the National Carbon Offset Standard, the Department of Climate Change and Energy Efficiency announced the following:

The purchase of GreenPower™ and the voluntary cancellation of Renewable Energy Certificates (RECs) generated by accredited GreenPower™ generators (GreenPower™-eligible RECs) is considered to be equivalent to the direct use of renewable energy. On that basis, GreenPower™ and voluntary cancellation of GreenPower™-eligible RECs are treated as a zero-emissions electricity source in a product's LCA or an organisation's GHG Inventory.

Organisations should record in their LCA or GHG Inventory the total amount of electricity consumed by the organisation or in the production of a product in the reporting period, together with the amount of GreenPower™ purchased and/or the number of GreenPower™-eligible RECs voluntarily cancelled. A zero emissions factor can be applied to the proportion of electricity consumption from GreenPower™ or for which eligible RECs have been voluntarily cancelled<sup>3</sup>.

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<sup>1</sup> [www.greenpower.gov.au/what-is-greenpower.aspx](http://www.greenpower.gov.au/what-is-greenpower.aspx)

<sup>2</sup> Reproduced from Cities for Climate Protection Australia, Carbon Offsets Guide for Local Government, 2008, p. 11

<sup>3</sup> Australian Government Department of Climate Change and Energy Efficiency, '[NCOS] Q&A for business' (2010) <http://www.climatechange.gov.au/government/initiatives/national-carbon-offset-standard/q-and-a-for-business.aspx>

## 6. Offsets and NCOS

The National Carbon Offset Standard (NCOS) provides guidance on what constitutes a genuine, additional voluntary offset in the context of the proposed Carbon Pollution Reduction Scheme (CPRS). Effective from 1 July 2010, coinciding with the cessation of the Government's Greenhouse Friendly program, the NCOS sets a voluntary minimum standard for:

- Carbon offset eligibility and generation;
- Carbon footprint calculation;
- Achieving carbon neutrality; and
- Audit and verification of carbon claims

The NCOS provides a means of ensuring the integrity of offsets and carbon neutral products available for consumers and businesses alike. The Standard assists consumers to make effective choices in regard to offsetting and interpreting carbon neutral claims. It also provides guidance for businesses for determining their carbon footprint and for purchasing robust offsets. Key offset criteria and NCOS eligible offsets are discussed further below.

In order to administer the application of the National Carbon Offset Standard, the Government has established the NCOS Carbon Neutral Program. The program allows organisations within Australia to be certified under the National Carbon Offset Standard as carbon Neutral and will provide the functions of the former Greenhouse Friendly™ program.

Coinciding with the release of the NCOS and establishment of the Carbon Neutral Program, the Australian Government committed over \$75 million to establish the Australian Carbon Trust. The Australian Carbon Trust is a Commonwealth company limited by guarantee, with an independent Board of Directors and has been developed in collaboration with the Carbon Trust in the United Kingdom<sup>1</sup>. The organisation will manage two Government initiatives:

- the Energy Efficiency Trust which will provide information and tools for businesses to effectively participate in Australia's climate change response; and
- the National Carbon Offset Standard Carbon Neutral Program

Importantly, the NCOS provides a best-practice standard for Local Governments wishing to measure their GHG emissions, develop an emissions management plan, and purchase offsets certified under a robust framework. Key issues relating to the application of the NCOS in a Local Government context are dealt with in detail in a briefing paper entitled 'Local Governments and the National Carbon Offset Standard', which was prepared on behalf of the LGA SA during May 2010. The following section will clarify the application of the NCOS in relation to Carbon Offsets specifically. Local Government Officers seeking further information about other aspects of the standard are encouraged to consult the briefing paper.

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<sup>1</sup> The Carbon Trust UK is a not-for-profit company providing specialist support to help business and the public sector cut carbon emissions, save energy and commercialise low carbon technologies ([www.carbontrust.com](http://www.carbontrust.com)).

Organisations seeking to achieve carbon neutrality in the context of the NCOS Carbon Neutral Program are required to purchase eligible offset credits under the National Carbon Offset Standard. These eligible units include:

- Carbon pollution permits, including those from forestry projects opting into the Carbon Pollution Reduction Scheme when introduced<sup>1</sup>
- Eligible international units accepted for compliance under the Kyoto Protocol
- Credits issued under the internationally recognised Voluntary Carbon Standard and Gold Standard, where these meet specific requirements
- Credits issued by domestic offset projects that reduce emissions from sources currently not counted towards Australia's Kyoto Protocol target.

### **Key offset criteria**

Section 3.1 of the National Carbon Offset Standard deals with offsets eligible under the NCOS Carbon Neutral Program. The following has been reproduced from that document:

Voluntary retirement of the following units will be accepted under the Standard for the purposes of voluntary carbon offsetting:

- (a) Australian Emissions Units (AEUs) (note that there are currently no AEU's in existence and depending upon the outcome of the current commonwealth political process this category may ultimately need to be amended or removed);
  - (b) Certified Emissions Reductions (CERs) except long term (ICERs) and temporary (tCERs);
  - (c) Emission Reduction Units (ERUs);
  - (d) Removal Units (RMUs);
  - (e) Voluntary Emissions Reductions (VERs) issued by the Gold Standard\*;
  - (f) Voluntary Carbon Units (VCUs) issued by the Voluntary Carbon Standard\*;
- \* Where credits are issued for reduced emissions from deforestation and degradation (REDD) and other agriculture forestry and land use (AFOLU) projects, they must apply methodologies approved under the Standard.
- (g) Offsets generated from emissions sources in Australia not counted toward Australia's Kyoto Protocol target, where they meet eligibility criteria and use a methodology that has been approved under the Standard.

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<sup>1</sup> The National Carbon Offset Standard was designed in the context of the Government's proposed Carbon Pollution Reduction Scheme (CPRS) and as such contains several components that are reliant upon its introduction. These sections of the standard are likely to change in the future should the proposed CPRS be abandoned in favour of an alternative scheme (i.e. Carbon Tax). Recognising this, the Department of Climate Change and Energy Efficiency is explicit in stating that "The National Carbon Offset Standard is a 'living' document that will be regularly reviewed and updated to reflect the dynamic nature of the voluntary carbon market and provide ongoing opportunities for Australian businesses." See [www.climatechange.gov.au/government/initiatives/national-carbon-offset-standard.aspx](http://www.climatechange.gov.au/government/initiatives/national-carbon-offset-standard.aspx).

The Government has stated that it reserves the right to amend eligible offset units as required to reflect carbon market developments both internationally and domestically. The list of eligible offset units will be reviewed regularly and is likely to change over time.

Proponents may propose methodologies for offset projects and develop offset projects within Australia from emissions sources not counted toward Australia's obligations under the Kyoto Protocol target.

Emissions sources currently not counted toward Australia's obligations under the Kyoto Protocol target and eligible for the generation of domestic offsets under the Standard are:

- Forest management (forests established before 1990);
- Revegetation (establishment of woody biomass that does not meet forest criteria); and
- Cropland and grazing land management (net greenhouse gas emissions from soil, crops and vegetation).

Emission sources not counted toward our International Target will be subject to outcomes in international negotiations and, similar to domestic arrangements are likely to change over time.

In order for domestic offset methodologies and projects to be considered eligible under the Standard they are required to occur within Australia and be:

- a. **Additional** - Greenhouse gas emissions reductions generated by the project must be beyond what would be required to meet regulatory obligations under any Australian laws or regulations or undertaken as part of 'business-as-usual' investment. The level of additional emissions reductions generated by an offset project is the difference between the emissions associated with the project ('project emissions') and emissions under a business-as-usual scenario. The administrative framework supporting the Standard will provide further guidance on how to apply additionality principles.
- b. **Permanent** - Greenhouse gas emission reductions must be permanent. In the case of sinks, this requires that the carbon stored is sequestered and will not be released into the atmosphere in the future.
- c. **Measurable** - Methodologies used to quantify the amount of emissions reductions generated must be robust and based on a defensible scientific method. Methodologies must clearly define a boundary for the emissions reduction project, emissions sources and emissions factors and activity levels. They must specify the calculation of a baseline emissions forecast reflecting business-as-usual and the means of comparing it to expected emissions from the project to determine the carbon offsets generated. The methodology must specify the uncertainty associated with the calculation of offsets generated. It should also specify the risks associated with achieving the forecast abatement and how they will be managed.

- d. **Transparent** - Consumers and other interested stakeholders must be able to examine information on domestic offset projects, including the applied methodology, emissions calculations and project monitoring arrangements, by accessing a publicly available website. The information provided should clarify data sources, exclusions, inclusions and assumptions.
- e. **Independently audited** - Eligibility of methodologies, offset projects and greenhouse gas emissions reductions generated must be audited by an independent third party. Existence of a conflict of interest should be determined.
- f. **Registered** - Emissions reduction units generated must be registered and tracked in a publicly transparent registry.

### **Domestic Generation of NCOS eligible offsets**

Currently under the NCOS, offset projects may be developed within Australia from emissions sources and sinks currently not counted towards Australia's obligations under the Kyoto Protocol target, such as:

- Enhanced forest management (the management of forests established before 1990);
- Cropland and grazing land management (net greenhouse gas emissions from soil, including biochar, crops and vegetation on cropland and grazing land); and
- Revegetation (establishment of vegetation that does not meet the Kyoto Protocol definitions of afforestation and reforestation).

Reproduced from Section 3.2 of the National Carbon Offset Standard

Methodologies for producing offsets from these emissions sources must be proposed and approved under the NCOS before offset projects can be implemented.

### ***The Carbon Farming Initiative***

In the lead up to the Federal election earlier this year, the Labor Party pledged that it would introduce a Carbon Farming Initiative (CFI) if re-elected<sup>1</sup>. At present, there is no uniform way for farmers, forest growers or landholders to generate carbon credits and sell them into international (and national) markets. Under the CFI the Government will legislate clear rules for the recognition of carbon credits that could then be sold on domestic or international markets. The initiative will provide funding to Landcare<sup>2</sup> to help farmers meet the requirements for credit generation. Landcare will also advise farmers if there are opportunities to "pool" with nearby properties and catchment areas. Further, there will be no restriction on the number of credits that can be generated.

Methodologies for reforestation, legacy waste emissions from landfill sites, manure management in intensive livestock production and savanna fire management (subject to successful completion of current research), could also be developed, assessed and

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<sup>1</sup> Labor's Carbon Farming initiative: a chance to get things started? (2010) [www.climateinstitute.org.au](http://www.climateinstitute.org.au)

<sup>2</sup> Landcare Australia Limited is a partnership between the community, government and business to carry out environmental protection in Australia. Landcare Australia Limited is a not for profit, non-political bipartisan organisation, it does not lobby and is not an advocacy organisation.

approved by December 2011. Methodologies for fertilizer use and avoided deforestation could also be developed, assed and approved by December 2012.

Some forest plantings are already established and are absorbing carbon emissions. For forestry projects, where rigorous methodology is already established, projects could apply to have crediting backdated to 1 July 2010.

The announcements also indicated that the Government would support research and on-farm testing of Biochar<sup>1</sup> as a further option for land managers to contribute to reducing Australia's emissions<sup>2</sup>.

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<sup>1</sup> Biochar is charcoal created by pyrolysis of biomass, and differs from charcoal only in the sense that its primary use is not for fuel, but for biosequestration or atmospheric carbon capture and storage. Charcoal is a stable solid rich in carbon content, and thus, can be used to lock carbon in the soil.

<sup>2</sup> Australian Labor Party, 'Carbon Farming Initiative' Campaign Media Release (14 August 2010) – [www.alp.org.au](http://www.alp.org.au)

## 7. Offsets and the Trade Practices Act

Any representation made in the course of trade or commerce must comply with the requirements of the *Trade Practices Act 1974 (TPA)*. Claims about environmental performance can have a significant positive impact on reputation, and can significantly influence consumers. Just like any other promotional claim, carbon claims are closely scrutinised and must be truthful and accurate.

The Australian Competition and Consumer Commission (ACCC), the government regulator charged with enforcing the TPA, has noted that as the voluntary carbon market has grown, concerns have emerged about what consumers and businesses are really purchasing when they buy carbon offsets. Businesses have recognised the value in promoting environmental claims, meaning that the market is now flooded with all sorts of promotion. While many of these claims are legitimate, some are not, and this can cause widespread confusion.

In the context of carbon claims, one of the highest risk areas is the purchase of ineffective carbon offsets. If an offset is ineffective, then the validity of the environmental claim being made is clearly undermined. Varied levels of understanding about carbon offsets and carbon neutrality and varied assessment methodologies can create confusion as to the legitimacy of claims and products.

In October 2008, the ACCC released a guide entitled: 'Carbon claims and the Trade Practices Act' in order to inform businesses about their obligations under the TPA<sup>1</sup>. It examines some issues surrounding carbon offset and neutrality claims and how they are affected by the Act. While this guide should only be seen as a guide, it provides some high-level guidance as to the *do's and don'ts* of carbon claims. Caution should, however, still be exercised as compliance with this guide does not always mean an organisation will have complied with its legal obligations under the TPA.

Broadly, carbon claims should alert and inform the public to exactly what is being offset and how. Vague, unsubstantiated, confusing or misleading information will reduce consumer confidence in carbon claims thereby disadvantaging ethical traders. Similarly, long and complicated disclaimers that seek to justify a carbon claim are likely to be both legally ineffective, but also viewed with suspicion by consumers. The ACCC aims to prevent the 'greenwashing' of advertising and communications and will vigorously pursue any claims which breach the TPA.

The TPA applies to all forms of marketing including claims on packaging, labelling and in advertising and promotions across all mediums (print, TV, radio and internet). Additionally, the TPA applies to any form of conduct in trade or commerce, meaning carbon claim representations included in 'business documents or records' such as tender material, contracts or submissions can also be caught. There are several provisions of the TPA affecting the carbon claims that an organisation may make. All of these provisions are found in Part V of the TPA.

It is important to remember that compliance with the TPA can be enforced in a number of ways. Misleading carbon claims may be investigated by the ACCC, or action could be taken by another business (such as a competitor) or a consumer. In addition to damages and the

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<sup>1</sup> Australian Competition & Consumer Commission, 'Carbon claims and the Trade Practices Act' (2008), Commonwealth of Australia ([www.accc.gov.au](http://www.accc.gov.au))

cost of defending a claim or partaking in an ACCC investigation, contracts or agreements that were put in place either wholly or in part because of a claim can become unenforceable.

### **Misleading and deceptive conduct**

Section 52 of the TPA prohibits misleading and deceptive conduct or conduct that is likely to mislead or deceive. Note that the conduct only needs to be likely to mislead or deceive; it does not matter whether you actually misled anyone or whether you intended to mislead.

Many businesses who advertise carbon claims or environmental performance have the best of intentions. However, this is irrelevant for an objective assessment of whether or not the claim is legitimate.

### **False or misleading representations**

Organisations must not falsely represent goods or services as having sponsorship, approval, performance characteristic, accessories, uses or benefits they do not have. As a purchaser of offsets—when making claims about your organisation’s carbon neutrality, or about products and services you have offset, councils should be aware that inappropriate or poor quality offsets may leave you at risk of making a false claim.

### **Disclaimers and qualifications**

Where a headline claim is made that requires substantial qualification or justification (including to account for risk factors set out below), then disclaimers and qualifications that are:

- extensive;
- complicated; or
- used to actually correct or change the representation, as opposed to simply explaining it, are unlikely to comply with the TPA. Generally, headline representation should speak for themselves, with only minimal justification required.

### **Primary risk factors**

Liability for a misleading claim cannot be avoided by reason of a business honestly believing it has purchased legitimate or adequate offsets. While a future prediction that does not come true can be defended on the basis a sound and reasonable basis was held for that prediction, substantial diligence must be shown by a business to be afforded this protection. In context of both current and future carbon claims the responsibility to properly investigate offsets and to assess how they apply lies with business making the claims. It is also the responsibility of the business to assess whether or not a claim that is being made accurately reflects how the carbon offset actually applies. Every circumstance is different.

The ACCC guide refers to the key offset characteristics (as discussed above) for consideration when purchasing offsets. These are the characteristics that are most likely to cause concern if they are not properly considered and accounted for when making a claim. Some of the key risks that can arise in the context of false or misleading carbon claims are:

### ***Additionality***

Without additionality, a particular reduction is not legitimately able to be tied to another specific emission and therefore the climate impact is not offset—even though some reduction may have occurred. Such an offset is then problematic when making a carbon offset claim. If additionality is not present, it is likely to be misleading to make a carbon offset claim.

### ***Timing (forward credited offsets)***

When offsets are forward credited, the buyer pays and has the offsets credited to them upfront, although the offsets will be produced in the future. Clearly, forward crediting carries the risk of claiming credits that may not eventuate. Liability for these risks should be carefully considered when purchasing carbon offsets. A false or misleading carbon claim allegation cannot be defended by stating that somebody else did not deliver.

Forward credited offsets can be a risky proposition so you should look for offset providers that fully disclose both the risks and how those risks are managed.

Offset providers offering credits that are not already realised, (or that may take long periods of time to be realised) such as tree planting, should disclose this fact to consumers. Similarly, offset providers that accumulate the purchases of several customers and wait until a threshold has been reached, before planting for example, should inform consumers that the emissions reductions they are purchasing have not yet occurred and will not occur until the threshold has been reached.

### ***Double counted offsets***

Double counting occurs when an offset is not 'retired' and two or more businesses claim the same emissions reduction. To offset an emission the offset credit must be retired in some way. Simply purchasing an offset but not retiring it does not offset your specific emission. To ensure that your emissions are offset and therefore your carbon offset claims are substantiated, make sure the offsets you purchase are retired at point of sale.

### ***Permanence and risk management***

An emissions reduction project may not be entirely secure or may involve a range of risks. For example, a reforestation project may have risks from fire or pest infestation. As with forward crediting, obtaining some form of guarantee that purchased credits will be maintained and replaced if destroyed, or alternatively, that the prospect of some degree of damage has been factored into the credit calculation, may help alleviate the potential for misleading conduct based on poor risk management.

### ***Co-benefits***

Co-benefits from emission reduction projects might include such things as the reduction of other pollutants, an increase in habitats for biodiversity, reducing reliance on fossil fuels in the economy or educational benefits from the installation of new energy efficient technologies. However, while co-benefits are an important aspect of an offset's environmental credentials, they should not be used to compensate for essentially poor quality offsets.

## Carbon Offset Registries

Carbon offset registries keep track of offsets and are vital in minimizing the risk of double-counting (that is, to have multiple stakeholders take credit for the same offset). Registries also clarify ownership of offsets. A serial number is assigned to each verified offset. When an offset is sold, the serial number and “credit” for the reduction is transferred from the account of the seller to an account for the buyer. If the buyer “uses” the credit by claiming it as an offset against their own emissions, the registry retires the serial number so that the credit cannot be resold<sup>1</sup>.

Registration and Enforcement Systems must include:

- A registry with publically available information to uniquely identify offset projects.
- Serial number for each offset credit generated by the project.
- A system to transparently track ownership of offsets which makes it possible to track each offset to the project from which it originated.
- A system to easily check on the status of an offset (i.e. whether an offset has been retired).
- Contractual or legal standards that clearly identify the original “owner of emission reductions
- Contractual or legal standards that spell out who bears the risk in case of project failure or partial project failure (e.g. who is responsible for replacing the offsets that should have been produced by the failed project).

Obtaining offsets directly through a registry simplifies the delivery process significantly, as buyers simply establish an account into which the registry transfers the purchased offsets. In so doing, the buyer is assured of both the quality of the purchased offsets (as only offsets that meet the registry’s standards are transacted) and their ownership of the offsets, since they are deposited directly into the purchaser’s account<sup>2</sup>.

There is no one single registry for the voluntary market. Registries for the voluntary market have been developed by governments, non-profits, and the private sector. Some of the registries are tied to certain standards, whereas others function independently<sup>3</sup>.

When transactions occur without a registry administration, providers and buyers must find other ways to ensure the integrity of the delivery process. Since offsets have no physical form, buyers must obtain all rights and titles to the emission reduction and assurance that the provider did not and will not double-sell the offsets. This confirmation usually takes the form of a “transfer of title and ownership” document signed by the provider. However, unless the provider engages an independent third party to verify its internal processes, the buyer cannot be sure that the provider has truly retired the stated amount of offsets. This form of delivery is often time consuming, may require extensive negotiations, and demands a great

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<sup>1</sup> Reproduced from Kollmuss A, Zink H, & Polycarp C., Making Sense of the Voluntary Carbon Market – A Comparison of Carbon Offset Standards (2008), WWF Germany.

<sup>2</sup> Reproduced from Kollmuss A, Zink H, & Polycarp C., Making Sense of the Voluntary Carbon Market – A Comparison of Carbon Offset Standards (2008), WWF Germany.

<sup>3</sup> Ibid

deal of know-how on the part of the buyer. It is therefore only suitable for deliveries of large quantities of offsets<sup>1</sup>.

### **Retirement Timeframes**

Where councils purchase carbon offsets in order to address the impact of their operations (or a specific portion of their operations) they should ensure that the offsets are retired within their registry (or that of the provider) in accordance with a relevant timeframe. Normally offsets will be purchased to address the measured emissions profile (or part thereof) according to the 12 month period for which the footprint was undertaken. This is dealt with specifically by Section 5.2 (p. 14) of the NCOS, which states:

Organisations should voluntarily surrender and retire into a registry the equivalent number of eligible units to offset the total emissions associated with an product or organisation (or specified part of an organisation [in order to achieve carbon neutrality under the programme])

Whilst there is no direct reference to the timeframe within which this process should occur, BalanceCarbon® recommends that offsets are purchased and retired within four months of completing the GHG footprint or prior to making a carbon claim (whichever is sooner).

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<sup>1</sup> Reproduced from Kollmuss A, Zink H, & Polycarp C., Making Sense of the Voluntary Carbon Market – A Comparison of Carbon Offset Standards (2008), WWF Germany.

## 8. Useful links and additional resources

These links are intended as a guide only and in no way express approval or recommendation by BalanceCarbon® of the content or products provided by the external sources below. You should note that the list below is not exhaustive and we recommend you conduct your own independent research into your particular needs.

Name	Details	Link
A consumer's guide to retail carbon offset providers	This guide was developed by US non government organisation <i>Clean Air Cool Planet</i> for consumers of retail offset providers. Includes questions to ask offset providers. Released December 2006.	<a href="http://www.cleanair-coolplanet.org/">http://www.cleanair-coolplanet.org/</a>
Carbon Catalog	Carbon Catalog is a free and independent directory of carbon credits, listing carbon providers and projects worldwide.	<a href="http://www.carboncatalog.org">www.carboncatalog.org</a>
Carbon Offset Guide Australia	The Carbon Offset Guide is an independent directory of Australian carbon offset providers developed through a partnership between EPA Victoria and Global Sustainability at the Royal Melbourne Institute of Technology (RMIT). It is a resource for businesses, government agencies, NGO's and individuals seeking information about carbon offsets.	<a href="http://www.carbonoffsetguide.com.au">www.carbonoffsetguide.com.au</a>
Carbon offset providers in Australia 2007 (Global Sustainability Institute website)	The Global Sustainability Institute at RMIT developed a summary of the Australian offset market for businesses looking to purchase offsets. Released April 2007. This information has recently been updated on the Carbon Offset Guide website	<a href="http://www.rmit.edu.au/sustainability">http://www.rmit.edu.au/sustainability</a>
Carbon Trust 3 stage approach to developing a robust offset strategy	Guide developed to assist buyers to objectively assess the quality of offsets and construct a carbon neutral scheme. The Carbon Trust is an independent company set up by UK governments to meet climate change obligations. Released in 2006	<a href="http://www.carbontrust.co.uk/publications/pages/home.aspx">http://www.carbontrust.co.uk/publications/pages/home.aspx</a>
Golden Pages Market Listings	The Golden Pages is an online listing of firms, non-profit organisations and government entities that buy and sell Gold Standard carbon credits and provide services and products for the Gold Standard market.	<a href="http://www.cdmgoldstandard.org">www.cdmgoldstandard.org</a>

Name	Details	Link
Making Sense of the Voluntary Carbon Market: A Comparison of Carbon Offset Standards	Provides an overview and guide to the most important currently available standards, using the Clean Development Mechanism (CDM) as a benchmark. The report compares the standards side-by-side and outlines the most pertinent aspects of each.	<a href="http://assets.panda.org/downloads/vcm_report_final.pdf">http://assets.panda.org/downloads/vcm_report_final.pdf</a>
State of the Voluntary Carbon Market 2008	An overview of the voluntary carbon market, with particular emphasis on the US market. The report includes data on sales of offset credits by type, region, etc. Developed by UK firm <i>New Carbon Finance</i> and US firm <i>Ecosystem Marketplace</i> , the report was released in July 2007.	<a href="http://ecosystemmarketplace.com/documents/cms_documents/2008_StateofVoluntaryCarbonMarket.4.pdf">http://ecosystemmarketplace.com/documents/cms_documents/2008_StateofVoluntaryCarbonMarket.4.pdf</a>
UK House of Commons Environmental Audit Committee report on the voluntary carbon market	The UK House of Commons Environmental Audit Committee conducted a broad-ranging inquiry into the voluntary carbon market during 2006-07. The report provides a comprehensive review of issues relating this market, and contains a number of recommendations and suggestions for the UK Government. Released in July 2007.	<a href="http://www.publications.parliament.uk/pa/cm200607/cmselect/cmenvaud/331/331.pdf">http://www.publications.parliament.uk/pa/cm200607/cmselect/cmenvaud/331/331.pdf</a>
UNFCCC CDM Bazaar	The UNFCCC CDM Bazaar is a web-based facility which links buyers, sellers and service providers for Clean Development Mechanism (CDM) offsets.	<a href="http://www.cdmbazaar.net">www.cdmbazaar.net</a>
The Voluntary Carbon Standard (VCS) Project Database	The Voluntary Carbon Standard Project Database is the Voluntary Carbon Standard Association's (VCSA) centralised source of information regarding all approved projects and Voluntary Carbon Units (VCUs) issued under the VCS Program.	<a href="http://www.vcsprojectdatabase.org">www.vcsprojectdatabase.org</a>

Reproduced from EPA Victoria, 'I want to find out more about carbon offsets – what other resources are available?' (2008)  
<http://www.epa.vic.gov.au/climate-change/carbon-offsets/other-resources.asp>

## Appendix A - Local Government Carbon Offset Checklist

Purchasing offsets in the carbon market can be a daunting task. Many Local Governments are concerned about what they are actually buying and what standards they meet. It is important to take the time to ensure the offsets that your council purchases are robust and equivalent to the emissions you are seeking to address.

Broadly, councils should look for offset products that:

- Are accredited according to a recognised national or international standard
- Were independently verified
- Provide other ancillary environmental benefits

Councils should also ask for documentation demonstrating that the offsets are robust.

Below is a checklist for purchasing carbon offsets to assist councils in making more informed decisions regarding their planned investment.

Before investigating offsets		
Question	Y/N	Notes
1. Have you considered cost-effective avoidance and reduction opportunities within your council's operations? Offset purchases should be used as one part of a council's carbon management strategy based on the Carbon Management Principles (Figure 1).		
2. What are your primary objectives for purchasing offsets?		
3. What level of certainty do you need so that you can credibly claim that you have achieved your carbon management objectives (for example, going carbon neutral)? Is reputational risk an issue?		
4. How constrained are you by offset costs? At present, offsets can range from less than \$10 up to \$55 per tonne of carbon dioxide equivalents.		

<p>5. Do you have a preference for a certain type of project (such as renewable energy versus forestry) or project location (domestic versus international)? Are you looking for co-benefits from the projects, such as biodiversity benefits from Biosequestration or public or staff education benefits from the installation of new, energy-efficient technologies?</p>		
<b>When investigating offset products</b>		
<b>Question</b>	<b>Y/N</b>	<b>Notes</b>
<p>6. Is it clear what you are being offered? For example, does the offset provider specify the source of the emissions reduction? Can you select credits from a specific project as opposed to receiving credits rising from an unspecified portfolio of projects?</p>		
<p>7. Can the offset provider demonstrate that the offsets meet your quality requirements? For example, would the project(s) have happened without the GHG offset market? Can they demonstrate that the same offsets are not sold to multiple buyers?</p>		
<p>8. Have the offsets been generated in line with a recognised standard or regulation? Have the offsets been verified by a credible third party?</p>		
<p>9. Does the offset provider sell offsets that will accrue in the future? If so, how long into the future, and can they explain why they need to "forward sell" the offsets? How will they compensate or make good if the project doesn't deliver the expected emissions reductions?</p>		
<p>10. Does the provider give additional information to buyers about climate change and the impact of greenhouse gas emissions? Does the provider offer information about other carbon management actions, such as avoiding and reducing your council's own emissions?</p>		

### After purchasing offsets

- Continue to review your carbon management strategy. In most instances, onsite reductions are the most cost-effective way to achieve your organisation's goals or targets.
- Communicate your actions. Let your staff, stakeholders and customers know the steps you took to purchase your offsets. Be transparent about which standards or accreditation processes apply to the offsets purchased.

Adapted from EPA Victoria, 'Tips for purchasing carbon offsets' (2007)