



CARBON REDUCTION INSTITUTE

Carbon Credit Purchasing Guide for NoCO2 Clients

Version 1.0, July 2008



Carbon Reduction Institute Pty Ltd 13, 38-46 Albany Street- St Leonards – NSW - 2065
P: +61 2 9439 9990 - F: +61 2 9439 5550 - W: www.noco2.com.au ABN 26 122 969 233

About

This guide has been produced by the Carbon Reduction Institute (CRI) to inform and provide its clients with assistance regarding the purchase of carbon credits. It is the intention that the guide will be updated with the introduction of new greenhouse gas programmes and where the prices for credits fluctuate outside of the ranges provided.

Clients within the NoCO2 certification program must purchase credits that adhere to minimum standards outlined within this document. Whilst we'll endeavour to provide clients with the best value credit, for numerous reasons, they may elect to purchase their credits elsewhere. To ensure these credits comply with our standards, we provide guidance and information below regarding the many different carbon credit accreditation programmes; where these credits can be purchased and whether they comply against our minimum standards.

CRI has had experience trading many different types of credits; selling compliance and voluntary units to power companies, SMEs and sole franchisors. Unless referenced or otherwise stated, price ranges provided within this document are indicative only and have been collated through a range of private communications through brokers, and regular review of exchanges. CRI will review and update this document periodically; specific amendment requests can be made by emailing CRI directly at info@noco2.com.au

Where a retail price for a credit is listed and referenced from a company's website, the credit can potentially be sourced cheaper by contacting them directly if a meaningful volume of credits is required (typically, greater than 100).

Carbon Credits

Carbon Credits are a mechanism that allows organisations to fund and trade climate change actions on an open market. Each carbon credit represents one tonne of carbon dioxide or its greenhouse gas equivalent (CO₂-e) reduced or saved from entering the atmosphere. Organisations that purchase carbon credits are essentially outsourcing their emissions reduction requirements – each credit that is purchased removes a tonne of greenhouse gas from the organisation's greenhouse gas inventory. If enough credits are purchased, the greenhouse gas inventory will be reduced to zero, allowing that organisation to market itself as carbon neutral.

Carbon credits come from a range of projects that reduce emissions; examples include energy efficiency and renewable energy programs (that reduce the amount of fossil fuels mined and combusted for energy), methane destruction/avoidance projects (composting and flaring), sequestration projects (through afforestation) as well as projects that avoid greenhouse gases (such as Nitrous Oxide and HCFCs and PFCs in manufacturing processes).

Whilst some projects may never verify the emissions that they reduce, there are a number of programs that outline standards for validating and verifying the emission reductions created by projects. Project accreditation gives comfort to the buyer in that there is guarantee that the project meets a minimum standard.

Unfortunately, many of these programs have differing standards for ensuring the veracity of the carbon savings deemed from the projects that they accredit. This is why CRI always maintains that

it is the project and not the accreditation program that must be judged in order to determine whether a credit is suitable.

The section below outlines minimum standards that carbon credits must meet to be valid under CRI's NoCO2 certification program. We recommend that clients contact us prior to purchasing carbon credits to ensure that their projects meet our standards. For all credits that we authorise, we will provide a summary of how the project stacks up against the standards outlined below.

Standards for Carbon Credit Projects

It is important that carbon credit projects are tested against standards to ensure that the buyer can be sure that they are funding a reduction of greenhouse gas from the atmosphere that would not otherwise have occurred. Any carbon credit used by an organisation to meet emission reduction requirements under the NoCO2 certification program must meet the following standards.

1. Financially additional

For a carbon credit to be financially additional, the money from the credits must have been required to make the project happen beyond business as usual. Projects often fail this where they are cheaper than their more polluting equivalent, or their energy savings pays back in time frames that make it a 'business as usual' proposition.

2. Environmentally additional

The project must be additional to the environment. Carbon Credits can not be claimed on projects that would have occurred anyway. A good example being the natural growth of a forest or the implementation of an activity that would have occurred anyway through legislation or through a shift in market demand.

3. Permanent

Permanence is a very important requirement for a voluntary credit. Carbon savings that have been forward claimed or carbon emissions that have been stored can present a liability risk for any party using them to make a claim. If the emissions fail to happen, or are released into the atmosphere, and the project proponent does not make good this reduction, then the liability may fall back on the purchaser who made a claim to rectify the issue.

4. Leakage

Leakage is where a project results in an increase of emissions elsewhere. This is a major risk in avoided deforestation projects where the removal of one section of forest product from the market encourages the destruction of forest in another due to inelastic demand.

5. Validated and Verified Savings

The project must use a methodology that conservatively quantifies its emissions reductions through a scientifically valid approach. The project must be audited by an independent 3rd party to quantify the number of tonnes of greenhouse gas that it has saved. This can occur through ISO 14064.3 and 14065; through a GHG program, or through using an approved methodology from a GHG Program.

Any credit from projects that satisfy the 5 criteria above can be used within the NoCO2 certification program.

The following section provides a summary of 5 different GHG Programmes: Greenhouse Friendly, the Clean Development Mechanism, the Carbon Reduction Scheme, the NSW Greenhouse Gas Reduction Scheme and the Voluntary Carbon Standard. The section outlines any issues that projects accredited under these programs face in meeting the 5 criteria listed above; we also provide the details of providers of the above credits and the prices, correct as at 21st July 2008.

The handbook also provides advice for purchase of VERs accredited under other labels or through ISO 14064 and ISO 14065.

Greenhouse Friendly™

The Greenhouse Friendly program is a federal government accreditation program that provides quantification and verification for carbon savings made by projects that reduce greenhouse gas emissions within Australia.

Compliance Issues for NoCO2 Clients: Accreditation of a project through the Australian federal government's Greenhouse Friendly scheme does not necessarily mean that the project's credits can be used for NoCO2 certification. Whilst CRI does not have concerns about the compliance of credits from composting, landfill gas combustion, waste gas combustion and fuel switching, there are concerns about its forestry projects and its energy efficient light bulb projects.

Forestry projects guarantee carbon savings for 70 years rather than the industry accepted average of 100 years (which aligns with the industry average for deeming the radiative forcing effects from an amount of carbon dioxide over its life cycle in the atmosphere). It is unclear why the program uses this methodology – project proponents will have to verify how this affects the veracity of their carbon saving calculations. Furthermore, as the carbon savings from these projects can be reversed, the credits carry a liability in the case where the carbon is released, and the project proponent does not make good the re-sequestration savings. NoCO2 certified clients must acknowledge responsibility for this liability if using forestry credits for their NoCO2 certification claim.

Light-bulb installation projects under Greenhouse Friendly cannot be claimed as a reduction under the NoCO2 certification program in any instance. The GHF program allows for the full lifecycle greenhouse gas savings made by the installation of a 15,000 hour energy saving light bulb in place of an incandescent to be claimed upfront at the time of installation. At an average of 4 hours of usage per globe per day (which is very generous, CRI's experience at the coal face of such projects is that many of the lights replaced will be in obsolete and non-heavily utilised areas) the lights will last for around 10 years. Given that the federal government has legislated a ban on the retail of the inefficient bulbs by 2010, and allowing a further 1,000 hours of bulb lifetime for any incandescent bulbs purchase on the cut off date, then this means that there are around 10,000 hours, or 7 years of the bulb's life where non additional carbon savings are being claimed.

According to the new rules from ACCC, there are serious implications for using such credits for a marketing claim and the Greenhouse Friendly department should provide clarification to its own clients as to why these credits are legitimate for offsetting purposes.

The Greenhouse Friendly low flow showerhead projects allows 3 years of lifecycle greenhouse gas savings (resulting from energy savings from reduced energy to heat water) to be claimed in the first 3 years. This project's savings claim does not appear threatened by legislation and is therefore

suitable for use within the certification scheme. However, if the installation of these units becomes mandated in existing homes (they already are mandated in most states for new homes) then the additionality of credits these will be threatened. Purchasers of showerhead credits acknowledge that they may have to make good any emissions liability where showerhead credits fail to be additional due to mandated uptake of showerheads, and or market shifts in the uptake of water saving showerheads.

A potential problem exists in sourcing showerhead credits, as most providers have accredited this project as part of its energy saving lightbulb project, and so the credits may be issued together, making the separation of these credits difficult.

Retailers and Prices (as at 21 July 2008): CRI retails Greenhouse Friendly composting credits through online calculators at \$18 plus GST and may offer these to its NoCO2 clients subject to availability.

Other potential providers can be located at:

<http://www.greenhouse.gov.au/greenhousefriendly/abatement/projects.html>

NSW Greenhouse Gas Reduction Scheme

The NSW GGRS is a cap and trade system binding large electricity generators to emissions caps. Large users of electricity can volunteer to partake in the scheme also. The caps are set on a TCO₂-e per capita basis and the absolute caps applied to the participants are determined by the share of generation/usage of the site compared to the state as a whole.

To meet compliance under the scheme, the sites can reduce their emissions through onsite activities, or through purchasing NSW Greenhouse Gas Abatement Certificates (NGACs). NGACs can be made through reducing emissions intensity of generation; through energy efficiency, forestry and through combustion of landfill gas for electricity.

Compliance Issues for NoCO2 clients: NGACs from energy efficient light bulbs face the same issues as those under Greenhouse Friendly and are therefore not included. These credits were used in the early stages of the NoCO2 certification scheme, though when the Labor government reaffirmed Turnbull's stance on the banning of the bulb, then the light bulb NGAC was no longer offered to clients and has been banned for acquittal as an offset under the NoCO2 scheme for the 2008/2009 financial year.

Forestry NGACs do not require additionality assessment nor assessment against leakage. Any client wishing to use these credits should ask their provider to describe how the projects are additional and whether they address issues of leakage. For example, a large number of credits created under this scheme are from forests planted by Forests NSW between 1996 and 2000 – before the NSW scheme had been designed. In 2005, the NSW scheme permitted carbon sequestered in post 1990 NSW forests to be tradable in the scheme. However, when Forests NSW trades this carbon into the GGAS scheme, one must look at the effects of this against the hypothetical business as usual situations. Forests NSW's business as usual mandate is to manage forests sustainability, and so there are 2 main outcomes from their management practices; the first that part of the timber would be harvested and sold at a sustainable rate. The second; that the timber would remain unharvested. In the second instance, there can be no additional carbon claim as it would have happened as a matter of business as usual activity.

Assuming the first of these instances to be true, Forests NSW will withdraw (i.e. not harvest and supply) a timber product from the market to lock up the carbon that is eventually traded. As this timber will have been harvested sustainably, one can assume that it is carbon neutral, as it will be replanted as part of Forest NSW's business as usual mandate. The withdrawal of this carbon neutral product from the market means that another timber product will be supplied to replace it. In this instance, there is potential for leakage, as the product replacing it may have come from an unsustainably managed resource.

The only perceivable way to avoid this problem is to ensure the delivery of a sustainably managed forestry product to replace the demand created through the withdrawal of the initial timber product that was taken from the market for carbon sequestration purposes.

Price: NGACs from energy saving lightbulbs can currently be purchased from the spot market for around \$7.50 and have traded historically between \$5 and \$14. Forestry NGACs have been known to trade at around \$16 – driven by speculation of their fungibility into the Australian ETS. The recommendation to not permit early action credits into the Australian ETS may see the price fall on these. Forestry NGACs have traded historically between \$6 and \$16. The NSW GGRS also accredits showerhead replacement projects, though these are bundled under the umbrella of “Demand Side Abatement Projects” and are therefore difficult to separate from credits created from light bulb installation projects which fall under the same umbrella.

Retail Price: Neco sells Lightbulb NGACs for \$18¹; Carbon Planet sells forestry and its Lightbulb/Showerhead credits for \$25.²

The Clean Development Mechanism

Description: Kyoto ratified countries and their major polluters can meet their mandated emission caps through the purchase of carbon credits created in developing countries. The CDM is an accreditation program that allows project proponents that register carbon savings from projects in developing countries to validate/verify and register the carbon savings from their projects and trade them. The credits created under the CDM are called CERs – Certified Emission Reductions. The CDM is administered by the UN.

Compliance Issues for NoCO2 clients: In principle, all CERs can be used within the NoCO2 certification scheme, though clients interested in doing this should check with CRI first. In instances where the carbon savings from a CDM credit can be reversed (forestry CDM), the client may have to make good any reversed carbon saving should the project proponent fail to do so on their behalf.

Prices: Secondary CERs can trade from 16 – 25 Euros. They are available from TFS Brokers and other major carbon brokers.

¹ Neco. Online Resource. Viewed 22nd July 2008. Available at: <http://www.neco.com.au/product.asp?PID=1106&cID=152>

² Carbon Planet. Online resource, viewed 22nd July 2008. Available at: <http://www.carbonplanet.com/shop/packages>

The Voluntary Carbon Standard

Launched by the Climate Group in 2005, the VCS provides validation and verification for projects that reduce greenhouse gas emissions. It accepts projects that have applied CDM methodologies, as well as those that have been double verified against their own 'VCS Standard,' which is largely referenced from ISO 14064.2. The VCS is used by many CDM project developers to claim carbon credits from projects that commenced prior to their official CDM registration date. As VCS units are much cheaper than CDM units, most projects only claim VCS units for the time up until their CDM registration.

Compliance Issues for NoCO₂ clients: In principle, all VCS units can be used within the NoCO₂ certification scheme, though clients interested in doing this should check with CRI first. In instances where the carbon savings from a VCS credit can be reversed (forestry CDM), the client may have to make good any reversed carbon saving should the project proponent fail to do so on their behalf.

Prices: VCS units range in price from \$4 US on the wholesale market for 'old vintage' hydro – circa 2002, to up \$12 US for 'sexier', more marketable credits such as those created from wind farms. As these credits are bought wholesale, when retailed, they typically fetch around \$25.30 inc GST (Climate Friendly's current retail price)³ or \$23 USD through Cleaner Climate's calculator.⁴

The Gold Standard

The Gold Standard is an accreditation for carbon credits (be they CERs or credits used for voluntary offsetting) that ensure that the project proponent has consulted the community in the planning of the project; and that the projects deliver positive outcomes for the communities and local environments that they work within.

Compliance Issues for NoCO₂ clients: In principle, all GS units can be used within the NoCO₂ certification scheme, though clients interested in doing this should check with CRI first. In instances where the carbon savings from a GS credit can be reversed (forestry CDM), the client may have to make good any reversed carbon saving should the project proponent fail to do so on their behalf.

Of particular interest - the Te Apiti Wind Farm in NZ was one of the first projects delivering Gold Standard credits. The Wind Farm was developed by Meridian Energy and was accredited to create carbon credits under the Gold Standard since 2005.⁵ However, Meridian Energy have announced that they are carbon neutral⁶ as they are electricity generation company, then they have a business as usual mandate to operate at zero emissions. Hence, any new generation is required through their mandate to carry zero emissions and therefore, any credits claimed from their zero emissions power plants require explanation as to how they are beyond business as usual for the company.

³ Climate Friendly (2008), Online resource, viewed 21 July 2008. Available at: <https://climatefriendly.com/shop>

⁴ Cleaner Climate (2008), Online resource, viewed 21 July 2008. Available at: http://www.cleanerclimate.com/index.php?option=com_custompages&Itemid=54

⁵ Gold Standard Registry, APX (2008), Online resource, viewed 22 July 2008. Available via subscription at: <https://gs1.apx.com/mymodule/ProjectDoc/EditProjectDoc.asp?id1=338>

⁶ Meridian Energy (2007), Online resource, viewed 22 July 2008. Available at: <http://www.meridianenergy.co.nz/AboutUs/News/Meridian+Energy+first+NZ+energy+company+to+have+certified+carbon+neutral+electricity+.htm>

The Carbon Reduction Scheme (CRS)

The Carbon Reduction Scheme is administered by Origin Energy and is an accreditation program for the verification and validation of emission reduction projects. Many of the credits from within the CRS are created from projects carried out by Origin Energy themselves.

Compliance Issues for NoCO2 clients: According to its website, The Carbon Reduction Scheme accredits projects that follow the frameworks of a number of suitable schemes (ISO 14064.2-3 and ISO 14065, the VCS, CDM), and a few (namely the NSW GGRS and GHF scheme) that do not meet our criteria.⁷

Clients that wish to use credits from the CRS will be required to obtain appraisal from Origin Energy (or the project proponent if not Origin Energy) as to how the projects comply with CRI's 5 criteria. CRI will also require a comment from the auditor to verify (or the project proponent if not Origin Energy) the project's compliance with the 5 criteria above, or the auditing framework applied when verifying the emissions savings delivered from the credits. CRS will also be required to provide a notice of surrender/acquittal/retirement of the credits that it retails to ensure that the credits are not re-sold.

Price: \$17.25 (inc GST) through its online calculator.⁸ Though the calculator does not appear to make clear the project that the purchase actually supports, and so we recommend that our clients enquire to the CRS to ask which credits the purchase supports.

⁷ Origin Energy, 2008, Carbon Reduction Scheme Website. Online resource, viewed 21 July 2008. Available at: <http://www.originenergy.com.au/CRS>

⁸ Origin Energy, 2008, Carbon Calculator Website. Online resource, viewed 21 July 2008. Available at: http://www.originenergy.com.au/carbon/?_qf_p1_display=true&p=