



# THE VOLUNTARY CARBON OFFSET MARKET IN AUSTRALIA

**Alternative Technology Association  
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# Outline

- Mandatory carbon trading market
- Voluntary Offsets Market
- Role of offsetting
- Voluntary Market vs Emissions Trading Scheme



# What is a Carbon Offset?

A carbon offset is an investment in a project or activity that:

- reduces greenhouse gas emissions from the atmosphere (carbon abatement); or
- Sequesters / stores carbon from the atmosphere (carbon sink),

which is used to compensate for the greenhouse gas emissions generated from another activity, project or business.

So, a purchaser buys a carbon offset to counterbalance the purchaser's own carbon footprint.

# Mandatory Emissions Trading

- International
  - EU Trading scheme
- Australia
  - NSW Greenhouse Gas Abatement Scheme (GGAS)
    - Being phased out with the development of Australian Trading Scheme
  - Carbon Pollution Reduction Scheme: Emissions Trading
    - Green Paper released recently
    - Proposed introduction in 2010

# Voluntary Offsets Market

- Anything that exists outside the regulated schemes
  - Chicago Climate Exchange
  - Australian Carbon Exchange
  - “Over the counter” transactions

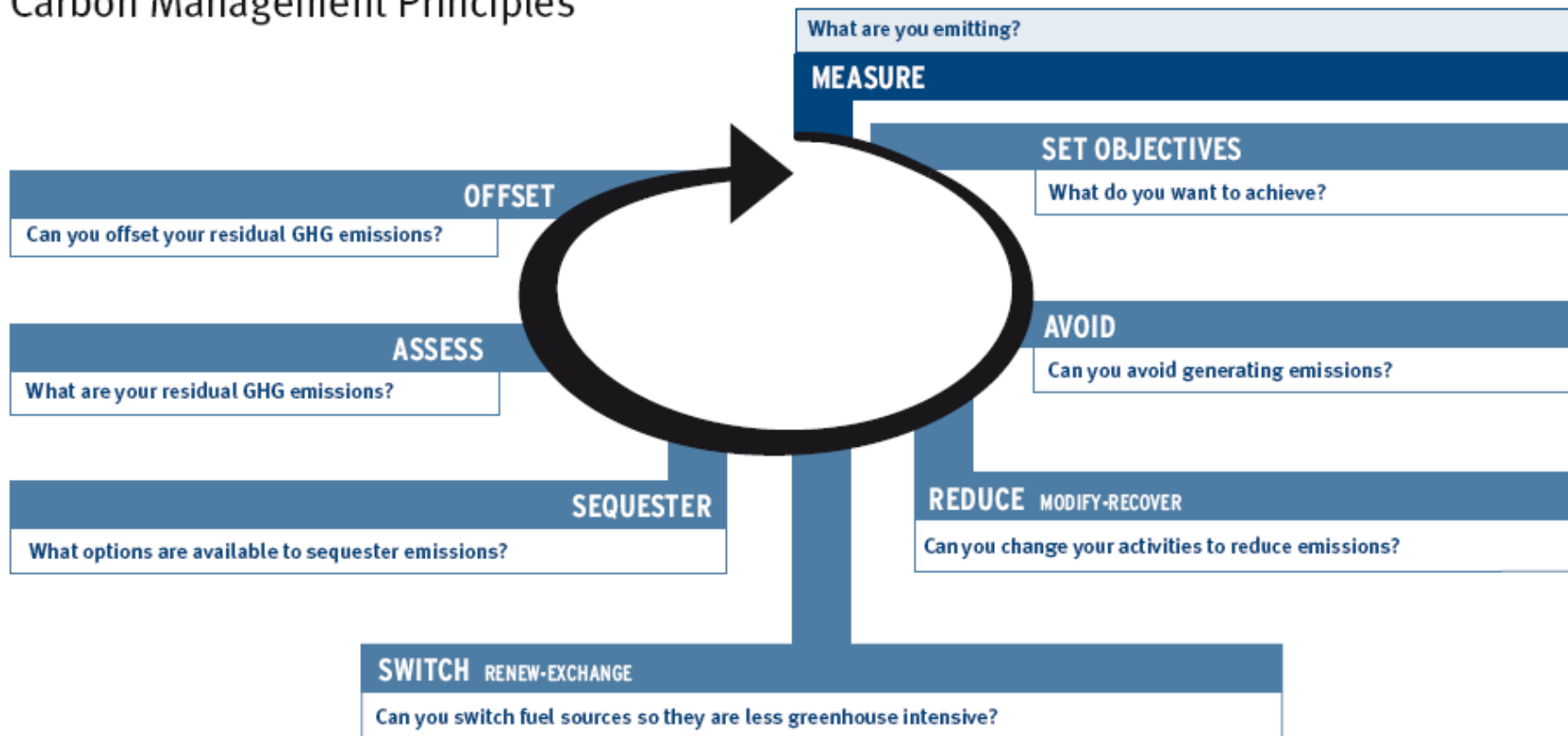
# The role of Carbon Offsets

- Offsets are only a part of an effective carbon management strategy
- Should only offset **residual** offsets
  - That cannot be otherwise presently avoided or reduced
- Otherwise an organisation is not contributing to overall reduction in greenhouse gases



# Carbon Management Principles

## Carbon Management Principles



[www.epa.vic.gov.au/greenhouse/](http://www.epa.vic.gov.au/greenhouse/)

# Reasons for offset purchases

- Part of carbon management strategy
- meeting Corporate Social Responsibility goals
- preparing for an emissions trading scheme
- engaging and retaining employees
- differentiating products and/or services in the market (e.g. “carbon neutrality”)
- attracting investors

# What is normally offset?

- “Scope 1” direct emissions
  - Emissions from manufacturing or office operations
- “Scope 2” indirect emissions
  - Emissions from energy purchased for business operations
  - Note: another approach is to purchase green power
- Often “Scope 3” indirect emissions
  - Staff travel – eg flights
  - Fleet vehicle emissions
  - Events

# Voluntary Carbon Offsets Market

- International market: Clean Development Mechanism (CDM)
  - Technology transfer to developing countries
  - Credits created under CDM are Certified Emission Reductions (CERs)
  - Can be used as offsets by Australian businesses
- Australian market:
  - Preference thus far by Australian businesses to buy offsets sourced from local projects

# Carbon Offsets

- Offsets are usually measured in tonnes of CO<sub>2</sub> equivalents (CO<sub>2</sub>-e)
- Key principle is that one tonne of carbon emitted should be equivalent to one tonne of carbon abated or sequestered

# Types of Offsets

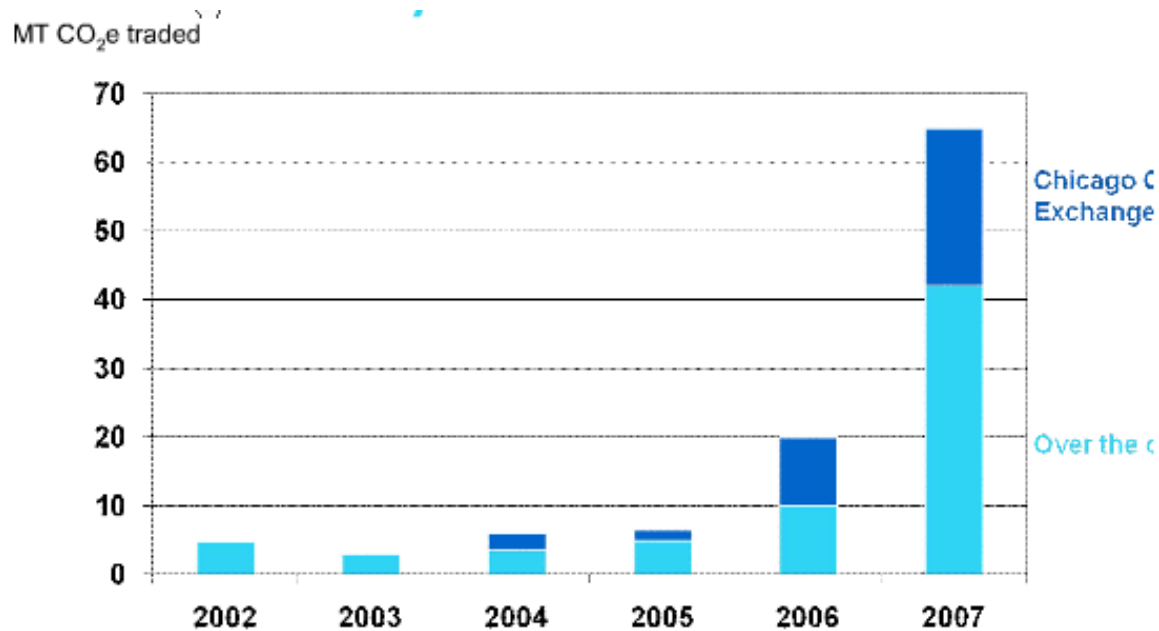
- Energy Efficiency (abatement)
  - Major upgrades of manufacturing processes to distribution of energy efficient products (eg compact fluoros)
- Renewable Energy (abatement)
  - Wind, solar, biomass and other renewable energy sources, which help to reduce reliance on fossil fuel based sources
- Greenhouse gas destruction or capture
  - Usually located at industrial sites: eg methane flaring at landfill sites or destruction of HFCs in industrial processes
- Biosequestration (sink)
  - Soil
  - Forestry
- Avoided deforestation (preservation of sinks)
  - Particularly important in developing countries – eg Indonesia

# Types of Offsets

- Value judgments underpin selection of the appropriate offset
  - E.g many prefer not to purchase forestry offsets because
    - they are sinks for existing emissions, rather than mechanisms to avoid/ reduce emissions or to build capacity to substitute for fossil fuels; and
    - There are inherent risks of trees surviving
- Regardless, the overarching issue is **Quality** of offsets:
  - Addressing key issues associated with each offset type
  - Standards
  - Accreditation

# Growth of global voluntary markets

- An average growth rate of 67% per annum between 2002 and 2007



\* Excludes large conservation projects run by NGOs

Source: State of the Voluntary Carbon Markets 2007 – Picking Up Steam (New Carbon Finance)

# Key Offset Issues

- **Additionality**
  - To be valid, a project producing an offset must be additional to “Business as Usual” (ie what would have occurred anyway)
  - Financial additionality
  - Regulatory additionality
  - Environmental additionality
- **Key Question for purchasers:**
  - Can the provider demonstrate that the project would have happened anyway, without the offset market?

# Key Offset Issues

- **Permanence**
  - Offsets might not be secure or may involve a range of risks
  - Eg forestry: risk of fire, pest infestation, unauthorised logging which would release carbon into atmosphere
  - **Forward selling** of any offset type involves risk that the project might not eventuate – due to regulation, or future events (eg fire)
  - Need guarantees of monitoring over time and insurance in place to cover risk
- **Key Questions for purchasers:**
  - Will the actual GHG offsets accrue in the future or immediately? If in the future, how long into the future?
  - How will provider make good if the project doesn't deliver the expected reductions? Eg do they provide replacement credits from reserved offset projects?

# Key Offset Issues

- **Leakage**
  - Adverse changes to emissions that take place beyond the boundary of a project, but are caused by the project activity
  - Eg an avoided deforestation project that merely results in deforestation in another area instead
  - Or emissions from project operations (eg energy use, transport) that could increase overall net emissions beyond claimed reductions
- **Key Question for purchasers:**
  - Have project emissions been taken into account in calculating the NET emission reductions for the project?

# Key Offset Issues

- **Double Counting**
  - Can occur when 2 or more businesses claim the same emissions reduction
  - Need to be able to trace the provenance of an offset, eg through serial numbers
  - Offsets that are not to be on-sold by the purchaser should be retired or acquitted through a formal process, such as a registry
- **Key Question for purchasers:**
  - Can the provider demonstrate that the offset credit will not be sold to multiple buyers? Do they have a registry?

# Key Offset Issues

- Verification and Certification is critical
  - Ensures certainty amongst consumers that emission reductions have/ will actually occur
  - Certification against a recognised standard addresses many of the above Key Issues
  - Verifiers should be credible third parties with appropriate credentials and should evaluate the project based on explicit criteria in standards
- This is a key issue for consumers
- There is confusion between certification of providers vs actual available offsets

# Standards in the Voluntary Market

## International

Standard	Objectives	Project types	Entities involved	Registry
Fully fledged standards				
<b>Gold standard</b>	Screen projects for sustainable development co-benefits	Only includes renewable energy and energy efficiency	WWF & 23 other NGO's	In place
<b>Gold Standard VER+</b>	Apply CDM methodologies to project types outside CDM	Excludes REDD, new HFC, nuclear and large hydro	TUV SUD	In place
<b>Voluntary Carbon Standard</b>	Create a basic 'quality threshold' in the voluntary market	Excludes new HFC	The Climate Group IETA WEF	Planned
Biosequestration standards				
<b>CCBS</b>	Encourage positive social and environmental outcomes for land based projects	Land based projects only	CCBA	Not relevant
<b>Plan Vivo</b>	Promote sustainable livelihoods in rural communities	Community based agro-forestry	ECCM BioClimate R&D	Not relevant

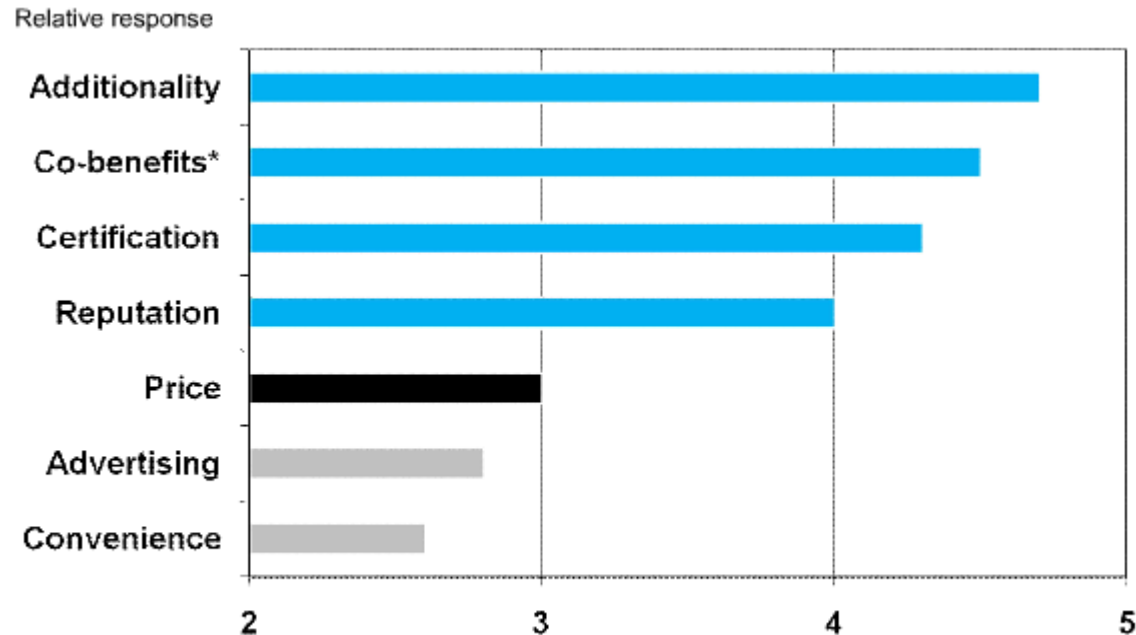
# Standards in the Voluntary Market

## Australia

Standard	Objectives	Project types	Entities involved	Registry
Australian Government sponsored standards				
<b>Greenhouse Friendly Abatement Verification Guidelines</b>	To certify approved abatement projects	Includes all offset types	Australian Government Department of Climate Change	No
<b>NSW GGAS</b>	Creates accredited abatement certificates	Renewable Energy/ Energy Efficiency	NSW Government	In place
Private / proprietary standards				
<b>Origin Energy Carbon Reduction Scheme</b>	Developed by Origin Energy to certify its own Offset program	Renewable energy and low emissions technology projects only	Origin Energy	Not relevant – not public

# Buyer preferences

Quality more important than price



Source: State of the Voluntary Carbon Markets 2007 – Picking Up Steam (New Carbon Finance)

\* Co-benefits are local environmental and social benefits of the offset generating project

# Carbon Offset Guide

## Carbon Offset Guide Australia

Helping you find and choose carbon offsets

[Home](#) | [About](#) | [Summary](#) | [Search](#) | [Subscribe](#) | [Comments](#) | [New Providers](#)



### Summary of Providers

an independent directory of Australian carbon offset providers (October 2007)



### Search for Providers

find carbon offset providers that meet your requirements

[Contact Us](#) | [Disclaimer](#) | [Login](#)



A resource provided by:




# Carbon Offset Guide

- The aim of the website is to provide an **authoritative, independent directory of Australian carbon offset providers.**
- It has improved the understanding of the offset market by Australian businesses, as well as the quality and transparency of information being supplied by providers
- It assists consumers make an informed choice about their offset purchases in an extremely dynamic, competitive and confusing market.
- We provide a glossary of terms to navigate through the jargon.

# Carbon Offset Guide

- The information presented in the Carbon Offset Guide website is **reviewed every 3 months**. New providers are added to the website at this time, and information for old providers updated.
- We now include both retailers and brokers of offsets – both are “over the counter”.
- We are currently increasing the scope of information offered – eg carbon management services

# Carbon Offset Guide – summary page

Provider	Provider Type	Offset Product(s) Available <small>(The accreditations below do not necessarily apply to all products sold by the provider. See the provider's page for details)</small>	Price <small>(Per tonne of CO2e unless stated otherwise)</small>	Project Location	Project Type 
<b>AGL</b>	Retailer, Project developer	NSW Greenhouse Abatement Scheme, Greenhouse Friendly	Volume dependent. Large volume sales only.	Australia	Methane
<b>ANZ</b>	Retailer, Broker / Trader	Brokerage and trading services can source various accredited offsets	AU\$10 - AU\$18	Various	Brokerage and trading services can source various offset types
<b>Ark Climate</b>	Broker / Trader, Retailer	NSW Greenhouse Abatement Scheme, Brokerage and trading services can source various accredited offsets	AU\$9 - AU\$18	Various, Australia	Forestry, Renewable, Brokerage and trading services can source various offset types

# Carbon Offset Guide – provider page

Detailed data on:

- Products
  - Quality
  - Calculation Methods
- Projects
  - Business Model
  - Accreditation status

**Ark Climate**

**Summary** Primary activity: [Broker / Trader](#) Additional activity: [Retailer](#)

**Price (per tonne CO<sub>2</sub>e) :**  
AU\$9 - AU\$18

**Project Type(s) :**  
Natural gas generation, Afforestation / reforestation plantation, Brokerage and trading services can source various offset types

**Quality of offsets available from Ark Climate:**  
NSW Greenhouse Abatement Scheme, Brokerage and trading services can source various accredited offsets

[Offset Products](#)  
 [Offset Quality](#)  
 [Sales](#)  
 [Resources](#)  
 [Contact Details](#)  
 [Project\(s\)](#)

**Ark Climate's View On The Role Of Carbon Offsets In Addressing Climate Change**

Carbon offsets provide capital for investment in carbon [abatement](#) solutions and to provide a price signal / penalty / cost for [CO2](#) emissions.

Ark Climate advocates the need to sustainably reduce energy and resource consumption at the same time as purchasing offset products. Carbon offsets and the purchase of renewable energy fit within the organisation's recommended hierarchy of carbon management which is promoted to all clients.

**Offset Products**

**Price(s) per tonne**  
AU\$9 - AU\$18

**Project Type(s)**  
- Natural gas generation

# Carbon Offset Guide

## Transaction Model

Address [http://www.carbonoffsetguide.com.au/about/transaction\\_model](http://www.carbonoffsetguide.com.au/about/transaction_model) Go Links

### Carbon Offset Guide Australia

Helping you find and choose carbon offsets

Home | About | Summary | Search | Glossary | Subscribe | Comments | New Providers

#### Transaction Model

Purchasing carbon offsets can be a complicated process. We have drafted a carbon offset transaction model to help people understand this process.

To get an idea of issues to be aware of throughout the process of buying carbon offsets please download the [Tips for purchasing carbon offsets PDF](#).

- #### MEASURE

Decide what you want to offset, and calculate your carbon footprint in tonnes of carbon dioxide equivalent (CO<sub>2</sub>e).

**Example**

The Fast Feet logistics company planned to offset their entire car fleet with accredited offsets sourced from Victoria, Australia.
- #### SEARCH

Use the Carbon Offset Guide.

**Example**

Fast Feet went to the Carbon Offset Guide (<http://www.carbonoffsetguide.com.au/providers>), an online resource which provides a summary of carbon offset providers to the Australian market. This enabled them to search for ideal carbon offsets by Accreditation, Project Location, Type of Project and Price. An online glossary enabled them to investigate terms that were confusing. They decided on a project that offset carbon using renewable energy in Victoria, Australia and was accredited to a robust standard.
- #### CHECK

Verify your information by following the link on to the Provider's website from the Carbon Offset Guide and/or speaking to the provider directly.

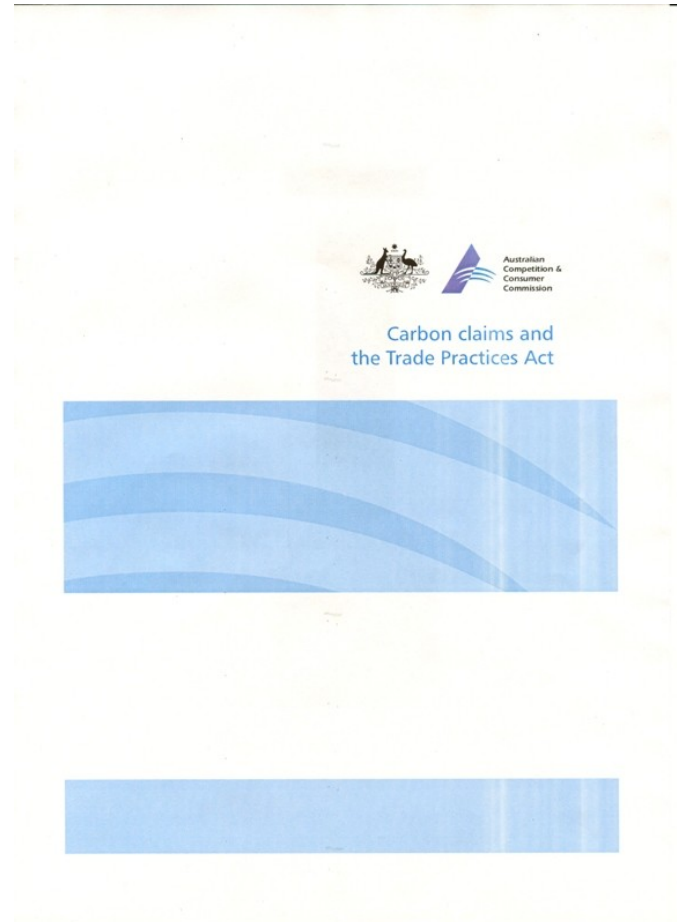
**Example**

Fast Feet further investigated questions about the quality of offsets by contacting various providers directly. A particular issue they found needed to be investigated was whether the project was additional to business as usual. (links on the Provider Page of the Carbon Offset

# Emerging issue - ACCC Scrutiny

“Carbon claims should alert and inform consumers to exactly what is being offset and how”.

(Source: *Carbon claims and the Trade Practices Act*, ACCC, 2008)



# Emerging Issue – National Standard

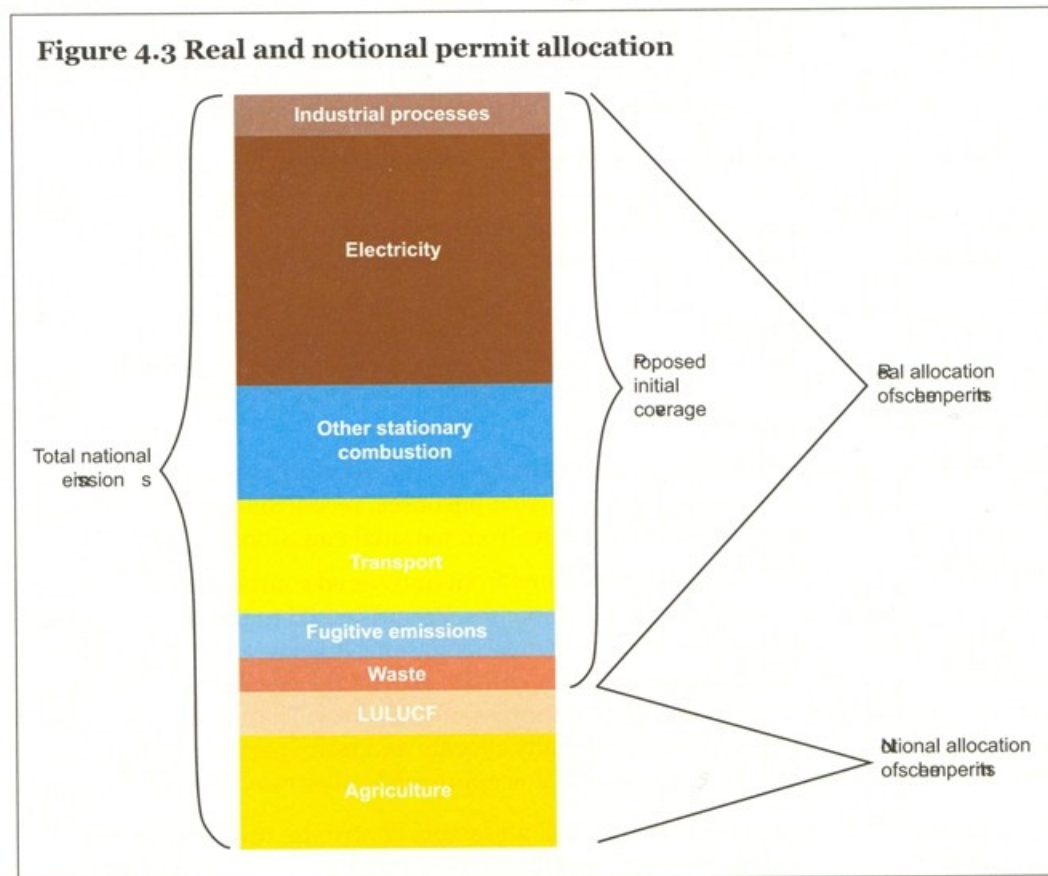
- The Federal Government is proposing a National Standard for Voluntary offsets
  - Details are presently unknown
  - Desire to complement the Emissions Trading Scheme
  - Mooted:
    - Only certified offsets to be sold
    - Formal registry for tracking transactions and retiring from market

# Voluntary Market vs ETS

Query about how the voluntary market will co-exist with the Australian ETS

- Possible limited scope for voluntary offsets sourced within Australia
  - No incentive in “covered” sectors because their action goes towards reducing the scheme cap of liable entities and therefore the price of permits
  - No incentive in “uncovered” sectors because the Kyoto 108% national cap does not recognise voluntary action

# Coverage – Australian Emissions Scheme



# Voluntary Market vs ETS

- Forestry providers will likely “opt in” to ETS because:
  - additionality hurdle no longer relevant
  - Financial incentive (permit price higher than offset price)
  - Recent tax incentives for forest sinks
- Energy Efficiency CFL programs to be phased out by legislation 30 June 2009

# Voluntary Market vs ETS

- Demand for Renewable energy projects will derive from MRET 20% target by 2020, rather than offset market
  - Purchasers will be Renewable Energy Certificates rather than offsets in Australia
- Ongoing demand likely to only be met by international offsets – eg CDM