

## Glossary of Terms – Climate Change and Carbon Markets June

Acronym/Term		Definition
AAU	Assigned Amount Unit	Tradeable emissions units equalling 1 tonne CO <sub>2</sub> -e. AAUs are allocated under the Kyoto protocol each commitment period. Each country is permitted to emit GHGs equivalent to their assigned amount.
Abatement		Refers to reducing the degree or intensity of greenhouse-gas emissions. A project or activity that reduces or otherwise prevents emissions of greenhouse gases from entering into the atmosphere.
Additionality		The extent to which an emissions reduction project is actually reducing emissions compared with the baseline, business-as-usual scenario. Different facets of a project can be assessed, including its financial, technological and environmental additionality. Under Kyoto Protocol, certificates for JI (Joint Implementation) and CDM (Clean Development Mechanism) will only be issued to project-based activities where emissions reduction are “additional to those that would otherwise occur. Additionality is also important in voluntary GHG projects.
Afforestation		Generally refers to the planting of new forests on lands that historically have not contained forests. For Kyoto Protocol purposes, direct human-induced conversion to forested land of land that has not contained a forest for at least 50 years.
AEU	Australia Emission Unit	Term used in legislation to refer to a carbon pollution permit.
Cap and Trade		The generic understanding of a Cap & Trade is a common phrase used to explain the design of an emissions trading system, where total emissions are limited or “capped”. The Kyoto Protocol is a cap & trade system in that emissions from Annex B countries are capped & excess permits might be traded. Tradeable emissions units are issued up to an amount equal to the cap.
Carbon Credit		Term used in both regulatory and voluntary markets & generally refers to a third party verified and certified instrument that is evidence that a financial investment was made that either reduced or prevented a fixed amount of greenhouse gases from entering the atmosphere.
CO <sub>2</sub>	Carbon Dioxide	The main greenhouse gas, accounting for 81% of Annex I countries’ greenhouse gas emissions in 1990, and one of six greenhouse gases controlled by the Kyoto Protocol. Used as the gas of reference for calculating Global Warming Potentials (GWPs), and thus given a 100 year GWP of 1.

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CO <sup>2</sup> -e	Carbon Dioxide Equivalent	<p>A standard measure that takes account of the different global warming potential of different greenhouse gases and expresses the cumulative effect in a common unit, relative to carbon dioxide.</p> <p>A measure for comparing the radiative effect of different GHGs, in terms of the corresponding impact of emitting carbon dioxide. Carbon dioxide equivalents are calculated by multiplying the Global Warming Potential (GWP) of a gas by its emitted weight.</p>
Carbon Neutral		<p>Generally means ensuring that activities do not add GHG to the atmosphere. Most persons claiming carbon neutrality will have their GHG position verified using an appropriate standard. It is generally achieved by a person reducing emissions as far as practical and offsetting the balance of unavoidable emissions with credible carbon credits.</p>
Carbon Market		<p>A generic term for a trading system in which countries or private organisations may buy or sell emission units in an effort to meet limits on emissions. A shorthand term for an international or domestic compliance or voluntary market where greenhouse gas emissions units are exchanged between buyers and sellers. The terms “Carbon Market”, “Greenhouse Gas Market” and “Emissions Market” can be used interchangeably.</p>
CPRS	Carbon Pollution Reduction Scheme	<p>The Australian Government package of policy solutions to climate change. The centrepiece of the government’s response will be an Emissions Trading Scheme. The government outlined the key elements of the proposed emissions trading scheme in the White Paper released in December 2008.</p>
CPP	Carbon Pollution Permit	<p>Domestic unit of compliance under the CPRS. Each one corresponds to one tonne of carbon dioxide equivalent. Permits will be tradeable (except those accessed under the price cap arrangements) and treated as personal property. They will be referred to in legislation as “Australian Emission Units”.</p>
Carbon Price		<p>The cost of emitting carbon into the atmosphere. It can be a tax imposed by a government, the outcome of an emission trading market or a hybrid of taxes and permit prices. The various ways of creating a carbon price can have different effects on the economy. Also referred to as the cost of carbon emissions.</p>

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Carbon Sequestration		The uptake/capture and storage of carbon dioxide within a carbon sink. Can be sequestered by plants and soil and in underground/deep sea reservoirs. Typically used to describe the absorption of atmospheric carbon dioxide by biomass, but can include the geological capture and storage of carbon dioxide, for example in oil/gas wells as geological sequestration. Generally long term storage of carbon dioxide.
Carbon Sink		A geochemical or biological reservoir that acts to sequester carbon from another source within the global environment. Ecosystems, notably forest and oceans, which can remove carbon from the atmosphere by absorbing and storing it, thereby offsetting carbon dioxide emissions. The Kyoto protocol allows certain terrestrial human-induced sinks activities undertaken since 1990 to be counted towards Annex I parties' emission targets, See also LULUCF.
Carbon Tax		A tax applied to carbon dioxide equivalent emissions. A price based measure designed to change consumer behaviour. A surcharge on the carbon content of products.
Climate Change		As defined by United Nations Framework Convention on Climate Change (UNFCCC), a change of climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and that is in addition to natural climate variability of a comparable time period.
CER	Certified Emission Reduction	A tradeable credit generated by projects accredited by the Clean Development Mechanism (CDM) of the Kyoto Protocol. These are aimed at the developing world to encourage carbon abatement and generate revenue. There is a compliance period. One CER equals one tonne of CO <sub>2</sub> -e.
Emissions Leakage		Also called “carbon leakage”. The shift in emissions (and other environmental impacts) from one country to another associated with economic activity being displaced from one country to another. The effect when a firm facing increased costs in one country due to an emissions price chooses to reduce, close or relocate production or to close or relocate production to a country with less stringent climate change policies.
Emissions Trading		Market based approach to reducing emission that allows entities with excess emission units to trade those emissions units with other entities. In general, trading

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		can occur ant the domestic, international and intra-company levels. Kyoto protocol allows parties listed in Annex B to participate in trading of the AAUs for the purposes of fulfilling their emissions commitment. Parties buying parts of AAUs can add these to their AAUs under the protocol, while parties selling must deduct them. Such trading must be supplemental to domestic actions.
Fungibility		Possibility to exchange different types of reduction credits achieved under different mechanisms.
GHG	Greenhouse Gas	Any gas that acts to transmit solar radiation but absorbs infrared radiation. The most important GHGs are covered by the Kyoto Protocol. Carbon Dioxide, Methane, Nitrous Oxide, Hydrofluorocarbons, perfluorocarbons, sulphur hexafluoride. Water vapour is also a GHG.
GWP	Global Warming Potential	A metric for translating the radiative effect of different GHGs into a common currency. GWPs are calculated with reference to the radiative forcing that would result from the emission of 1kg of carbon dioxide over 100 years.
IET	International Emissions Trading	One of the three flexible mechanisms included in the Kyoto Protocol, IET allows countries with binding emissions targets to trade the Assigned Amount Units (AAUs) with other countries with binding targets.
Inventory		A list of an organization's or a country's greenhouse gas emissions by sources, removals by sinks (eg growing trees) and stocks (eg carbon stored in forest biomass and soils).
ISO 14064		Australian, New Zealand and International standard providing a framework for voluntary measuring and reporting of GHG emissions.
LULUCF	Land Use, Land Use Change and Forestry	Land use and land use changes can result in emissions or increase carbon sequestration. Emissions from land use are those that result from cropping and livestock production. Land use change refers to the conversion of land to alternative uses, such as from forest to crop land or from grazing land to forest. Sector as included in the Kyoto Protocol to take account of human-induced activities that remove GHGs from the atmosphere, also known as carbon sinks. Article 3.3 of the UNFCCC deals with forestation, reforestation, and deforestation. Article 3.4 provides that additional anthropogenic activities in the agricultural soils. LULUCF

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		categories may be added by Annex Parties to offset their emissions targets.
LCA	Life Cycle Analysis	Refers to the compilation and evaluation of the inputs, outputs and the potential environmental impacts of product system throughout its life cycle.
Marginal Cost of Abatement		Cost of reducing emissions by one additional unit.
Mitigation		In the context of climate change, a human intervention to reduce the sources or enhance the sinks of greenhouse gases. Examples include using fossil fuels more efficiently for industrial processes or electricity generation, switching to solar energy or wind power, improving the insulation of building, and expanding forest and other “sinks” to remove greater amounts of carbon dioxide from the atmosphere.
Offset		An activity that compensates all or part of the carbon dioxide equivalent emissions of an emitting entity, by reducing the emissions, or increasing the carbon dioxide absorption of another entity.
Permits		Permits are often used for denoting the tradeable units under the Kyoto Protocol, ie AAUs, ERU or CERs.
Reforestation		Conversion of land used for purposes other than forestry to forested land.
Scheme Cap		Determines the number of carbon pollution permits that will be issued the government. Allowable emission from sources covered by the scheme will be able to exceed the cap only if the excess is matched by the surrender of eligible international units, additional domestic permits issued as a result of forestry activities, additional permits issued under the price cap mechanism, or if allowed, scheme offsets.
Sovereign Risk		Risk borne by business caused by changes to government policy (that is the risk associated with changing the ‘rules of the game’).
UNFCCC	United Nations Framework Convention on Climate Change	Most countries have joined the UNFCCC to being to consider what can be done to reduce global warming and to cope with whatever temperature increases are inevitable. A number of nations have approved an addition to the treaty: the Kyoto Protocol. UNFCCC secretariat supports all institutions involved in the climate change process, particularly the COP (Conference of Parties), the subsidiary bodies and their Bureau.

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VER	Verified Emissions Reduction	Carbon Offset offered by commercial firms whereby the purchaser pays to have an emissions allowance purchased and retired on their behalf to offset the carbon produced by the purchaser.
Vintage		The financial year in which a permit becomes available for use in acquitting a liability under the scheme. The sum of the permits in each vintage year is equal to the scheme cap for the respective year.
Voluntary Market		Voluntary Market for emissions reductions cover those buyers and sellers of Verified Emission Reductions (VERs) or voluntary carbon units (VCUs) which seek to manage their emission exposure for non-regulatory purposes.

References: -

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