Carbon in the Future

By Terry McCosker, Feb 2008

Whether you are a believer in global warming or not, the scientific and political paradigms have shifted. The new paradigm is one where the world needs to act quickly to slow the impacts of climate change.

The change of attitude is global, dramatic and happening very fast as evidenced by a few statistics, eg:

- Investment in clean energy technology rose 60% to reach US$148.4 billion during 2007.
- There is firm interest in emission trading in all industrialized nations, including Australia which recently agreed to ratify Kyoto.
- Post 2012 and Kyoto 2, the price of a tonne of CO2 is expected to be €20 to €30 per tonne CO2e.
- Expectations are for an annual trading volume between €110 and €540 billion per annum in the carbon market, post 2012.
- Global trading of carbon is expected to increase by 56% in 2008.
- 140 million tonnes of CO2e traded on the European Climate Exchange (ECX), last month.

The numbers are large by any standards.

Carbon is traded as Carbon Dioxide equivalents (CO2e) on two basic markets, the voluntary market and the mandated market. Carbon in Australia is mostly sold by private treaty on the voluntary market. This will change when the Federal Government brings in the Australian Emissions Trading Scheme (AETS), mandating the market, in 2010.

There is market expectation that the AETS will have an initial price of A$25 per tonne CO2e. It will be hard to maintain this price if Australian credits can be sold in Europe for a much higher price, indicating that global prices must eventually synchronize. There is agreement world wide that the price of carbon must be high enough to drive change.

Carbon Credits will however have a range of values depending on the quality of the credit, its verification standard, and its additional values such as social or biodiversity. In the voluntary market, it is a case of buyer beware at the moment.

There are basically two types of carbon credits used for offsetting emissions. These are credits which sequester carbon (ie remove it from the atmosphere and store it), and those which are generated by reducing carbon emissions.

Examples of carbon sequestration include storing carbon in the soil through regenerative agricultural processes and storing it in wood via forestry. A reduced emission could be via solar technology or wind power, where electricity is

generated sustainably thus saving the CO2 which would have been released by burning coal.

In summary it is very clear that we are moving into a new world, where a gas which is odourless, tasteless and invisible and which comprises only 0.4% of the atmosphere, is quickly becoming the largest commodity traded in the world.