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NEWS & VIEWS OF THE CARBON ECONOMY

The carbon business in New Zealand has had an interesting year to date. The on-going Select Committee review of the Emissions Trading Scheme has overshadowed the fact that carbon credits from New Zealand forests have been claimed and sold under the Emissions Trading Scheme and the Permanent Forest Sink Initiative this year, making the New Zealand program the first successful carbon Emissions Trading Scheme outside the European Union. Despite the uncertainty in the policy framework, we are working with a rapidly growing group of landowners who are interested in taking advantage of the opportunities claiming and selling carbon credits can bring and we are looking forward to a busy and productive second half to this year.

This is the first of a regular series of newsletters designed to keep you up to date on developments in the local and international carbon markets, as well as to provide some practical advice on how carbon credits might best serve your business.

NEW ZEALAND POLICY UPDATE

The Select Committee review of the Emissions Trading Scheme is expected to report back to Parliament in early August. The recommendations of the Committee will form the basis of expected adjustments to the legislation later in 2009.

The expected outcomes are:

1. There will be an amended Emissions Trading Scheme in place by December 2009.
2. Most changes will be in favour of large emitters (the 'buyers' of carbon credits under the scheme), specifically, allowing power companies, heavy industry and agriculture to enter the scheme later than originally planned.

A possible outcome is energy to enter the scheme in 2011 (currently 2010), transport (fuel companies) in 2011 (no change), heavy industry in 2012 (currently 2010), waste in 2013 (no change) and agriculture in 2015 (currently 2013).

3. Forestry should emerge relatively unscathed, or with some positive amendments (the ability to offset deforested pre-1990 forest with new plantings elsewhere, for example).

POSITIVE OR NEGATIVE?

On the positive side, we expect only cosmetic changes to Forestry under the Emissions Trading Scheme and delayed entry of other sectors. Forestry provides New Zealand with a very cheap, reliable source of emissions reductions and is the only 'carbon-positive' sector in the scheme, so it is difficult to see any value in major adjustments to forestry.

On the other hand, delaying the introduction of the large emitters into the scheme will have the effect of reducing the number of 'buyers' in the local marketplace. Some of the big emitters are already shopping for credits but are not committing to large orders until the review comes through. We are putting what pressure we can on Government to recognise that although some businesses will be protected by delaying their entry into the scheme, forest owners will not be able to sell credits at a fair price until some local buyers enter the market.



INTERNATIONAL NEWS

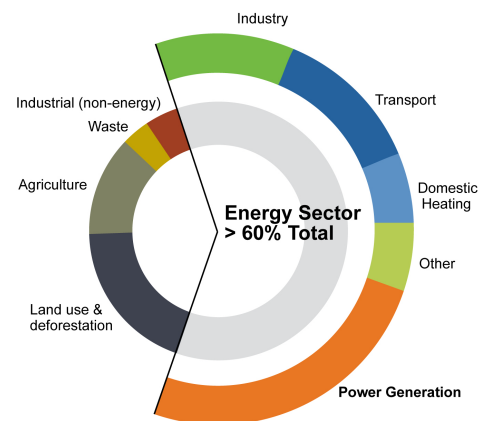
The **USA** passed an Emissions Trading Scheme in the Congress in June. This is a very significant step that will regulate emissions in the world's second largest source of carbon emissions (after China). The US climate bill will create a market for up to **2 billion carbon credits each year**, beginning in 2012. This bill, a key plank in Obama's energy and climate policy, will attempt to pass the Senate before the end of the year.

Australia is still struggling to pass the Carbon Pollution Reduction Scheme (CPRS), the equivalent of our Emissions Trading Scheme. The Rudd government lacks the numbers to pass the bill alone so must depend on the Opposition (who would like to soften carbon reduction targets) or the Greens (who would like to toughen targets) to pass the bill into law. Kevin Rudd remains positive about passing the CPRS before the Copenhagen climate conference in December 2009.

China is engaged in high-level talks with the USA about taking responsibility for their carbon emissions. These talks have raised hopes of China agreeing to begin to reduce emissions and thus increase the chances of securing a new global agreement to succeed the Kyoto Protocol at Copenhagen. **Russia** is also engaged in talks with the USA about setting carbon emissions targets before Copenhagen.

CARBON PRICE OUTLOOK

From a commercial point of view, the return from carbon farming is much more strongly influenced by carbon prices than by the productivity of the forest. This reflects the fact that trees grow at a predictable rate; once the forest is planted or allowed to regenerate and the rate of carbon sequestration (storage) is accurately measured, it is possible to make some fairly accurate predictions of what the carbon yield will be from that forest in the medium to long term. A key question in any evaluation of the economics of carbon farming then is, what are historic carbon prices, and where are prices likely to go in the future?

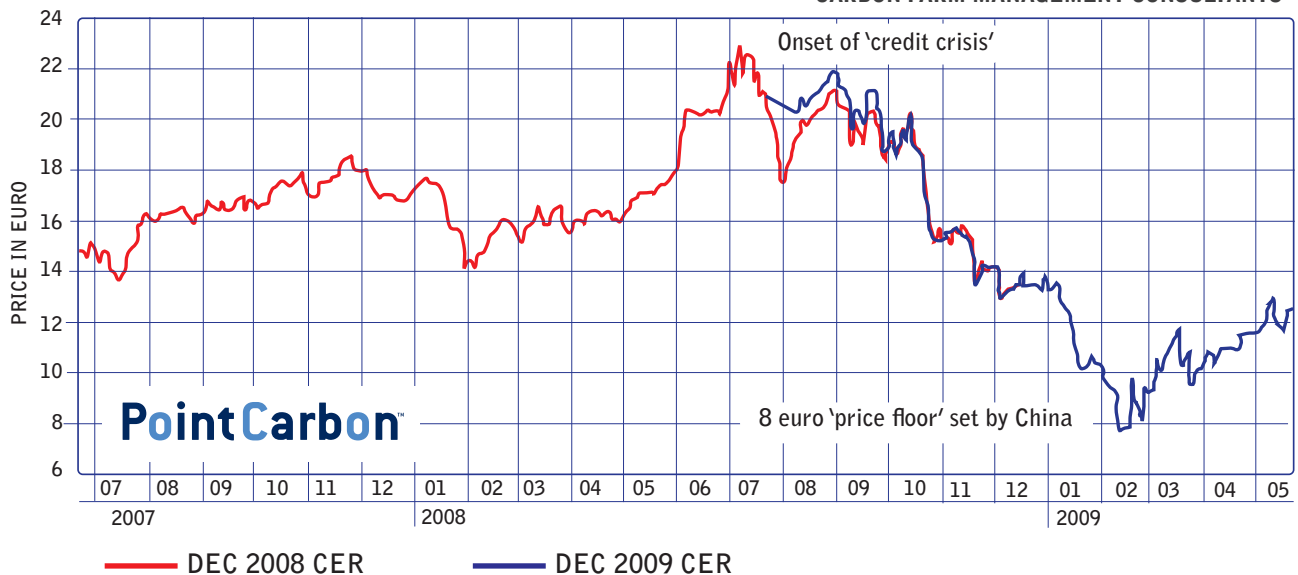


Total Global Man-made CO₂ Emissions

Demand for carbon credits traditionally reflects energy demand (see graph) combined with the requirement for companies to meet national emissions targets. Government policy also shapes current and future carbon demand by forcing more 'buyers' into the market by adjusting emissions targets or changing the number of certain types of carbon credits that can be used to offset emissions.

The following is a list of possible drivers of the price of New Zealand carbon credits (NZU, AAU) in the short to medium term.

1. Timing of the entry of large emitting sectors into the NZ ETS (power and fuel companies, NZ Steel, Comalco)
2. Structure and timing of alignment of NZ ETS with equivalent Australian emissions trading scheme
3. Design of and targets set within the US ETS (passed by Congress June 2009, now before the US Senate); this may add demand for up to 1 billion international carbon credits if introduced
4. Outcome of global talks on climate change policy in Copenhagen in December 2009



CURRENT CARBON PRICES AND A VIEW TOWARD 2020

This price graph shows historic price data for CER carbon credits, the benchmark for international carbon units. Recent trades of NZUs and expected market dynamics suggest that New Zealand carbon credits will trade at a similar level to CERs, perhaps with a slight discount for smaller volumes and/or reduced international trade ability. The CER price dropped steeply as global industrial output (and thus greenhouse gas emissions) fell in late 2008. The ‘floor’ on the price was determined by China, the largest supplier of CERs, which refused to sell any credits for less than €8/CER.

The latest annual survey by the largest carbon market monitoring service, Point Carbon, picked an average price of €35/EUA (an EU Allowance carbon credit) in 2020. Likewise, an analysis by Societe Generale in May 2009 points to a price of €38/EUA in 2020. EUA credits trade at a (variable) premium to international carbon credits like CERs and New Zealand NZU credits; a 20% discount to EUAs suggests a 2020 price of €28/CER [about NZ\$60/CER at 0.45NZD/EUR].

In summary, current predictions by market analysts are for a significant rise in carbon prices between now and 2020.

FORESTRY CARBON CREDITS IN NEW ZEALAND: UPDATE

Post-1989 forests under the Emissions Trading Scheme

MAF has received 174 ETS participant registration applications covering 52,581 hectares of post-1989 forest land. 687,000 NZUs have been transferred into participants holding accounts (valued at approximately \$13.7 million at \$20/NZU).

Permanent Forest Sink Initiative

MAF has received 20 PFSI forest applications to date that cover 4,700ha of forest (2,900ha indigenous; 1800ha exotic). Ten applications have been approved with another 10 being processed. 2089 assigned amount units (AAUs) have been transferred to participants.

Pre-1990 forests under the Emissions Trading Scheme

The deadline for applying for a one-off carbon credit allocation under the Forestry Allocation Plan has been extended to early 2010, as has the deadline for applying for a “less than 50 ha” exemption. Carbon Farm recently sought an opinion from MAF on transfers of pre-1990 forest land to family trusts. Under current rules, any transfer of land, including to trusts, since 31 October 2002 will affect the number of credits issued under the Forestry Allocation Plan. Our advice is to avoid any transfer of pre-1990 forest land to a trust until **after** claiming your credits.



SUPPORT FOR NEW PLANTING UNDER THE AGS

MAF is administering the Afforestation Grant Scheme, a program that subsidises new forest plantings of either exotic or native species. The scheme runs on a tender process whereby landowners are invited to submit applications for funding on a per hectare cost basis. Once approved, MAF will reimburse planting costs up to the tendered amount once the forest has been planted, generally after the first releasing program in the spring following the winter of planting.

What's the catch?

In return for funding some of the planting costs, MAF will claim all carbon credits due for the first **ten years** after planting. After ten years, all subsequent carbon credits will revert to the landowner. Our analysis suggests that for fast-growing species (eucalyptus, *radiata* and cypresses), the landowner would make more from claiming the carbon credits themselves, but for slower growing species (douglas fir and redwoods) the break-even point is close to the ten-year hand-over point. We are very happy to carry out an analysis of the economics of applying for AGS grants versus paying the costs and keeping the credits for anyone planning new forest plantings.

CARBON FARM NEWS

Dr Murray McClintock, the managing director of Carbon Farm Ltd, recently attended a climate change summit in Melbourne as part of the Al Gore-led **The Climate Project**. Delegates from 19 countries attended to hear the latest climate projections as well as to discuss practical strategies for reducing emissions. There was considerable interest in forestry as a effective and practical step to absorb carbon dioxide from the atmosphere at the same time as encouraging biodiversity and employment. The developing world in particular is looking to New Zealand to take a leadership position in designing effective ways to monitor carbon absorption by forests. If you would like Murray to present that material at a meeting in your area (Federated Farmers, Rotary, Rural Women and so on) let us know.

Carbon Farm was represented this year at both the Central Districts Field Days (Feilding) and National Field Days (Mystery Creek). At both events we received plenty of positive feedback from farmers and foresters looking at creative ways to build carbon into their businesses as a new 'crop' and we look forward to working with many of the people we met in the future.

Climate change information

NIWA has produced projections of what changes in rainfall, duration and severity of droughts and storm events and temperature we might expect in different parts of New Zealand. These projections are available from NIWA's website and local councils.

The first impact of climate change of climate change in New Zealand is already evident: **rising insurance premiums**. Two winter storms in 2008 saw a record number of insurance claims in a single month.

"There has been almost a linear increase in catastrophes occurring since global temperatures started rising in the early 1970's." Michael Hawker, CEO of IAG, Australia's largest insurance company.

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