Carbon Trading

Introduction

This info sheet summarises carbon trading which is still a largely unknown and untested concept in New Zealand. Included are comments on carbon prices, mechanisms for trading carbon and how the point at which carbon credits and debits are calculated may affect the farm business.

Carbon Price

The trade in greenhouse gas emissions has been developed internationally in an effort to limit overall emissions. Emissions trading allows one source to increase emissions of greenhouse gases when another source reduces them, theoretically maintaining an overall constant emission level. Market trading of so-called "carbon credits" rose from $68 billion in 2007 to $118 billion in 2008[1]. In 2009, trade volume increased by 68% while the value of trade was similar, as the carbon price fell inline with commodity prices[2]. Until April 2009 most carbon trading in New Zealand had been under a voluntary market situation (pre Kyoto, or outside Kyoto rules), see fact sheet 6 for more on voluntary markets. The compliance market (under Kyoto rules) has been active in Europe for 5 years. New Zealand has experienced significant trade under the ETS with sales to local and European buyers. Prices under both the voluntary and compliance markets are explained below.

Voluntary Carbon Price

Carbon has been traded in New Zealand under various voluntary "carbon-neutral" programmes at around $22 to $25[3] per tonne of CO_2. In Australia, voluntary carbon offsetting programs have carbon selling for around $AUS30[4] per tonne (see fact sheet 6 for more on voluntary trading). The Chicago Climate Exchange currently has carbon trading at $US0.10[5] per tonne. The price of carbon in the voluntary market is highly variable depending on the type of carbon credit and the market in which it is traded.

Compliance Carbon Price

Under the compliance market there has been trading in Europe for several years which currently are trading Kyoto carbon units at around €15.00 per tonne on the European Climate Exchange (ECX)[6]. This is a closed market but could give an insight to how the New Zealand compliance market may pan out over time.

As can be seen on the graph the price per unit of carbon under the European Union (EU) ETS has oscillated as various sectors have been brought in and allowances for certain industries have been made. These events create either a high demand or an over supply of credits and the price rises or falls accordingly. The variability seen in the EU is likely to be reflected in the NZETS as it moves through the staged introduction of various sectors. It may be some time before the local and international market settles on a relatively predictable price.

Trends in EU Allowance (1ton carbon) value on EU Climate Exchange (ECX)

EUA Options traded under the EUETS March 2009 to Feb 2010

1 Emissions Trading market size www.marketswiki.com/mwiki/Emissions_trading
2 http://www.environmentalleader.com/2010/01/08/global-carbon-trading-volumes-grew-68-in-2009
3 CarboNZero™ program sales in 2008, www.carbonzero.co.nz
4 Greening Australia's Breathe Easy program sales in 2008, www.breatheeasynow.com.au
5 Chicago Climate Exchange, www.chicagoclimatex.com
6 European Climate Exchange, www.ecx.eu

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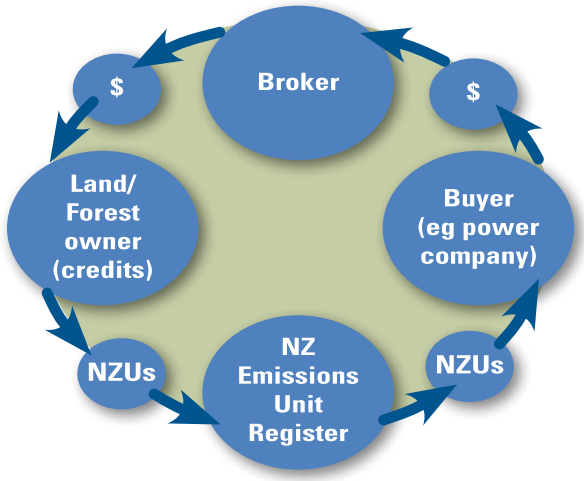
Following an initial domestic sale of 50,000 NZU's (NZ carbon credits under the ETS), the forestry company Ernslaw One has sold 520,000 units for more than $10 million to the Norwegian Government . This was believed to be the first international carbon credit sale under the NZETS by a New Zealand company. It was significant in that it showed that credits from NZ forestry are internationally recognised and valuable ($21) as Kyoto credits. Domestic demand in New Zealand will increase now that the energy and industrial sectors are required to account for 50% of their emissions from July 2010 onwards. The NZ Government as capped the price for all emitters at $25/NZU until 2013.

ETS Mechanism

The NZETS began trading 1 April 2009. Agriculture is currently scheduled to be phased in January 2015. From that point, processors, that is meat and dairy processors, will be responsible for the emissions that occur on farms. Farmers are likely to be charged a levy on the returns from their produce. Processors will have to submit annual ETS returns to MAF, accounting for greenhouse gas emissions or reductions on behalf of their landowner suppliers. The format of a carbon return is likely to be similar to that of a GST return. Carbon returns will be checked by MAF. Once the return is verified, the processor will have a balance of credits (NZUs) that will be available for sale or banking (if positive) or that the landowner will have to purchase (if negative). Sales and purchases will be administered through the NZ Emissions Unit Register (NZEUR) or possibly through a carbon trading exchange (not yet established), or a broker as shown below. Each landowner will have an account with the NZEUR which will operate much the same as internet banking. If you need to buy NZUs you will be able to purchase these off other individuals who have surplus credits. At present the "market" has few rules or protocols and sellers should take care to determine fair price and reasonable contractual agreements.



Outline of current trade mechanisms for forestry providing credits for sale to a power company

Aggregation of Credits

Recent trades of Kyoto-compliant carbon credits between countries have required a minimum number of anywhere between 250,000 and 500,000 credits. This number is obviously well beyond the capacity of an individual landowner, who may produce only around 1,000 NZUs per annum (for example from a 45 hectare forest). While domestic trading should cater for these smaller volume transactions, landowners who wish to take advantage of international trading are likely to have to aggregate their credits with others to provide a large enough volume with which to bargain. Mechanisms for aggregation are starting to become available.

Point of obligation

There have been discussions between the industry and government as to where the point of obligation for reporting emissions should lie. There are two main options: the individual landowner or an industry body. A third option would be to have default accounting at the processor level while giving those who choose it the option to undertake farm level accounting. There are pros and cons for each option. At present the Act sets the point of obligation for agriculture emissions at processor level. However, the Act allows the Government the option of changing this to farm level sometime in the future.

If you have a forest already planted, are in a position to plant trees, or are investing in technology such as nitrification inhibitors then accounting at the farm level is likely to appeal. Carbon accounting at the farm level will ensure your individual efforts are recognised, rather than being lumped in with everybody else including those who are not making efforts to reducing their emissions.

If you are unable to reduce emissions then carbon accounting at the processor level may be a better option because it will save you administration time.

Further Reading

Carbon Farming Information Report at www.carbonfarming.org.nz
http://www.mfe.govt.nz/publications/climate