

Emission Critical



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On 16 June 2005, New Zealand admitted it was unlikely to meet its obligations under the Kyoto Protocol, meaning the country is exposed to a significant liability. Emission Critical provides the background to the issue, an explanation as to why this is suddenly a problem, discusses the ramifications for New Zealand, and explores what can be done to address the situation.

Background

The Kyoto Protocol, to which New Zealand is a signatory, requires New Zealand to reduce its average greenhouse gas emissions for the period 2008 to 2012 (the "first commitment period") to 1990 levels or take responsibility for any excess emissions.

On 16 June 2005, the Ministerial Group on Climate Change released its "Annual Report on Climate Change Policy Implementation 2004/2005" ("the Report"). The Report updates forecasts for New Zealand's net emissions position for the first commitment period 2008-2012 and provides commentary on climate change policy developments over the last year. The Report states that, based on its projections, New Zealand is likely to miss its Kyoto Protocol target and be faced with a liability for the excess emissions.

Applying the prevailing exchange rates and internationally traded carbon prices, the Report's "most likely" forecast of 36 million tonnes of excess CO₂ emissions would result in New Zealand being required to purchase carbon credits at a cost of \$1.2 billion. Prior to the issue of the Report, the New Zealand government had been developing climate change policy on the assumption that New Zealand would meet its obligations under the Kyoto Protocol, mainly thanks to carbon credits associated with New Zealand's large tracts of forests (referred to as "forest sinks").



The Government has recognised a liability under the Kyoto Protocol for its net emissions shortfall in the first commitment period in its financial statements for the 11 months ended 31 May 2005. However, surprisingly, this liability has been quantified as \$307 million, based on a carbon price of \$US 6 per tonne. In our view, with carbon currently trading at €20 per tonne and the carbon tax set by the Government at \$15 per tonne (intended to reflect the international price of carbon), the liability recorded should be considerably higher.

Since the projected emissions forecasts began in 2003, New Zealand's net emissions position has seen consistent deterioration. The progression of the deterioration is illustrated in the table over the page, which sets out the projected surplus/deficit of emissions published over the last three years.

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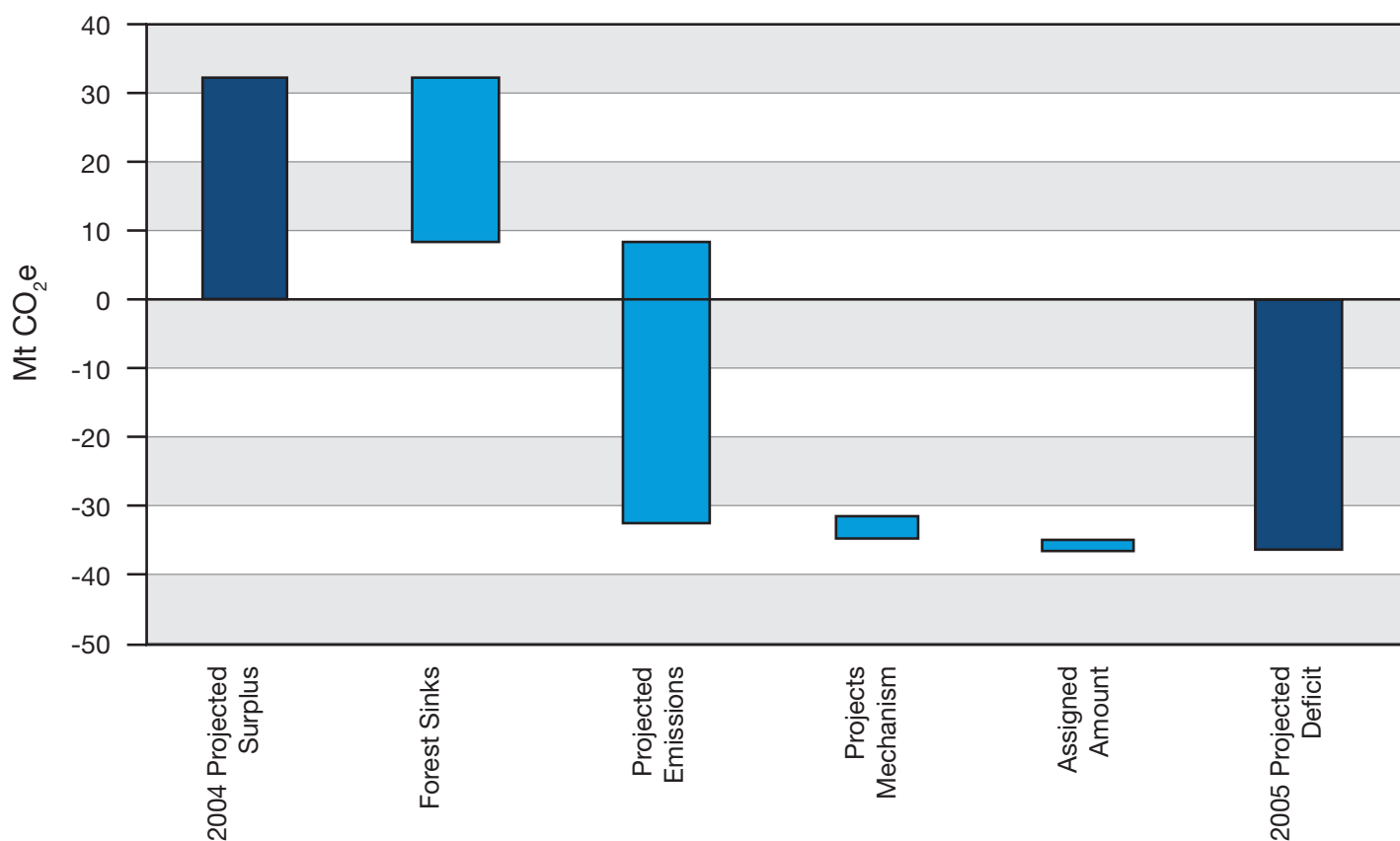
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Changing NZ government projections in the 2003 to 2005 period

Projection release year	Mt CO ₂ e projections for 2008 -2012			% Change 2004 -2005
	2003	2004	2005	
1990 emissions – NZ Target	308.3	308.3	307.6 ¹	(0.2%)
CO ₂ e Emissions				
Energy and Industrial	161.5	156.4	194.4	24.3%
Agriculture	189.5	201.3	202	0.3%
Waste	7.5	3.3	5.3	60.6%
	358.5	360.9	401.7	11.3%
Emissions to be covered by forest carbon sinks	(50.2)	(52.6)	(94.1)	(78.9%)
Forest Carbon Sinks (net)	105.0	95.2	70.9	(25.5%)
Projects to Reduce Emissions liability	0.0	(10.0)	(7.5)	(25.0%)
Project Surplus/Deficit	54.8	32.6	(36.2)	(211.0%)

The following diagram highlights the areas contributing to the change in the projected net position over the last year:

Change in the Projected Surplus 2004 to 2005



Why the change?

It is clear from the tables that the major contributors to the increase in New Zealand's projected excess emissions are the energy and industrial sector and the decline in the projected forest sink credits.

The increase in the projected energy emissions has been driven by:

- a greater reliance than previously thought on coal for electricity generation (due to the decline in New Zealand's gas reserves);
- Increasing reliance on diesel for transport;
- A general increase in fugitive and industrial process emissions; and
- Stronger than expected economic growth.

The scaling down of available forest sink credits is primarily a result of forests planted on existing Kanuka/Manuka scrubland being excluded from the definition of forests, and the assumption that deforestation will continue at long-run historical rates. Of concern is anecdotal information indicating current and future deforestation rates are higher than historical levels. This information has not been taken into account in the projections delivered in the Report.

The continued development of New Zealand's national greenhouse gas inventory system (including the carbon monitoring/accounting system) has and will continue to result in a number of refinements which have impacted the current projections and annual projections moving forward.



Ramifications for New Zealand

If New Zealand finds itself in the likely position that it is not able to meet its required emissions targets under the Kyoto Protocol, it will have 100 days at the end of the first commitment period to make up any shortfall by purchasing emissions credits on the international market. If it is unable to achieve this, New Zealand would incur a 30% penalty amount in the second commitment period (2013 to 2017) and would be barred from selling any units on the international market. It would also be required to develop a compliance action plan to ensure it meets its commitments in the second commitment period.

We estimate that based on the projected excess emissions, today's exchange rate and carbon price, the cost to New Zealand would be approximately \$1.2 billion. However, the liability could be substantially larger due to:

- A depreciation in the New Zealand dollar, particularly against the Euro;
- An appreciation in the price of carbon credits. In our view, due to demand outstripping supply, the price of carbon is likely to increase. This is supported by recent reports from the European Union ("EU") where the Kyoto Protocol target is an 8% reduction (versus 1990 levels) with the achievement to date only being a reduction of 1.7% (there is also concern that the possibility of significant further emissions reductions in the EU is limited); and
- New Zealand's projected excess emissions could get worse. Of particular concern is the potential impact of accelerated deforestation. Also, the \$1.2 billion liability is based on the government's projected "most likely" excess emissions of 32.6 million tonnes of CO₂. However, the Report also provides a "pessimistic scenario" of 62.6 million tonnes, which using the same assumptions converts to a potential liability of \$2.3 billion.



Tree silhouette photographed Teresa Gerbich.

What can New Zealand do?

Can New Zealand pull out of the Kyoto Protocol? In our view, this would be extremely difficult. To the best of our knowledge, New Zealand has never withdrawn from an International Protocol and the ramifications of doing so would be far reaching and, importantly, could impact on Asian and European trading relationships.

Whilst the opposition parties have indicated that they would review New Zealand's commitment to the Kyoto Protocol, they have stopped short of a withdrawal policy. The Kyoto issue is likely to be a hotly debated topic in the lead up to this year's election.

Therefore, in all likelihood New Zealand will need to develop policies to address the potential excess. Whilst the government has introduced a suite of policies, including the carbon tax, this was on the basis that New Zealand would comfortably meet its emission target. Unfortunately, given the new projections, it would seem more radical policies may be required.

In order to make significant and quick reductions, New Zealand should focus on the largest emission sectors, being agriculture (50% of emissions) and transport (19% of emissions).

In relation to transport emissions, overseas experience should be considered. Recently, plans for vehicle emissions testing have been "shelved", mainly due to the expense associated with testing equipment. This decision may need to be reconsidered. The Government may also need to consider initiatives to encourage businesses to use more emission friendly technologies. To effect this, it may be appropriate to provide accelerated depreciation rates for such technologies. New Zealand's emission

profile is unusual with half of all emissions agricultural related (methane and nitrous oxide from animals). To date, the government's policy in relation to agriculture has been to exempt farmers from paying for emissions on the basis that the only way to reduce emissions, in the short term, is to reduce animal numbers which is neither desirable nor feasible. Instead, the agricultural industry is investing in research and development, i.e. finding ways to reduce emissions. In the light of the revised projections and the significance of the agricultural emissions, we suggest that the government will be closely reviewing its agriculture emissions policy.

In addition to reviewing its policies, the government should start considering hedging policies in order to, at least, limit New Zealand's contingent liability. This may involve foreign exchange hedging or buying carbon credit futures.

Summary

- The government has reported that New Zealand is unlikely to meet its obligations under the Kyoto Protocol.
- Based on current exchange rates and carbon prices, the potential liability is approximately \$1.2 billion based on the government's "most likely" scenario.
- Indications suggest the liability could be larger.
- New Zealand is unlikely to pull out of the Kyoto Protocol.
- To limit New Zealand's exposure the government needs to reassess its climate change policies. Focusing on the transport and agriculture sectors could deliver the necessary "quick wins".

If you have any queries regarding how the Government's climate change policies will impact your business, or assistance with strategies to maximise the opportunities available, please contact one of the PricewaterhouseCoopers Climate Change Services Team.

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Disclaimer: Emission Critical May 2005 is intended as a guide only. Readers are advised that before acting on any matter arising from this document, they should consult a PricewaterhouseCoopers Advisor.

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