Ministry for the Environment
Manatū Mō Te Taiao

New Zealand Emissions Trading Scheme

Government's Response to Feedback from Engagement

New Zealand Government

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Introduction

On 20 September 2007, the government released its proposed *Framework for a New Zealand Emissions Trading Scheme*[1] (the "framework document") and began an intensive period of engagement with stakeholders and Māori on the core design features of the scheme. Based on the outcomes of that engagement, the government introduced a Bill into the House of Representatives for passage during the life of the current Parliament.

The Bill covers the core NZ ETS provisions that apply to all sectors; provisions needed to bring all sectors into the scheme according to a staged timeframe; provisions specifying total levels of free allocation for the forestry, industrial and agriculture sectors; and a requirement that the government undertake periodic reviews of the scheme. Regulations will be required to give effect to the entry of each sector into the scheme. Consistent with the staged entry of sectors, the content of regulations for the forestry and liquid fossil fuel sectors has been progressed alongside the Bill. More detailed decisions on the implementation of the NZ ETS, and particularly for sectors that are later entrants into the scheme, will be taken later in 2008. These decisions will be given effect through regulations.

Reflecting this two-stage decision-making process, the engagement process to date has focused largely on the core provisions applying to all sectors and the more detailed provisions for the forestry and liquid fossil fuel sectors. The government acknowledges with appreciation the considerable effort made by stakeholders and Māori to review the framework document, meet with officials, and in some cases offer written comments. The government has carefully considered this feedback and applied it in the process of preparing the Bill and identifying areas where further analysis is needed to reach final decisions on scheme design.

This document has been prepared to assist stakeholders and Māori in reviewing the Bill and participating effectively in the next stages of engagement by:

1. identifying the key NZ ETS design issues that were raised during engagement from September through November 2007
2. explaining how the government has responded to engagement outcomes in the Bill
3. identifying which of these issues will be decided outside the primary legislation and after the primary legislation is passed.

Through necessity, this document does not cover all points raised by stakeholders in the engagement process. Instead, it focuses on the following key design issues:

1. the proposed treatment of liabilities and assistance for pre-1990 forests
2. eligible units of trade and options for managing prices and liquidity in the domestic market

[1] This document is available from the website www.climatechange.govt.nz.

3. provision of free allocation, including:
    - the phase-out of free allocation for industry and agriculture
    - the basis of free allocation: using absolute versus intensity metrics
    - the scope of free allocation with regard to liquid fossil fuels or other sources of emission-related cost increases
4. emissions from limestone applied to soils.

In addition, the document provides further explanation of the government's proposal for free allocation to industry and the selection of points of obligation in non-forestry sectors. The document also presents a brief comment on the criticisms that the government has received regarding the rate at which the NZ ETS is being introduced.

The document presents a brief synthesis of themes that emerged from the regional hui with Māori, and notes the government's preparation of a report on *Māori Impacts from Emissions Trading Scheme: Detailed Analysis and Conclusions*.

Government engagement with stakeholders and Māori will continue during 2008 as the Bill is considered in select committee and as the government makes further decisions on detailed design features to guide regulatory development. The document outlines this engagement process and the respective roles of groups such as the Climate Change Leadership Forum, the Peak Group on Agriculture and the ETS, and Technical Advisory Groups (TAGs) (including one on stationary energy and industrial processes and one on agriculture) being set up to assist with working through the more detailed (but critical) 2008 decisions. The government will also continue to engage with Māori and iwi. Finally, the document briefly addresses the select committee process, which is clearly important in ensuring that the legislation is as sound as possible.

The document is structured as follows:

Section 1: Background on the Proposed NZ ETS

Section 2: The Engagement Process Undertaken to Date

Section 3: Key Design Issues Raised during Engagement

Section 4: Themes from Engagement with Māori

Section 5: Clarification of the Government's Allocation Proposal

Section 6: Clarification of the Government's Proposal for Participants in Non-Forestry Sectors

Section 7: Rate of Introduction of the NZ ETS

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1 Background on the Proposed NZ ETS

There has been significant work done in New Zealand on the possibility of introducing a price on greenhouse gas emissions. Following a decision not to proceed with a carbon tax in late 2005, the government undertook a series of climate change work programmes that culminated in the release of a series of discussion documents in late 2006. These discussion documents addressed various aspects of New Zealand's climate change, energy, and sustainable land management policies going forward.[2]

The discussion documents described a range of potential policy responses to climate change, including: emissions trading, a narrow carbon tax, incentives to reduce emissions, direct regulatory measures and voluntary agreements to reduce greenhouse gas emissions.

The consultation process on these documents involved approximately 50 public or multi-sector meetings, workshops, hui, and approximately 100 targeted meetings. Over 4,000 people attended the consultation events throughout the country. Over 3,000 written public submissions were received before formal consultation ended on 30 March 2007.

The clear preference that emerged from this consultation exercise was for government to introduce a price-based mechanism across all major emitting sectors of the economy (as part of a broader suite of climate change initiatives), with an emissions trading scheme (ETS) being the preferred instrument in the long term. Given this, a dedicated, cross-departmental Emissions Trading Group (ETG) was set up, located at the Treasury, to advise the government on design options for a New Zealand emissions trading scheme (NZ ETS).

Cabinet considered design options around a NZ ETS and on 20 September 2007, a document entitled *The Framework for a New Zealand Emissions Trading Scheme* (the "framework document") was released. This framework document is the centrepiece of the government's proposal for the design of an NZ ETS.

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[2] The discussion documents were: the draft *New Zealand Energy Efficiency and Conservation Strategy (NZEECS), the draft New Zealand Energy Strategy* (NZES), *Transitional Measures: Options to move towards low emissions electricity and stationary energy supply and to facilitate a transition to greenhouse gas pricing in the future*, *Sustainable Land Management and Climate Change*, and *Measures to Reduce Greenhouse Gas Emissions in New Zealand Post-2012*.

2 The Engagement Process Undertaken to Date

Ministers and officials have undertaken an extensive engagement process with stakeholders and Māori since the release of the framework document on 20 September, including:

- three cross-sector emissions trading workshops
- 12 regional hui
- a national hui for Māori and a national Māori forestry hui, both of which were supported by government but organised and run by Māori
- seven regional forestry meetings
- four workshops for those who may be "participants" in the NZ ETS ("participants" in the NZ ETS will be the individuals and firms who will have rights and obligations under the legislation that implements the NZ ETS)
- an NGO forum
- numerous "one on one" meetings with key stakeholders.

The engagement also included the establishment of a Climate Change Leadership Forum to facilitate communication between the government and the broader community on the proposed design of the NZ ETS. This comprises 33 senior representatives of sectors and firms subject to the NZ ETS, community and NGO representatives, academics, and the chief executives of the government departments responsible for advising on the NZ ETS. The Forum will continue until mid-2008, and its considerations will be taken into account and fed into the legislation process.

The proposed NZ ETS has received broadly positive recognition, reflecting not only the effort that went into its development but also widespread public acknowledgement that action to reduce emissions and make us more sustainable is necessary. Some stakeholders and Māori have raised issues with regard to specific areas of the NZ ETS design where they consider the NZ ETS design could be improved. Some stakeholders have also raised concerns about the rate at which the scheme will be implemented, with some proposing that the scheme is being introduced too quickly and others that later entrants into the scheme should actually be entering on a faster track. The public understanding of the scheme has grown quickly, and the engagement process has been constructive in identifying the key design features that will be of strategic importance to New Zealand's national interest.

Two external reviews of the NZ ETS have been received to date. Both are broadly supportive of the design but highlight issues for further attention. These are publicly available[3] and were undertaken by:

1. the International Energy Agency (IEA): IEA is an autonomous body within the framework of the Organisation for Economic Co-operation and Development (OECD); IEA promotes rational energy policies in a global context

[3] Refer to the website www.climatechange.govt.nz.

2. Dr Suzi Kerr, Motu Economic and Public Policy Research, Wellington: Dr Kerr has considerable experience in New Zealand and abroad as an academic scholar in the subject area of market-based instruments.

As noted in the introduction, the engagement process to date has reflected the two-stage decision-making process on the NZ ETS. The first stage of decisions, taken by the government in 2007, has formed the basis for the Bill introduced in the House. These decisions focus on core design features and more detailed implementation measures for the first sectors to enter the scheme (particularly forestry). A second stage of decisions will be taken later in 2008 to support the development of detailed implementation provisions that will be given effect through regulations.

A separate consultation programme has been run by the Department of Inland Revenue on some of the potential income tax and GST implications of the NZ ETS.[4] As a result, the Bill includes consequential amendments to tax legislation to provide certainty on the tax treatment of income and expenditure arising from the NZ ETS for the forestry sector.

[4] The government's issues paper entitled *Emissions Trading Tax Issues* is available at: http://www.taxpolicy.ird.govt.nz/publications/files/emissions.doc

3 Key Design Issues Raised During Engagement

Ministers and officials received feedback on a very wide range of matters relevant to NZ ETS design. The key issues that were raised can be categorised into general areas as follows:

1. the proposed treatment of liabilities and assistance for pre-1990 forests
2. eligible units of trade and options for managing prices and liquidity in the domestic market
3. provision of free allocation, including:
    - the phase-out of free allocation for industry and agriculture
    - the basis of free allocation: using absolute versus intensity metrics
    - the scope of free allocation with regard to liquid fossil fuels or other sources of emission-related cost increases
4. emissions from limestone applied to soils.

While other issues raised by stakeholders and Māori are important and have been considered by government, these issues are the ones that the government has identified as being of the greatest significance in the NZ ETS design. The analysis of each of these issues is organised according to the following headings:

- context
- government's in-principle decisions as outlined in the framework document
- stakeholder response
- comment on the issues raised by stakeholders
- conclusions for legislative purposes.

It is important to note that the government has considered the views of stakeholders and Māori in the context of the objective of the NZ ETS. This objective – which did not receive major criticism through the engagement process – has now been agreed by the government and is repeated here for readers' convenience:

> *That a New Zealand ETS support and encourage global efforts to reduce greenhouse gas emissions by:*
>
> - *reducing New Zealand's net emissions below business-as-usual levels; and*
> - *complying with our international obligations, including our Kyoto Protocol obligations;*
>
> *while maintaining economic flexibility, equity, and environmental integrity at least cost in the long term.*

This objective ensures that the NZ ETS focuses on supporting global efforts by reducing New Zealand's net greenhouse gas emissions below business-as-usual levels. As noted in the framework document, New Zealand is reliant on effective international action, and the best way of supporting it is a credible programme of action to manage domestic emissions downwards at least cost in the long term.

Climate change is regarded as a global issue for which the response needs to be similarly international. The United Nations Framework Convention on Climate Change, and its Kyoto Protocol, are two pillars of that international response. The NZ ETS is designed to allow New Zealand to meet whatever international climate change commitments it may have at least cost in the long term. It is freely acknowledged that some leakage may occur as a result of the NZ ETS; this is a result of design flowing from the objective of the NZ ETS.

The NZ ETS offers flexibility by enabling participants to reduce their own emissions or to fund emission reductions by other parties. Including equity in the objective provides for considerations of the ability of consumers to pay, fair burden sharing between and within sectors, and fair burden sharing between taxpayers and the private sector. The concept of environmental integrity suggests certainty around environmental outcomes through the use of absolute rather than intensity-based obligations, the linkage of the scheme to international Kyoto markets, and the use of binding non-compliance measures.

3.1 Pre-1990 forests: liabilities and assistance

3.1.1 Context

The Kyoto Protocol creates a distinction between forests established before and after 1 January 1990. The NZ ETS maintains that distinction, and largely mirrors the rules in the Protocol.

Under the Kyoto Protocol, New Zealand is required to account for net carbon stock changes in post-1989 forest, and to account for deforestation emissions from pre-1990 forest. However, for pre-1990 forests we had the choice to fully account for net carbon stock changes resulting from forest management (including harvesting), which do not involve a land-use change and are accounted for under Article 3.4 of the Protocol.

New Zealand elected not to account for management of pre-1990 forests as analysis suggested that the option of fully accounting for carbon stock changes would see New Zealand facing a considerably larger net liability (especially after CP1), and would threaten the viability of ongoing commercial management of the pre-1990 forest estate (due to significantly increasing the cost of harvesting).

This means that from 2008 to 2012, while New Zealand can claim credits under the Kyoto Protocol for net increases in carbon stocks on post-1989 forest land, New Zealand does not get credits for any increases in carbon stocks in managed forest land established pre-1990. This decision on New Zealand's forest treatment under the international rules can be revisited for the second commitment period but is fixed for the first commitment period.

While the NZ ETS proposals have been released relatively recently, the government first signalled an intention to introduce some form of deforestation control in 2002. At that time, the government indicated that it was willing to meet the cost of deforestation emissions in the 2008–2012 period up to a cap of 21 Mt of CO_2-e.

3.1.2 Government's in-principle decisions as outlined in the framework document

3.1.2.1 Pre-1990 exotic forest

In the framework document, the government proposed that all owners of pre-1990 exotic forest land will be automatically included in the NZ ETS (but some can apply to be exempted, as detailed below). Where they are covered by the scheme, owners will be responsible for any emissions that occur as a result of the *deforestation* of their land: the conversion of forested land to non-forest uses, such as farmland, roads, or housing developments.

Changes in the net carbon stocks in pre-1990 exotic forests resulting from ongoing forest management (including harvesting) will *not* be covered by the NZ ETS. As such, owners will not be required to take responsibility for the emissions that occur when a forest is harvested and then replanted. Similarly, they will not be eligible to receive credits if they are able to increase the levels of carbon stored in their forests through practices such as increased rotation lengths, or as their forests grow.

An assistance package equal to 55 million units is proposed to be available to the owners of pre-1990 exotic forest to offset some of the economic impacts of the NZ ETS. A portion of these units – 34 million – will be "post dated" and unable to be surrendered to cover emissions until after 2013. Assistance will be provided through the free allocation of units and exemptions from the scheme. The key exemptions proposed for pre-1990 exotic forests are: an opportunity for owners of less than 50 hectares of pre-1990 exotic forest to apply to be excluded from the scheme, and an automatic exemption for anyone who deforests less than two hectares of their pre-1990 exotic forest in each five-year phase of the scheme. A number of NZUs will be subtracted from the total number of NZUs allocated by the government to landowners to cover the emissions that result from deforestation on exempted land. In addition, removal of invading weed trees (up to 1,250 hectares' worth of deforestation) may also be exempted from the scheme.

In addition, the fact that the government signalled an intention to introduce deforestation controls in 2002 (which was confirmed several times in later years) has essentially provided a transition period where deforestation could be carried out "free of charge" prior to 2008. Deforestation is unique in this respect, as emissions in most other industries cannot be "brought forward" in order to avoid emission liabilities. There is clear evidence that this transition period has been taken advantage of, with deforestation levels increasing significantly in recent years.

3.1.2.2 Pre-1990 indigenous forest

The framework document made clear that the government intended to consult on whether or not to include pre-1990 indigenous forests in the NZ ETS. Stakeholder feedback was also sought on whether provision is necessary to allow for deforestation associated with papakainga (housing) on Maori forest land subject to the Te Ture Whenua Māori Act 1993.

3.1.2.3 Post-1989 forest

As proposed in the framework document, the owners of post-1989 forests can opt voluntarily to enter the scheme from 1 January 2008. On entry to the scheme these owners will assume responsibility for all changes in their forests' net carbon stocks; they will receive credits where stocks increase and face liabilities where they decrease. The government has agreed that liabilities for carbon stock reductions will never be greater than the total credits received for a given area of forest.

Owners who wish to establish new post-1989 forests but who do not wish to enter into the NZ ETS can also apply for government grants under the Afforestation Grants Scheme; participants will own the new forests and earn income from the timber, while the Crown will retain the sink credits and take responsibility for future emission liabilities. The government also operates a Permanent Forest Sink Initiative which enables forest owners to receive Kyoto assigned amount units on the basis of a land-use covenant between the landowner and the Crown.

3.1.3 Stakeholder response

The proposed treatment of pre-1990 forest in the NZ ETS has met with relatively heavy criticism from some elements of the forestry industry. The key underlying elements to that criticism are that:

- the proposed level of compensation (through free allocation) is insufficient where landowners have viable alternative commercial land uses available (the estimated level of free allocation – 39 units per hectare – is small relative to the likely deforestation charge for a mature pinus radiata forest of approximately 800 units)
- owners of pre-1990 forest should be able to receive credit for increasing the level of carbon in their forests (regardless of whether the Kyoto Protocol recognises this)
- owners of pre-1990 forest will in practice be "locked in" to their current land use in perpetuity even though the ability to "move" forest is both sensible environmentally and desirable
- some owners either were not aware these changes were coming, or were unable to deforest prior to 2008 due to being tied into long-term forest contracts
- the relative treatment of post-1989 forest owners is substantially more generous, leading to inequities within the sector
- the treatment of pre-1990 forest is driven off the rules in the Kyoto Protocol, rather than environmental integrity and New Zealand's national interest.

In contrast, the proposed treatment of post-1989 forests, and the design of the complementary forestry measures – the Permanent Forest Sinks Initiative (PFSI), Afforestation Grant Scheme (AGS) and East Coast Forestry Project – have received relatively broad support.

3.1.4 Comment on the issues raised by stakeholders

3.1.4.1 Differentiation of forestry rules

As noted, the Kyoto Protocol creates the distinction between pre-1990 and post-1989 forest. While the division date of 1 January 1990 is arbitrary, some differential treatment between "old" and "new" forest is necessary to allow the scheme to simultaneously discourage deforestation of existing forest and incentivise afforestation.[5]

The government is able to build different rules into the NZ ETS from the rules implemented by the Kyoto Protocol. However, where it does, the government (or other sectors in the economy) will be required to meet the cost of any shortfall in the number of NZUs surrendered under the NZ ETS relative to New Zealand's obligations under the Protocol. Since pressures to adjust the NZ ETS would typically be expected to favour private interests, any divergence in rules could be expected to result in a cost rather than gain to the taxpayer. A divergence in the rules is also likely to reduce the potential for linkages between the NZ ETS and other Kyoto-consistent trading systems internationally.

3.1.4.2 Level of assistance

The overall level of assistance proposed for pre-1990 forest owners through free allocation has been based on the sector's historical emissions; this concept is also applied in the agriculture and industrial sectors, although in a different way, reflecting sectoral characteristics.

The proposed level of assistance of 55 Mt of CO_2-e is equivalent to the level of carbon stored in slightly over 5.2 per cent of the pre-1990 forest estate – the estimated level of deforestation over the 1995–2005 period. As the bulk of the pre-1990 forest will be harvested once in the next 28 years, the proposal to provide total assistance equivalent to 55 Mt of emissions would see the government meeting the cost of the industry's full historic rate of deforestation emissions for a 28-year period (ie, not 90 per cent of 2005 emissions as in other sectors). This is in addition to the six-year transition period most pre-1990 forest owners have had available, which has been substantially used.

The government considers that this overall level of assistance is fair in absolute terms, as the industry will only be responsible for any increases in emissions in pre-1990 forests over and above historic levels for a 28-year period.

3.1.4.3 Targeting of assistance

The framework document proposed to distribute assistance equally between all owners of pre-1990 forest land on the basis of land area. However, it is recognised that the costs of the NZ ETS will not fall equally on all landowners; those with high-value alternative uses will be significantly more heavily affected than those whose land has limited commercially viable alternative uses.

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[5] This does not mean that the government considers the Kyoto rules are perfect. It will seek adjustments in future international agreements in this area where appropriate.

Similarly, the government recognises that the impact of the NZ ETS on landowners will differ across a number of other parameters. Importantly, not all landowners had the opportunity to deforest during the 2002–2007 period. A number were constrained by the existence of long-term contractual arrangements with forest owners, such as forestry rights and leases. Equally importantly, parties that purchased their forest land after 2002 are likely to have paid a price that reflected the government's announced intention to introduce deforestation controls of some form, and will therefore face less additional adverse effects under the NZ ETS. A proportion of the proposed assistance package could, in principle, be prioritised towards groups which bought their land prior to 2002 and/or were limited in their ability to deforest between 2002 and the start of 2008.

3.1.4.4 Specific suggestions raised

There are two specific suggestions that have been made by stakeholders in relation to the treatment of pre-1990 forests that have been rejected by government. These are:

- exemption of pre-1990 forest from the NZ ETS
- full carbon stock accounting for pre-1990 forests.

Annexed is a brief discussion of these issues.

3.1.5 Conclusions for legislative purposes

While the government recognises that the equal distribution of free units across owners of pre-1990 plantation forest on the basis of land area does not reflect the differential impacts of emission pricing on landowners, the government has not been able, in the time available, to identify a workable process for targeting that assistance more effectively. The Bill has been drafted to provide an overall level of assistance of 55 million emission units, of which 21 million units will be allocated for the period from 2008 to 2012 and 34 million units will be allocated for the period from 2013 to 2024. The Bill is silent on how those units will be distributed to individual landowners, and provides for the Governor-General (by Order in Council) to issue an allocation plan providing for the free allocation of units to landowners of pre-1990 exotic forest. This allocation plan will be publicly released in draft form, and submissions will be considered before the final plan is agreed.

Policy work in this area is continuing and the government remains open to exploring possible targeting options further, including:

- targeting some or all assistance on the basis of characteristics of key concern, such as the date of land acquisition or land-use restrictions
- targeting assistance on the basis of land-use capability
- allowing some "movement" of pre-1990 forests through some form of domestic offset scheme
- targeting some or all assistance through the use of a progressive obligation for relatively small areas of deforestation
- attempting to reveal stakeholders' preference to deforest through the allocation process.

The Bill does not provide for the inclusion of indigenous forest in the NZ ETS, and does not provide an exemption under the NZ ETS for deforestation to make way for papakainga housing. No decisions have been made on these issues by the government. These issues are open to further engagement and can be raised during the select committee process.

3.2 Liquidity in the market/unit of trade

3.2.1 Context

Linking to either another country's trading regime and/or to the global market in Kyoto units is desirable for a number of reasons. The NZ ETS would be a relatively small market with a limited number of participants with unit obligations. Linking internationally ensures much-needed liquidity in the domestic market. It also helps ensure that prices on the domestic market are aligned with international prices.

These factors help to align the NZ ETS with the objective of meeting our Kyoto Protocol and future international obligations at least cost in the long term. Linking also ensures that the NZ ETS is aligned with global actions to mitigate climate change. It is therefore important that the NZ ETS is internationally-linked and that those international linkages are as effective as possible.

3.2.2 Government's in-principle decisions as outlined in the framework document

The framework document discussed the government's intention to link the NZ ETS with international markets by allowing:

- New Zealand units (NZUs) to be converted to assigned amount units (AAUs) and sold internationally
- With some limited exceptions, participants in the NZ ETS to surrender Kyoto compliant units (eg, AAUs, CERs, RMUs and ERUs) as well as NZUs for compliance purposes[6]
- non-participants, including the government, to buy and sell units domestically and internationally, including when acting as an intermediary for NZ ETS participants.

This approach was intended to ensure that the price of carbon in the NZ ETS remained broadly in line with international prices.

[6] The acronyms stand for assigned amount units (AAUs), certified emission reductions (CERs), removal units (RMUs) and Emission Reduction Units (ERUs).

3.2.3 Stakeholder response

During the engagement process some stakeholders have expressed concerns that there is likely to be insufficient liquidity in the New Zealand market (especially in the first few years of the transition), and that firms will be poorly placed in the international carbon market, thus forcing New Zealand firms up towards the top of the price scale.[7] The possible use of a price cap has been raised by some, who express concern about exposure to international price volatility while the carbon market is maturing.

Concerns have also been raised from an environmental and reputational perspective on whether there should be greater constraints on the types of units allowed into the New Zealand scheme, such as "hot air" AAUs[8] from Russia, the Ukraine, and other Eastern European countries, and CERs from HFC-23 projects in the CDM.[9]

Conversely, other domestic stakeholders have supported the broad inclusion of Kyoto units in the NZ ETS. They note that AAUs are fully accepted in the Kyoto Protocol, and believe that access to lower-cost units such as AAUs could help to moderate compliance costs under the NZ ETS. Some would prefer for the NZ ETS to allow trading in AAUs rather than to link to the EU ETS, since unit prices in the EU ETS will be higher than international prices (a reflection of EU ETS trading constraints). Some stakeholders participating in the carbon market have reported that it will in practice be difficult to identify the source of particular units (eg, from HFC projects) in the secondary CER market at the time of purchase.

There are a range of interrelated issues implicit. These include concerns about possible:

- lack of liquidity
- price volatility and price levels
- environmental integrity issues
- consistency with the spirit of the Kyoto Protocol
- risks on options to link in the future
- risks to the reputation of the NZ ETS.

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[7] Liquidity has technical definitions but it typically means having sufficient volumes and trades in the market so that any one transaction can relatively easily be carried out without an impact on the price in the market.

[8] The term "hot air" is used to describe Kyoto units that were allocated to certain Eastern European countries over and above their likely emissions. They are criticised from an environmental viewpoint as having no investment in emission reducing activities associated with them. Not all commentators agree with this viewpoint, arguing that as hot air AAUs are within the Kyoto system, they represent an emission that will occur. Given this, such commentators would argue that using hot air AAUs for compliance purposes is environmentally sound.

[9] HFC-23 is a very potent greenhouse gas with a global warming potential of 11,700. One of the concerns of HFC-23 projects is that they can create perverse incentives to increase HFC-22 production (an ozone depleting substance regulated under the Montreal Protocol). Another concern is that HFC-23 projects reap disproportional profits, because the costs of projects are relatively low and volumes of CERs generated very large. Concerns about perverse incentives are being addressed by the UNFCCC and in the Montreal Protocol process. In relation to the second point, the government has reviewed advice that these types of opportunities will soon be exhausted and the market is now already focusing on other opportunities.

Further to this, some stakeholders have suggested that it would be preferable to operate the penalty regime leniently at first. They argue that this may assist in building confidence in the market and may also assist New Zealand firms successfully entering the cheaper end of the carbon market. Related to this, a common piece of feedback from engagement is that it is desirable to set the rules as quickly as possible for what types of Kyoto units are able to be surrendered in NZ ETS in order to create a level of certainty going forward.

3.2.4 Comment on the issues raised by stakeholders

3.2.4.1 Units of trade

The government acknowledges the complexity of the arguments for and against placing restrictions on the importation of assigned amount units into the NZ ETS. Options include placing no restrictions on imports of AAUs (the proposal in the framework document), restricting the import of AAUs to those from specific countries, or prohibiting AAUs completely from the NZ ETS. The government wishes to engage further on these issues before making a further determination on the eligibility of units under the NZ ETS.

A useful piece of additional information gleaned from the engagement process and from the reports from Point Carbon on the operation of the international carbon market is that it is problematic to identify the source of particular units (eg, hydro-fluorocarbons or HFCs) in the secondary CER market.[10] This has implications for determining which units should be permitted for use in the NZ ETS.

3.2.4.2 Government intervention in the market

The government considers that it would be preferable to have New Zealand firms operating effectively within the international carbon market, rather than relying on the government. Private stakeholders are often more accomplished than governments at managing risks and opportunities in all sorts of markets. This participation could occur through internationally-linked firms entering the carbon market through parent companies, domestic firms entering the carbon market in their own right, or domestic firms securing units through carbon market intermediaries.

At a Carbon Markets workshop hosted by the Ministry for the Environment in Auckland on 19 November 2007, there was considerable discussion on the likely supply of Kyoto units during the first commitment period. International experts were of the view that there was significant confidence that the carbon market was becoming more workable and that there was a significant supply of project-generated Kyoto units entering the pipeline.

[10] Reports from Point Carbon (plus a glossary of carbon-related terms) on the operation of the carbon market are available on the climate change website (www.climatechange.govt.nz).

It is clearly important to ensure that the NZ ETS operates effectively, and that price-based distortions are avoided, especially in the short run. There is some evidence to suggest that smaller players are at some disadvantage in the international carbon market, especially in securing primary CERs (which are currently typically the cheapest source of Kyoto units). Further, it is possible that AAU sales from other Kyoto countries will be limited to government-to-government transactions.

There may, therefore, be some justification for New Zealand government involvement in the international carbon market to facilitate domestic trading activities. For example, the government could support domestic liquidity by purchasing additional international Kyoto units and allocating them via commercial auction. Such powers are already provided under the Climate Change Response Act 2002. A special appropriation may be required to enable the government to purchase international units and resell them. When carried out on a commercial basis, such an auction would not distort domestic prices or require any changes to international linkages.[11]

Depending on how they were designed, measures permitting government intervention in the domestic market in order to address liquidity or control unit prices could have serious consequences. For example, they could:

- introduce a significant source of policy uncertainty that would influence market behaviour
- block the market from operating efficiently and finding the most cost-effective responses to emission constraints
- devalue free allocation, unit trades, and futures contracts that had been made prior to the intervention
- create vulnerability to political influence
- undermine the environmental integrity of the NZ ETS
- constrain the ability to link the NZ ETS bilaterally to other trading schemes.

In the long run, the goal of the NZ ETS is to expose the New Zealand economy to the price of emissions. As such, measures such as price caps, price floors, or temporary constraints on international linkages are not desirable as long-run policy instruments, assuming that the international carbon market continues to operate effectively.

Despite the drawbacks listed above, if the government wished to reserve the option to intervene in market pricing while an international agreement was in place, then it would need to consider what circumstances would justify intervention, and what mechanisms would be used to make the intervention. One option would be to delegate authority to a designated Minister (such as the Minister of Finance) to determine when intervention was warranted. It would be difficult to predict the circumstances under which this might occur, so it may not be possible to prescribe specific criteria for such interventions. Section 12 of the Reserve Bank Act could provide a useful model for this approach.

[11] Some stakeholders have expressed concerns that by preserving the right to buy units internationally and auction them into the NZ ETS, the government may undermine the operation of private sector carbon market intermediaries.

Some stakeholders have expressed an interest in relaxing the requirement to surrender units annually on the basis that this would allow participants more flexibility in the carbon market. Such an option has some merit but the government does not feel it is necessary; participants can (within the proposed NZ ETS framework) plan their unit purchasing strategy a number of years ahead. However, as detailed in the next section, the government has decided to moderate the non-compliance penalty regime for each sector's first year of entry into the scheme.

3.2.5 Conclusions for legislative purposes

Regulations made under the Climate Change Response Act 2002 already exclude certain types of Kyoto units from the emission unit register (such as CERs and ERUs from nuclear projects), and limit the transactions allowed in respect of other types of units (namely tCERs and lCERs from CDM forestry projects).

The Bill provides for the use of all types of Kyoto units in the NZ ETS, subject to these restrictions on CERs and ERUs noted above and any other restrictions that may be put in place by regulation after the Bill is passed. This means that no restrictions will be placed on the import of AAUs under the Bill, but the government will retain the ability to impose such restrictions via regulation in the future.

The government intends to analyse a series of options prior to making a final decision on the eligibility of AAUs. Relevant factors include estimates of possible price effects, reputation of the NZ ETS, consistency with the spirit of the Kyoto Protocol, effects on options for linking with other trading schemes, and possible behaviour by other nations vis-à-vis AAUs. The ongoing considerations of the Climate Change Leadership Forum will be highly relevant to this consideration. The government remains open to considering further views from stakeholders and Māori.

A number of decisions have been made to provide a level of direction for the emerging carbon market in New Zealand. These decisions are to:

- allow in CER units from HFC projects – partially to add liquidity and partially as it is very difficult to stop them entering (through the secondary CER market) in practice[12]
- make clear that there is no volumetric limits on Kyoto units entering the NZ ETS (to reduce risks of price spikes in the NZ ETS and reduce the cost of compliance generally)
- make clear that the government has no liability for any Kyoto units (and will not be bound to accept these units for compliance purposes) that are banked and subsequently become invalid for New Zealand's compliance under future international agreements. In the event there is no international agreement in place post-2012, the government will need to make a determination regarding the applications of banked units. Such a determination could appropriately be included in the scope of the NZ ETS review

[12] There are criticisms of HFC generated units under the CDM from an environmental viewpoint (these make up a relatively large proportion of the existing stock of CERs). To the extent that imperfections exist in the Clean Development Mechanism processes, it is appropriate to address these imperfections through improving United Nations processes. Indeed, the Point Carbon reports on the international carbon market did suggest that these processes are improving.

- make clear, subject to the exception in the prior point above, that any changes to the rules on what units can be surrendered for compliance or held in the registry will not apply retrospectively.

The government has moderated the non-compliance penalties relative to its initial proposal. In the first year of a sector's entry into the scheme, firms will face reporting penalties and make-good requirements for unit shortfalls, but will not face a monetary penalty for unit shortfalls. This effectively means that although the first date on which firms must surrender units in the NZ ETS is 30 April 2010 (for the forestry and liquid fossil fuel sectors), the first date on which those firms must surrender units in the NZ ETS *with monetary penalties applying* is not until 30 April 2011.

In addition, the government will invite all sectors (excluding forestry and liquid fossil fuels) to monitor and report their emissions on a voluntary basis for the year (two years for agriculture) prior to entry to the NZ ETS, with no penalties for errors in reporting in that year. Note that as this is voluntary, it is not provided explicitly in the Bill.

Although some stakeholders have argued for the inclusion of a price cap in the NZ ETS, the government's view is that the risks around intervening in the market in this way outweigh the benefits. It is the government's clear preference that New Zealand companies operate effectively within the international carbon market.[13]

The Bill provides for the government to offer New Zealand units for sale by public tender. In this case, the designated Minister will consult with the Minister of Finance to specify the terms and conditions of the offer (see clause 43, new section 75). There is no specific mention of a price cap (or price floor) in the Bill – this constitutes a change from the position outlined in the framework document. There are, however, provisions for sale of NZUs into the New Zealand market at a "specified price" provided two conditions are met (see clause 43, new section 146):

1. No subsequent commitment period is specified or determined under the Protocol, and there is no successor international agreement to the Protocol, and
2. No international market for approved overseas units exists.

In this case, the "specified price" is defined as the monthly average spot price for the two years prior to the end of the first commitment period.

As noted above, some stakeholders have expressed concerns that by preserving the right to buy units internationally and auction them into the NZ ETS, the government may undermine the operation of private sector carbon market intermediaries. This risk is likely to be small so long as the government runs any auctions it carries out on a fully commercial basis, as the ability of market participants to sell units internationally (or alternatively to bank AAUs) will ensure that increases in the supply of NZUs will not unduly depress the market price.

[13] The volumes of units that may be required in the NZ ETS pre-2012 are small compared to the volumes of Kyoto units projected to be available in the same period, even assuming that AAUs do not come onto the market.

The government notes that as a supplement to broad linkages to the international Kyoto trading market, bilateral linkages to other Kyoto-compatible emissions trading schemes offer some potential to help improve liquidity and serve as a back-stop on unit prices in the domestic New Zealand market. The Bill provides the mechanisms for such linking and officials will pursue this option further.

3.3 Allocation

3.3.1 Context

Allocation is the most complex part of ETS design and is often the most controversial. The method used to make that allocation is an important factor in ensuring that the market works efficiently, that the cost burden of the ETS is shared fairly across the different parties, and that the ETS is kept as administratively simple as possible. Deciding on how to allocate units is important for ensuring that the cost burden of an ETS is shared fairly across the different parties involved. At a conceptual level, allocation decisions ensure that an equitable burden is shared between taxpayers, consumers, firms and sectors.

The simplest method of allocation is to offer the relevant units for sale. However, providing zero free allocation immediately would entail a significant financial shock to those ETS participants who are emissions intensive and cannot readily pass on the cost of those units to their customers. For this reason, assistance (often in the form of free allocation)[14] is typically provided to vulnerable participants to make the adjustment to an ETS.

The arguments for continuing free allocation beyond a transition period are less strong. Free allocation involves sometimes difficult value judgements (such as whether to gift units to new start-up businesses as well as to established businesses). In addition, auctioning units generates revenue for the government, which can then be used to offset taxpayer liabilities under international agreements, to support households in making the shift to lower-emission lifestyles or otherwise assist the economy. For these reasons, auctioning is generally the favoured long-term allocation method.

One of the key principles underlying the NZ ETS is that emitters face the full cost of their emissions. When this is achieved, it creates incentives to identify the widest range of emission reductions and to undertake all emission reductions that can be achieved for less than the price of emission units. Firms face this full cost through the obligation to surrender units, regardless of whether they buy them or receive a level of free allocation. Allocation methods can be used to reduce some of the impacts of the introduction of the NZ ETS, without changing the fundamental incentives to limit emissions across all opportunities.

[14] Assistance can be provided to firms through a variety of ways, including the provision of free allocation or a progressive obligation. This paper is drafted assuming that assistance is provided in the form of free allocation, the government's preferred approach at this stage.

3.3.2 Government's in-principle decisions as outlined in the framework document

As part of the long-term core design of the NZ ETS, the framework document noted the government's proposed approach of allocating NZUs into the market through a combination of sale (ie, auction) and free allocation (gifting). The government has also agreed in principle that the level and duration of free allocation will be considered against the following underlying principles:

1. The government will attempt to maintain broad equity of treatment between and within sectors.
2. The government will seek to avoid long-term regrets in designing and implementing short-run policies.
3. The government will make the transition more manageable by being relatively generous in the first commitment period (CP1), from 2008 to 2012.
4. The government will not provide assistance to firms whose profits will be largely unaffected by the introduction of the NZ ETS.
5. The government will favour assistance via gifting units ("free allocation") as opposed to a progressive obligation, but will leave open the possibility of using a progressive obligation in some sectors.
6. The government will move to zero assistance over time for overall economic efficiency, equity and administrative reasons.

The government also made a number of in-principle decisions regarding the total level of free allocation of emission units to different sectors in the economy:

- In the forestry sector, free allocation will be provided such that the Crown assumes a total liability (taking the cost of the provision of the *de minimus* thresholds into account) for deforestation emissions as follows:
  - from 2008 to 2012, 21 Mt CO_2-e for pre-1990 exotic forest, plus a relatively small allocation associated with weed control
  - from 2013, an additional 34 Mt CO_2-e for pre-1990 exotic forest.
- The agriculture sector will be provided with a free allocation pool equal to 90 per cent of 2005 emissions (nitrous oxide from fertiliser use and nitrous oxide and methane from livestock) when it is brought into the NZ ETS.
- The pool of units for eligible trade-exposed industrial producers will be based on 90 per cent of 2005 emissions from those producers.
- Indirect emissions associated with the consumption of electricity, as well as direct emissions from stationary energy and direct emissions from non-energy industrial processes, will be included in the scope of emissions from those producers.[15]
- Starting from 2013, when agriculture is brought into the NZ ETS, the free allocation pools for industrial producers and agriculture will decrease on a linear basis so as to phase out assistance completely by 2025 (ie, reaching a zero level in 2025).

[15] The basis for allocation for electricity consumption will be one that compensates firms for the cost impact. It therefore needs to be based on the emissions from marginal generation rather than average generation.

- New sources that begin emitting during the period of the free allocation will not have any access to the pool of free allocations.
- Firms that cease production will not receive further free allocation, but will retain ownership of any units in their holding account.
- Zero free allocation will be provided to the upstream points of obligation in the liquid fossil fuel and stationary energy sectors, electricity generators, or landfill operators.

The government's proposal provided for a review of the NZ ETS prior to the start of the next commitment period.

3.3.3 Stakeholder response

There are three broad areas of concern to stakeholders with regard to the allocation provisions in the Bill: the phase-out of free allocation, the treatment of growth in emissions, and the scope of assistance with regard to liquid fossil fuels and wood waste. These are dealt with in turn.[16]

3.3.3.1 Phase-out of free allocation

A major element of concern from stakeholders from both energy-intensive industry and agriculture is around the proposed phase-out of free allocation. The underlying concern being expressed by these stakeholders is that the phase-out of free allocation would erode the competitiveness of New Zealand firms by making them face the price of emissions while many of their international competitors are not covered by controls of a similar stringency.

This possibility has been raised by several players from industry in the engagement undertaken to date. They argued that without a clearly stated intention to maintain relatively high levels of assistance for at least the foreseeable future, there is a realistic prospect of them running down their existing capital stock through a lack of investment and renewal – thus increasing the chances of plant closure. Further to this, they argue that the lack of investment could reduce New Zealand's flexibility to adapt to future international agreements, and that the loss of business activity will fail to provide any environmental gain, as it will lead to "carbon leakage" – the situation where reductions in emissions in New Zealand cause commensurate increases in emissions elsewhere.[17]

[16] There were also a range of issues raised by stakeholders around the later 2008 decisions. These include concerns around the nature of rewards for early action, working through definitional issues associated with determining trade exposure, and dealing with firms with very uneven emissions profiles over time. These are not discussed in this paper.

[17] Different stakeholders have argued that the avoidance of leakage is important for different reasons. Some have approached the issue largely from an economic viewpoint. Others have emphasised that in their view, avoiding leakage is primarily an environmental issue.

Many of these stakeholders appear to accept that the proposed initial levels of allocation (90 per cent of 2005 emissions)[18] will address this problem in the short term, but are concerned that their loss of competitiveness will increasingly become unmanageable after the phase-out of allocation begins. These comments apply to stakeholders from both industry and agriculture. In the case of agricultural production, unless appropriate mitigation options are identified, some stakeholders have argued that their existing farming practices will become uneconomic (at current price levels etc).

One possible solution, raised by some stakeholders, is that the planned review of the NZ ETS incorporates a commitment to maintain alignment with trading partners in terms of approaches to allocation. A different approach, suggested by others, was to effectively extend the period of free allocation beyond 2025.

In contrast, others, especially those in the NGO community, have expressed a concern that the proposed assistance to industry is too generous, the phase-out of assistance is too slow, and households are carrying too much of the cost of the NZ ETS relative to businesses.

3.3.3.2 Treatment of growth in emissions

A concern has been raised in the engagement process that the focus on absolute obligations and allocation in the NZ ETS will stifle economic growth as (particularly) emissions-intensive investment will occur elsewhere. International competitors may not face a price of carbon, or in some cases, may face an intensity-based approach (such an approach would not require emitters to face any carbon-related costs for growth in emissions so long as it is within an efficiency benchmark).

Some stakeholders have therefore argued that an intensity-based approach as opposed to an absolute basis for obligations and/or allocation would be more appropriate going forward. Tied to this is the concept of a new entrant pool so that new entrants would also gain some free allocation assuming they were operating in a carbon-efficient manner.

3.3.3.3 Scope of assistance – liquid fossil fuels and wood waste

A concern has been raised by some who are exposed to price increases in liquid fossil fuels (or other inputs such as wood waste used in boilers) that the assistance package does not equitably reflect cost increases throughout the economy.[19] This has been raised by sectors with a particular exposure to price increases in liquid fossil fuels (such as the tourism, fishing and mining industries).

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[18] Subject to appropriate resolution of the later 2008 decisions on allocation between firms.

[19] The assistance package for industry covers emissions from direct use of coal, gas and geothermal energy; indirect emissions from purchased electricity; and industrial process emissions.

3.3.4 Comment on the issues raised by stakeholders

3.3.4.1 Phase-out of free allocation

The response of trade-exposed producers in New Zealand to the phase-out of free allocation over time will be influenced in part by the rate at which their international competitors face comparable emissions pricing regimes.[20] At present, there is a high level of uncertainty regarding the terms of any international agreement that would succeed the Kyoto Protocol post-2012. The government accepts that the signals it provides around future levels of allocation will affect investment decisions and that the issues raised by stakeholders in this area are very important.

Having said this, support for one business / sector comes at a cost for the rest of the economy. It is in New Zealand's interests to ensure that our business environment encourages growth in areas of the economy that maximise New Zealand's economic advantages and take into account the carbon-footprint of specific activities. As such, putting in place a framework that attempts to avoid the possibility of firm closure is not appropriate. However, the framework should continue to recognise the value of highly efficient, trade-exposed industries to New Zealand and support them in the transition toward a lower-carbon economy.

The logic underpinning the development of the framework document is that to the extent that subsequent international agreements remain imperfect, it is not in New Zealand's interest to attempt to shield domestic firms from the impact of those weaknesses in the longer term.[21] Replicating the sub-optimal policy settings of trading partners merely stifles innovation and entrenches structural inefficiencies. Temporary assistance would, however, be justified to protect New Zealand firms during a transition phase if there was a clear expectation that the companies they compete against will face greenhouse gas controls of a similar magnitude to those in New Zealand in the foreseeable future (the no-regrets principle).

It is clearly in New Zealand's interests to work with other countries to attempt to improve the international agreement that follows the Kyoto Protocol, and encourage coverage of a greater number of countries. The NZ ETS is not designed to avoid the possibility of some carbon leakage occurring. Any leakage occurring from New Zealand would be small on a global scale. Designing the NZ ETS to avoid carbon leakage from New Zealand would increase the overall cost to the New Zealand economy. Ultimately, the solution to carbon leakage concerns comes through improving international climate change agreements.

The following is a summary of the key arguments surrounding the government's proposal to phase out assistance by 2025:

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[20] There are a range of influences (beyond policy settings in an ETS) on firm behaviour such as the role of sunk capital, access to a skilled and stable labour force and the general nature of operating in particular areas or locations.

[21] Some stakeholders have pointed to the 'no regrets' principle as a rationale for a high level of ongoing assistance, regardless of the policy settings of international competitors. Important to note is that the no regrets principle is a time limited concept, as was made clear in the framework document.

- Moving to zero levels of free allocation is preferable on grounds of overall economic efficiency, administrative ease and equity.
- The arguments around zero free allocation leading to overall economic efficiency are dependent on effective revenue recycling.
- Higher levels of ongoing assistance to some parts of the economy come at the expense of other parts of the economy.
- Moving to zero free allocation is consistent with a message that emissions should increasingly be viewed as a cost of production, in the same way that energy, labour and capital costs are viewed as costs of production.[22]
- A clearly signalled path going forward provides business with certainty but there is a tension in providing certainty to business while retaining flexibility in the face of uncertain international agreements.
- A clearly signalled path going forward avoids (or at least significantly reduces) the risks of difficult "repeat game" dynamics.[23]
- Signals sent now around the level of free allocation going forward will affect investment patterns in the short term.

However, the government also notes that although moving to zero free allocation is preferable, the arguments on the rate at which to transition to zero free allocation are less clear. Moving to zero levels of free allocation is not essential for the NZ ETS to operate effectively – as the marginal cost signal that an ETS framework sets up provides the incentive to reduce emissions.

Given these points (particularly the importance of ensuring that investment is maintained in New Zealand businesses in the short run), the government notes that several policy mechanisms are available within the proposed NZ ETS framework to moderate the proposed phase-out of free allocation. These include the following (which are not mutually exclusive):

1. Extending the end date of free allocation beyond 2025.
2. Changing the rate of decline in free allocation post-2012 (possibly by delaying the date at which significant decline in allocation occurs).
3. Moving towards a concept of a rolling window of free allocation (of up to 10 years).
4. Reviewing the level of free allocation as part of the broader NZ ETS review prior to the end of the first commitment period and subsequent commitment periods.

[22] Implicit in this argument is a recognition that businesses are not subsidised for other costs of production, regardless of whether they have technologies to allow them to avoid these costs.

[23] Dynamics to avoid include incentives to lobby for greater levels of assistance going forward and (worse), to grow emissions to gain more generous levels of assistance in the future.

3.3.4.2 Treatment of growth in emissions

Definition of emission obligations

An intensity-based approach to defining emission obligations has not been favoured by the government for the following reasons:

- Intensity-based approaches, in addition to being administratively difficult, provide an incentive inconsistent with New Zealand's economic signal received under the Kyoto Protocol (the Kyoto Protocol is expressed in absolute terms). Environmental pressures suggest that successors to the Kyoto Protocol may well be absolute in nature and more stringent than the Kyoto Protocol.[24] In order to reduce the costs of meeting future international agreements, New Zealand should seek to reduce its emissions profile (where cost effective). A key element of this is to ensure that new economic growth is able to support an emissions price.
- Requiring all new emissions growth (from both incumbents and new market entrants) to fully pay the cost of carbon may well come at the cost of some new investment foregone in New Zealand but there is no evidence that this will come at a major economic cost to the nation.
- If circumstances change and investment that was not pursued does become viable, much of this investment foregone may occur in the future.

Given the NZ ETS objective of meeting international obligations at least cost in the long run, the framework document makes clear that if international agreements were to include elements of intensity-based approaches then it would be appropriate to reflect this in domestic policy settings.

After the stakeholder engagement to date, the government remains of the view that growth in emissions should face the full cost of emissions, given the quantitative nature of the Kyoto Protocol (and given the possibility of more stringent international climate change agreements in the future).

It is easy to point to specific investments that may not occur under the approach proposed by government. However, there are also real effects from imposing the carbon costs on the economy associated with those investments. These costs manifest themselves in two ways. Firstly, the carbon cost of that investment would (most likely) be covered by increased taxation relative to the counterfactual – and this taxation imposes a cost on the economy. Secondly, an intensity-based approach will not (significantly) aid the adjustment cost to a lower carbon economy, so those adjustment costs that New Zealand faces in moving to a lower carbon economy may well be magnified, even if they are delayed.

Some stakeholders have suggested that intensity-based approaches should be used for a short period of time, or alternatively that certain parts of the economy should receive an intensity-based approach. (The variant of this is that certain parts of the economy should be permitted to grow without paying the carbon cost associated with that growth). The government does not accept these arguments as:

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[24] An alternative way of expressing this is that it is the total amount of emissions that is important – both from an environmental viewpoint and in the Kyoto Protocol – and not the efficiency with which we produce those emissions.

- adjusting from an intensity-based approach to a quantitatively-based agreement (if that quantitative approach is to be equitable with other parts of the economy) will be very difficult in the future
- identifying (and agreeing) which firms should receive preferential treatment would be highly problematic – and would very likely result in a significant proportion of New Zealand's emissions being managed on an intensity-basis
- it is not at all clear that allowing emissions growth in certain emissions-intensive sectors (with other parts of the economy paying for that growth in emissions) will increase net economic welfare.

Definition of intra-sectoral allocation

Although the government does not support intensity-based approaches to defining firms' obligations to surrender units, the government has identified the potential to use intensity-based approaches for the purpose of distribution of units within an overall cap on free allocation defined for a sector. This possibility was signalled (using terminology around benchmarking) in the framework document. In theory, such an approach could be used to accommodate (some) growth in emissions by incumbents or (by logical extension) new market entrants without changing the overall size of the allocation pool. However, care would be needed to avoid administrative complexities, ensure equitable allocation across the sector, and provide appropriate incentives to encourage less emission-intensive production. Note that the government's proposal in the framework document specifically excluded the provision of free allocation (or other forms of assistance) to new market entrants.

A further (and not totally unrelated) point that has been raised by some stakeholders is whether firms' allocations should be reduced if they significantly reduce their output (as opposed to closing production altogether – in which case firms receive no further free allocation). This issue can be considered further in the later stage of 2008 decisions.

3.3.4.3 Scope of assistance – liquid fossil fuels and wood waste

Determining the appropriate boundaries for any assistance package is problematic. Having said this, it should not be the intent of government to fully compensate for all price rises. The very point of introducing a price of emissions is to change relative prices and thus to influence behaviour.

Liquid fossil fuels

In terms of liquid fossil fuel cost increases, there is no doubt that some sectors will be affected more than others. In its analysis of policy options, the government has contextualised emission-related price rises within the level of variation there has been recently in liquid fossil fuel prices.

The price of petrol and diesel is projected to increase by between 4 and 7 cents per litre if the price of emissions is between $15 and $25 per tonne of CO_2-e. The price of petrol fluctuates due to changes in the price of oil and exchange rates. Since October 2005, the lowest weekly average price of petrol in New Zealand occurred in December 2005 at 131.9 cents per litre. The highest price over the past two years occurred in August 2006 of 176.9 cents per litre. This is a

change of 45 cents per litre.[25] Similar changes would be applicable to all other liquid fossil fuels.

The NZ ETS will result in a one-off increase in the price of liquid fossil fuels, and then ongoing additional fluctuations depending on the price of emission units. While this change will not be reflected in the cost structures of firms in countries without emissions pricing on liquid fossils, it is clearly within the fluctuations that already occur in the market.

Within this context, the cost increases for liquid fossil fuels associated with the NZ ETS are relatively small. Further to this, the administrative challenge of introducing the NZ ETS would increase significantly if assistance were to be provided for increases in costs of liquid fossil fuels. This is due in large part to the numbers of firms potentially affected, the difficulty of determining trade exposure, the variable size of the firms, and the operational structures of the firms (eg, high use of contractors and external providers), all of which could contribute to potential distortions in the domestic transport market. For these reasons, the government has not included assistance for liquid fossil fuel prices rises in the overall assistance package.

One issue that has been raised is that liquid fossil fuels are used in electricity generation, especially as a dry-year reserve, and there is no assistance for firms that face electricity price increases in 2009. It is not recommended that any assistance be provided for this possibility as the effect is likely to be relatively small.

Wood waste

A small number of firms in the forest products area are (potentially significantly) exposed to changes in the costs of wood waste and related products. Wood waste (used as a fuel source and as a material input in some processes) could rise in price because it is a substitute for coal, and coal will rise in price. Estimating the extent of this exposure, and the actual price effect, would be extremely difficult.

In theory, it would be appropriate to consider adjusting the assistance package for items such as wood waste if it could be shown that firms faced significant cost increases as a result of the introduction of the NZ ETS.[26] In practice, however, it is not feasible to provide compensation for all price rises, especially those that are in the nature of opportunity costs. Furthermore, opening up the assistance package to second-order price increases would increase the administrative challenges in running the NZ ETS significantly.

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[25] Data were obtained from http://www.med.govt.nz/templates/ContentTopicSummary____20094.aspx.

[26] In many (but not all) cases, the firms affected do not actual face cost increases *per se*. It is more of an opportunity cost argument as the firms in question produce the wood waste through part of their overall activities.

3.3.5 Conclusions for legislative purposes

3.3.5.1 Phase-out of free allocation

The legislation as introduced maintains the policy as was discussed in the framework document. The legislation does make clear however that the planned review of the NZ ETS must consider the emissions pricing policies of major trading partners and the implications of these policies vis-à-vis allocation (see clause 43, new section 147(2)(b)(v)).

The government wishes to make it extremely clear that **final considerations on the matter of phase-out of allocations are not complete**, and that the ongoing views of the Climate Change Leadership Forum – and the outcomes of other ongoing engagement and processes – are important. If policy changes in this area are to be made, a revised approach would most likely include a longer period of time before the level of free allocation decreases significantly. These considerations will be fed into the select committee process.

If there are changes to the phase-out of free allocation, one option that could be considered would be to specify that a certain (perhaps low at first) proportion of allowances must be auctioned. Such an approach would be consistent with emerging international trends and also a desire to move towards a lower level of free allocation in the future.

3.3.5.2 Treatment of growth in emissions

The government continues to support the policy position outlined in the framework document – ie, that obligations be on an absolute basis as opposed to an intensity basis and that growth in emissions at a sector level face the full cost of emissions. The government maintains the position that the overall ceiling on total assistance to agriculture and industry remain unchanged at 90 per cent of 2005 emissions.[27] This is reflected in the Bill as introduced to the House.

The government is open to considering how benchmarking / intensity approaches to free allocation could be used to accommodate some growth in emissions without changing the overall allocation pool. This option may be particularly relevant if the time period for the phase-out of free allocation were to be extended beyond 2025 in the legislation and can be examined as part of the 2008 decisions post-legislation. The government is open to further discussion on this issue.

[27] During engagement, it was mentioned that the intent was for the draft legislation to include a specific figure in terms of the overall package of allocation to the agricultural sector. The legislation is not written in this way; it includes a formula for calculating the overall allocation package to the agricultural sector. The reason for including a formula as opposed to a specific figure is that the methodologies for estimating emissions from agriculture are being reviewed so it is not possible to confirm 2005 emission levels (and therefore the size of the agricultural allocation package) at this point.

3.3.5.3 Scope of assistance – liquid fossil fuels and wood waste

From the government's view, the balance of analysis does not support changing the policy position outlined in the framework document that no allocation assistance should be provided to firms for cost increases associated with liquid fossil fuels or other input items such as wood waste. The Bill implements this policy by restricting free allocation to persons or classes of persons within the industrial, agriculture and pre-1990 forestry sectors (see clause 43, new sections 69–72).

3.4 Emissions from limestone applied to soils

The government had proposed that carbon dioxide (CO_2) emissions attributable to the application of limestone to soils be subject to obligations under the NZ ETS from 1 January 2010 as a part of the industrial processes sector. The rationale for this was threefold:

1. There are a number of different industrial process emissions resulting from the use of limestone. The different uses were amalgamated, along with emissions from soil application, into industrial process emissions for administrative ease and efficiency.
2. The emissions are of CO_2, rather than of nitrous oxide or methane, and therefore are not covered by the government's memorandum of understanding with the agriculture sector.
3. Distinguishing limestone sold for use on soils from other limestone used for other purposes may be challenging.

However, further research into the New Zealand inventory has revealed that the liming of soils (with limestone) is currently reported in the land use, land-use change and forestry (LULUCF) section of New Zealand's greenhouse gas inventory and that these emissions do not form part of New Zealand's calculation of our Kyoto liability. This is because New Zealand has not elected to account for anthropogenic greenhouse gas emissions by sources and sinks resulting from forest management cropland and grassland management (LULUCF) under Article 3.4 of the Kyoto Protocol.

On this basis, the government has decided to exclude these emissions from the NZ ETS, and this decision is reflected in the Bill.

4 Themes from Engagement with Māori

4.1 Context

The government has undertaken two rounds of engagement with Māori during the development of post-2005 climate change policies. The first round of hui were held in March and April 2007. In October and November, a second round of hui occurred, focusing on the NZ ETS. This included: 12 regional hui, a national hui for Māori (on 26 October) and a national Māori forestry hui (8 November).[28]

A Māori Leaders Group, a Māori Reference Group, and an executive of that Group (the Māori Reference Group Executive) were established to provide advice and assist with Māori engagement.

4.2 Key themes from regional hui

The key themes that emerged from the regional hui included:

1. **Te Tiriti o Waitangi – rights and impacts upon settlements:** Rights under the Treaty were affirmed and concerns were expressed about the impacts of the NZ ETS on the value of past settlements or current treaty negotiations, and the issue of "good faith" negotiations.
2. **Forestry specific issues:** Much of the discussion comprised of Māori seeking clarification and a better understanding of the impacts of NZ ETS on the variety of land ownership arrangements, particularly in relation to Māori freehold land under the Te Ture Whenua Māori Act 1993, and the impacts on the various relationships between land owners and owners of forests on that land. There were requests for modelling of the various options to be made available. A key issue for discussion was the possible allocation of NZUs to pre-1990 indigenous forests. It was considered that allocation based on historic deforesting rates would be inequitable.
3. **Recognising and addressing rohe-specific issues:** Many hui focused on gaining a better understanding of the complexities of the proposed NZ ETS and how it impacts on diverse Māori realities. Every hui noted issues that were specific to their rohe and wanted to know more about the opportunities and risks presented by the NZ ETS in relation to their rohe.
4. **Allocating research funds for Māori and rohe-specific issues:** There was a desire for relevant, focused research to enable Māori to make informed decisions on behalf of their iwi, hapū, shareholders, and future generations.

[28] Note that the two national hui were supported by government but organised and run by Māori.

5. **Understanding risks and opportunities in the NZ ETS, and issues of timing:** Hui attendees actively sought to understand the opportunities and risks presented by the NZ ETS. This included business and research opportunities, and understanding how to acquire and trade carbon credits domestically and internationally.

6. **Consultation process:** The consultation process again came under scrutiny. Some felt that Māori were not being recognised as a Treaty partner. Tight timelines in which to understand and then comment on the NZ ETS and its impact on Māori were also criticised.

7. **Agricultural sector impacts:** The timing of the entry of the agricultural sector into the NZ ETS was questioned, along with concerns that other sectors may be supporting or subsidising the emissions from the agricultural sector until 2013.

8. **General:** There were a number of other key points raised relating to the ability of New Zealand to influence international behaviour, the impact of the NZ ETS on the import/ export sector of the New Zealand economy, opportunities around renewable energy generation, the Crown's role in accelerated land conversion, and scepticism about the actual effect of the NZ ETS on households, particularly low income households.

The Māori Reference Group worked to synthesise the themes and issues raised by Māori into three proposals. These proposals were supported by participants at the National Māori Hui, and the national Māori forestry hui, and were presented to Ministers on 13 November. The three proposals are:

1. **Allocation of New Zealand Units (NZUs) aligned with Crown Forest Lands (CFLs) to an approved Māori body** for immediate use on the condition that the value of the equivalent NZUs will be made available when claimants settle CFL lands. In addition, tag part of the use of CFL NZUs specifically for ongoing Māori education and research on the Māori economy as determined by Māori including wananga, Māori carbon trading, Māori science etc.

2. **Include pre-1990 indigenous forest in the NZ ETS and increase the allocation of NZUs for pre-1990 indigenous forests** to the same level as pre-1990 exotic forests for the first commitment period (ie, from 8.1 million NZUs to 21 million NZUs).

3. **Recognise those forest owners that could not change land use or prepare for deforestation requirements from 2002** by allocating only two-thirds of the total NZUs for pre-1990 exotic forests pro rata; and allocating one third of pre-1990 NZUs specifically to those forest land owners who, at 2002, could not change their land use or prepare for the deforestation requirements, initially announced by the government in 2002.

4.3 Comment on the key themes and proposals

Ministers have agreed to investigate the feasibility of these proposals and will meet with the Māori Leadership Group and the Māori Reference Group Executive to discuss the issues in more detail before the end of the year (some of these issues are discussed in greater detail in the previous section). Ministers have also agreed to consider further resourcing of the Māori Leadership Group and the Māori Reference Group.

Many of the themes emerging from the hui related to understanding the options for participation in the NZ ETS and how the NZ ETS impacts upon iwi/Māori. To assist with this understanding (and with policy development), the government commissioned a study *Māori Impacts from Emissions Trading Scheme*.[29]

Going forward, the Ministry of Agriculture and Forestry (MAF) and Te Puni Kōkiri (TPK) are planning to co-ordinate workshops for Māori forestry interests with the aim of promoting wider understanding of NZ ETS implications and business opportunities.

[29] The report *Māori Impacts from Emissions Trading Scheme: Detailed Analysis and Conclusions* by 37 Degrees South and Cognitus is available at www.climatechange.govt.nz.

5 Clarification of the Government's Allocation Proposal

There are two important points of clarification that the government is keen to make with regard to its proposal for assistance to firms through free allocation. The first relates to the calculation of the size of the allocation package for industry (including the role of an emissions threshold, if any), and the second relates to the definition of new firms in terms of free allocation. This section concludes with an overview of the proposed process for the development of allocation plans as presented in the Bill.

5.1 Size of the allocation package for industry

In the framework document, the government had suggested as a starting point for engagement that the eligibility of individual industrial firms to receive a free allocation would be limited to those that pass a simple trade-exposure test, and have total emissions (from non-energy industrial processes, direct stationary energy and consumption of electricity) above 50,000 tonnes of CO_2-e.

The section of the Bill on allocation to industry (see clause 43, new section 70) provides for free allocation to persons or classes of persons who:

- are considered by the Minister as likely to be trade exposed; and
- have specified emissions above a prescribed threshold (if any); and
- carry out an eligible industrial process activity (see Part 4 of Schedule 3); or
- as a result of the obligations imposed on eligible stationary energy activities (see Part 3 of Schedule 3) face increased costs in respect of the person's (a) direct use of coal, natural gas or geothermal steam; or (b) direct consumption of electricity.

In terms of the calculation of the size of the allocation package for industry, the Bill contains provisions as follows:

- The total allocation pool provided to the eligible persons in the industrial sector will be 90 per cent of the 2005 emissions from those persons. The eligible emissions will include emissions from the direct use of coal, natural gas and geothermal steam; direct emissions from non-energy industrial processes; and indirect emissions from electricity consumed.[30]
- The Minister will have regard to two matters when determining trade exposure for persons in the industrial sector. These include: (a) whether the person competes with a firm or firms that operate from outside New Zealand in respect of products sold into the New Zealand market or exported overseas; and (b) if this is the case, whether the person faces higher costs in respect of the person's emissions than the competing firms and is unable to pass on some or all of the costs due to the competition.

[30] As noted earlier, the basis for allocation for electricity consumption will be one that compensates firms for the cost impact.

The Bill does not specify the methodology for allocating the total pool of units to individual eligible firms, but instead provides for a process to develop allocation plans. This is described in further detail later in this section.

Although the framework document proposed that no free allocation be provided up to a threshold of 50,000 tonnes of CO_2-e emissions for each firm, both the framework document and the engagement process undertaken to date have made clear that the government is not wedded to the use of the 50,000 tonne threshold. The framework document, in the area where the threshold is discussed (page 93), makes clear that "the government is by no means fixed on this particular approach" and identifies for engagement the open questions:

- whether it is desirable to include an emissions-based size threshold at all, and, if so, at what level the threshold should be set; and
- whether it is worthwhile considering an allocation to all firms within a sector once some firms from those sectors have been identified as eligible to receive assistance.

An area of confusion that has arisen in engagement is the interaction between the emissions threshold and the determination of the size of the total allocation pool for industry. The confusion arises because the threshold can be used in two ways: to determine who is eligible to receive units, and/or to determine how many units are available for distribution to that pool of eligible firms.

The Bill does not apply a threshold in determining how many units are available for distribution to the pool of eligible industrial firms. However, the Bill retains the option for a threshold to be applied (among other criteria) in determining which industrial firms are eligible to receive free allocation. Note that if firms below a particular emissions threshold are ineligible for allocation then it would be consistent to exclude their emissions from the calculation of the size of the total allocation package.

In summary, the size of the free allocation pool for industry will be determined by first determining the firms that are eligible on the basis of trade exposure (and an eligibility threshold, if one is applied), and then determining the total 2005 emissions of the eligible firms. The pool of free units will then be 90 per cent of this amount.

It is not possible to determine at this stage the actual size of the package for industry because the detail of the eligibility tests (eg, the trade-exposure test) and the methodology for assessing impacts of the NZ ETS on electricity prices have not yet been finalised. The Bill therefore describes the way of assessing the size of the package for industry, rather than the size of the package itself (see clause 43, new section 70(2)).

Although the Bill notes the *potential* use of an emissions threshold as an eligibility criterion for industrial firms to receive free allocation, there is no intent in the Bill to set the level of (any) threshold at this point in time. Some use of a threshold may well be necessary to ensure the NZ ETS is workable administratively. Defining the appropriate threshold is, however, likely to be challenging as regardless of the level of any threshold, those who do not receive assistance will feel disadvantaged.

The Bill does not provide for the option of a progressive obligation, which had been raised in the framework document. While a progressive obligation does offer the benefit of more easily providing assistance to firms of different sizes than a free allocation model, it has other significant drawbacks (particularly the loss of the full marginal pricing signal) that mean it is not a preferred option. However, in part due to the challenges inherent in setting eligibility thresholds for free allocation, the government remains open to considering the use of a progressive obligation during the select committee process.

Issues associated with distributing the pool of free units among eligible industrial firms, while not easy, are anticipated to be worked through in 2008, in the same way that the difficult issues involved in intra-sector allocation in agriculture are to be worked through in 2008.

5.2 Definition of new entrants applied under allocation provisions

In the framework document, the government had proposed that new sources that begin emitting during the period of the free allocation will not have any access to the pool of free allocation. Likewise, since the total amount of allocation is based on total emissions in a historical base year, the government proposal did not provide for increased allocation at a sector level for growth in production by existing facilities. (Refer to section 3.3.4.2 of this document for further discussion on this issue.) The outcome of these two provisions would be for all new production to face the full price of emissions, regardless of whether the new production comes from new or existing firms.

Queries have arisen in the engagement process around whether the "moving" of a plant from one location to another[31] (perhaps with a relatively short time delay) would mean that the new plant is not eligible for any free allocation.

Although the definitional details are yet to be tied down, the clear intent of the policy is to create incentives for firms to employ more carbon-friendly technologies. This does not have to occur within the same location or site. Given this (and subject to details around this item being worked through), it is expected that a firm that closes one plant and opens a different plant on a separate site would not lose any entitlement to free allocation as a result.

[31] Or alternatively, the amalgamation of two (or more) separate plants within a firm.

5.3 Process for developing allocation plans

Having defined which sectors are eligible for free allocation and what the total pool of free allocation will be for each sector, the Bill then puts in place a process for developing an allocation plan to distribute free units to individuals and firms within each relevant sector (ie, forestry, industry and agriculture) (see clause 43, new sections 68 through 74).

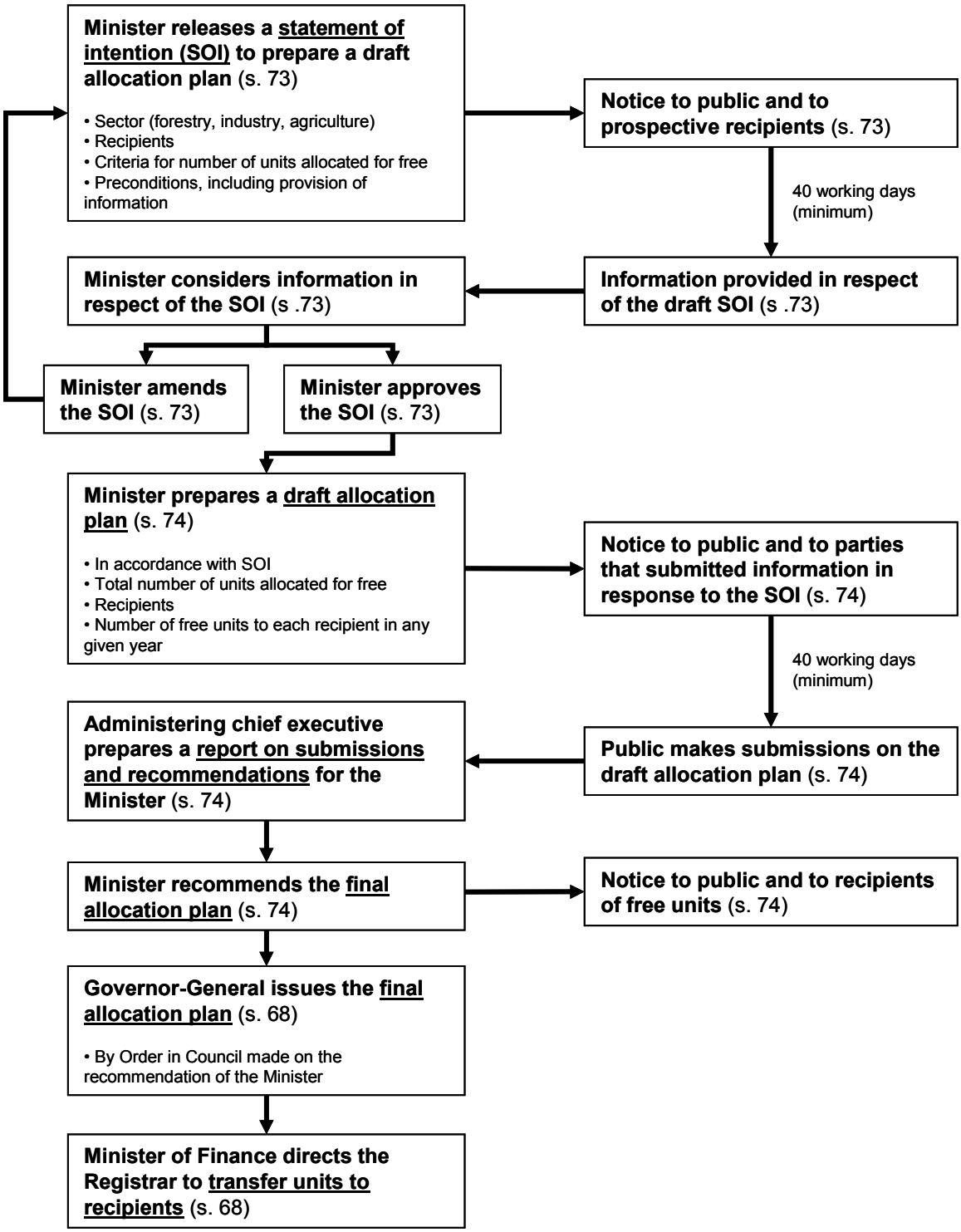
The primary responsibility for developing the allocation plan rests with a designated Minister. The key stages in the process are:

1. development of a statement of intention to develop a draft allocation plan
2. preparation of a draft allocation plan
3. recommendation of a final allocation plan.

The Governor General, by Order in Council made on the recommendation of the Minister, then issues an allocation plan. Following the publication of this allocation plan, the Minister of Finance issues a direction to the Registrar to transfer units to the recipients in accordance with the plan.

The public has opportunities to participate in the development of allocation plans. Information from prospective recipients of free allocation will be requested and considered prior to confirming the final statement of intention. This information will be used to determine prospective recipients' eligibility to receive free units and how many units they will receive, which will then be set out in the draft allocation plan. Prospective recipients and the wider public will be invited to make submissions on the draft allocation plan. Matters raised in these submissions will be compiled into a report by a designated chief executive, who will then prepare recommendations for the designated Minister. This process is illustrated in Figure 1.

Figure 1: Proposed process for allocation plans



6 Clarification of the Government's Proposal for Participants in Non-Forestry Sectors

6.1 Energy and industrial process sectors

In the framework document, the government expressed a preference for placing the obligation to surrender units on participants as far upstream as possible in the supply chain, enabling a price signal to flow downstream to intermediate emitters and consumers. This approach would help to reduce the administrative complexity of the scheme by involving fewer participants, and would ensure breadth of coverage of emissions across the economy.

In the liquid fossil fuel and stationary energy sectors, the proposal was to place the obligation at the point of fuel supply into the market (ie, the point of production or import). In the industrial process sector, the proposal was to place the obligation at the point of emission (ie, the industrial producer). However, the government also recognised that some major fuel purchasers may wish to assume direct obligations under the NZ ETS. Therefore, the government proposed that large downstream users of jet fuel, coal, and natural gas could choose to opt into the scheme as points of obligation. Such a practice would require an upstream "carve-out" mechanism to avoid double-counting of emissions at upstream and downstream levels.

During engagement, stakeholders generally accepted the rationale proposed by the government for placing the obligation upstream where possible. Some prospective NZ ETS participants raised questions about setting appropriate *de minimus* emission levels for assuming obligations.

While some participants welcomed the proposed opt-in mechanism for major fuel purchasers, others expressed concern about how it would be implemented. Among the firms that were interested in this kind of mechanism, some were a point of obligation for non-energy industrial process emissions in the NZ ETS or carried obligations under the EU ETS and wanted to be able to coordinate the management of their emissions liabilities. Some firms suggested that they might have more control over emission costs if they were a direct point of obligation instead of the subject of an upstream price signal from fuel suppliers. However, some firms – both upstream and downstream – suggested that the operation of a downstream opt-in mechanism with an upstream carve-out could increase the administrative complexity of the scheme considerably. For example, it could create contracting and pricing uncertainty for fuel suppliers as major users opted into and out of the NZ ETS over time. Both firms and officials discussed whether suppliers and major fuel purchasers might be able to use contractual arrangements outside the NZ ETS, instead of an opt-in mechanism under the NZ ETS, to manage price pass-through issues.

The Bill largely reflects the government's original proposal for defining points of obligation. Schedule 3 defines the activities that automatically give rise to participant obligations under the NZ ETS, and Schedule 4 defines activities for which persons can elect to become participants with obligations under the NZ ETS. Under Schedule 3, obligations apply to liquid fossil fuels removed from a refinery, mined/imported coal, and natural gas as follows:

- *Liquid fossil fuels:* If the total amount of obligation fuel removed for home consumption and/or otherwise removed from a refinery (other than for export) exceeds 50,000 litres in a calendar year
- *Coal:* If the volume of coal mined (other than for export) exceeds 2,000 tonnes in a calendar year, and to any volume of imported coal
- *Natural gas:* If the volume of imported natural gas exceeds 10,000 litres in a calendar year, and to any volume of mined natural gas.

In response to issues raised during engagement, the government has developed the following process for implementing the opt-in (and opt-out) provision for major purchasers of certain fuels:

1. Purchasers of jet fuel, coal and natural gas above a fuel-specific threshold can apply to the designated chief executive to be registered as a participant with obligations under Schedule 4.
2. The chief executive will then notify the participants that would otherwise hold the obligation for those fuels under Schedule 3.
3. The registration will take effect one year from the date of notice to the applicant that the registration has occurred.
4. The Schedule 3 participants will then be exempted from reporting and surrender obligations with regard to fuels sold to the participants registered under Schedule 4.
5. If the chief executive receives an application for deregistration from a person registered as a Schedule 4 participant, the chief executive will notify the participants that would hold the obligation for those fuels under Schedule 3.
6. Deregistration will take effect four years after the date of the application, at which point the obligations will revert to the appropriate participants under Schedule 3.

This process is designed to ensure that major fuel purchasers do not opt into and out of the NZ ETS on a frequent basis, and that fuel suppliers have sufficient notice to change their contractual arrangements as needed.

6.2 Agriculture sector

In the agriculture sector, the government's proposal in the framework document was to place the point of obligation as follows:

- *Methane and nitrous oxide emissions from livestock*: at the level of the meat/dairy processor.
- *Nitrous oxide from fertiliser use*: at the level of the fertiliser processor or importer.

The government's proposal to place obligations on companies/processors was intended to minimise the administrative complexity of bringing the agriculture sector into the NZ ETS. However, to date, many stakeholders have expressed a preference for placing the obligation at the farmer level. The government expressed its intention to engage further with the sector about other options, including placing the obligations at the level of farmers or sectoral bodies.

The placement of obligations in the agriculture sector, including appropriate thresholds for participating in the scheme, was not a major focus of discussion during recent stakeholder engagement because the agriculture sector will not enter into the NZ ETS until 1 January 2013 and the ultimate decision will be made after the Bill has been passed.

The Bill has been drafted to reflect the government's initial proposal as the default position, but allows modification through an Order in Council prior to the sector's entry into the NZ ETS. Part 5 of Schedule 3, which addresses the obligations placed on activities in the agriculture sector, is divided into subparts as follows:

- *Fertiliser:* Under Subpart 1, an obligation is placed on importing or manufacturing synthetic fertilisers containing nitrogen from 1 January 2013 unless Subpart 2 is brought into force before that date (but applying from 1 January 2013). Under Subpart 2, which would enter into force following an Order in Council, an obligation is placed on purchasers (other than for on-selling) of synthetic fertiliser containing nitrogen.
- *Animals:* Under Subpart 3, an obligation is placed on slaughtering ruminant animals, pigs, horses, or poultry as well as dairy processing of milk or colostrums from 1 January 2013 unless Subpart 4 is brought into force before that date (but applying from 1 January 2013). Under Subpart 4, which would enter into force following an Order in Council, an obligation is placed on farming, raising, growing or keeping ruminant animals, pigs, horses, or poultry for reward or trade.

In a similar vein, the government's proposal for free allocation to the agriculture sector enables such allocation to be issued to the participants carrying out activities in Schedule 3, or to agricultural producers who face increased costs as a result of the obligations imposed by the NZ ETS on participants in Schedule 3. This will enable the allocation provisions to be adapted appropriately to reflect the government's final decision on the point of obligation.

The Bill also contains provisions to exempt persons or activities in the agriculture sector from assuming NZ ETS obligations where certain criteria are met.

The government maintains its intention to engage with the sector to determine the most appropriate point in the supply chain for placing the obligation to surrender units, to identify reasonable and appropriate thresholds for participating in the scheme, and to determine the appropriate parties to receive free allocation.

7 Rate of Introduction of the NZ ETS

Some stakeholders have argued that New Zealand is moving too quickly in introducing an ETS at this stage (although others have argued that more rapid progress would be appropriate). Although this paper largely describes policy and legislative issues, the government does wish to comment on the arguments around rate of introduction of the NZ ETS.

There are two main facets to the criticism around the rate of introduction of the NZ ETS. The first relates to the rate of legislative introduction and passage, while the second relates to whether New Zealand should be introducing an ETS at all at this point.

With regard to the rate of legislative passage, the government believes that there is sufficient time to support the passage of effective legislation. The quality of the feedback received from stakeholders and Māori demonstrates a very good understanding of the issues. New Zealand has been considering the introduction of a price on greenhouse gas emissions for a very long period, so we are not starting from scratch. Furthermore, the NZ ETS will be introduced through a staged approach that enables more detailed design features for later entrants into the scheme to be confirmed in regulation after further engagement.

Noting this, the ongoing engagement will be critical (see section 8 of this document for more detail). The input from the Climate Change Leadership Forum and Technical Advisory Groups, the select committee process, and other engagement opportunities are critical in ensuring effective legislation. The processes being set up for 2008, especially around industry and agriculture, are designed to ensure that the very important and complex issues implicit are resolved as effectively and expeditiously as possible. Further to this, the legislation also includes statutory processes around consultation on the development of allocation plans.

The inclusion in legislation of regular reviews of the NZ ETS demonstrates a commitment to learn from experience and adapt policy settings where appropriate. Close collaboration with international peers, through both formal and informal channels, has been pivotal in the development of policy to date and will remain critical in ensuring that the design of the NZ ETS is as effective as possible.[32]

With regard to the second issue – whether to introduce an ETS at all at this stage – the government notes that New Zealand is not moving ahead of the rest of the world, as some commentators have suggested. Many other jurisdictions already have emissions trading schemes or are in the process of developing them. Although the agricultural and forestry aspects of the NZ ETS design are world leading (by necessity given the nature of New Zealand's emissions profile), the overall design of the NZ ETS reflects best practice in emissions trading design and practical lessons learned from other jurisdictions.

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[32] New Zealand is a founding member of the International Climate Action Partnership – an initiative that brings together ETS experts from US states as well as different nations to share experiences on ETS-related matters. New Zealand also engages bilaterally on aspects of climate change policy, including with Australia and the UK.

There may well be adjustment costs for New Zealand involved in moving to a lower-carbon economy, and these have social and regional aspects as well as economic. Delaying the introduction of effective price-based climate change measures will not remove the need for New Zealand to make an adjustment, however. Starting from 1 January 2008, New Zealand will incur liabilities for net emissions above 1990 levels, and at a global level emission liabilities are expected to increase significantly in the future. As a result, a delay in introduction of effective climate change policies will most likely exacerbate the scale of the adjustment that New Zealand has to make in the future.

The NZ ETS is designed with a long-term focus in mind and a number of facets of design, such as the phased introduction of sectors and the generous initial free allocation, are designed to ensure that the adjustment to a lower-carbon economy is a gradual but effective one. The real debate for New Zealand is whether the NZ ETS as currently designed maximises the possible opportunities and minimises the risks implicit, rather than whether we should be introducing an ETS at this stage.

8 The Process Going Forward

As noted previously in this document, the engagement process on the NZ ETS is by no means complete. Government does not have all of the answers, and ongoing input from stakeholders is critical to ensuring that New Zealand manages the economic, social and environmental challenges posed by climate change as well as possible.

After its introduction, the Bill is likely to be referred to a select committee, at which point there will be further scope for refinement, improvement, and changes. This is a key part of the legislative process. The select committee will call for written and oral submissions and consider whether amendments are required.

The engagement process will not end with the passage of the NZ ETS legislation. The government will continue to work with business and other stakeholders on the detail. The Climate Change Leadership Forum will continue to meet until at least mid-2008 to assist the government on climate change policy and the NZ ETS.

The government is establishing two Technical Advisory Groups – one on stationary energy and industrial processes and one on agriculture – to work through the fine details of implementation for those sectors. Terms of reference for the Technical Advisory Groups are currently being developed, in consultation with stakeholders. Stakeholders will be asked to submit candidates for these groups.

The Ministry of Agriculture and Forestry has established a Peak Group on Agriculture and the ETS, including key representatives from Māori, the forestry and agriculture sectors, and local government. Its members will set the strategic direction on the development and implementation of the Sustainable Land Management and Climate Change Plan of Action and provide advice on the implementation of the forestry and agriculture components of the NZ ETS.

In the longer term, the government will continue to engage with the broader community on the future evolution of the NZ ETS and New Zealand's position on the international post-2012 climate change regime. The Bill provides a process for review of the NZ ETS prior to the end of the first commitment period and each subsequent commitment period.

9 Summary

Ministers and officials have undertaken an intensive engagement process since the release of the framework document on NZ ETS design. The feedback received from stakeholders and Māori has been both welcomed and appreciated.

As a result of this feedback, the government has modified several areas of its initial proposal for the NZ ETS, and these changes are reflected in the Bill. The government has identified areas for further engagement prior to making final decisions, including the treatment of pre-1990 forests, the phase-out of free allocation, and the eligibility of assigned amount units in the NZ ETS. Finally, the government has implemented a number of processes to ensure ongoing engagement with stakeholders and Māori in designing the future regulations needed to implement the NZ ETS. Further work in all of these areas is already underway. This engagement approach will be critical to ensuring that the final NZ ETS legislation, and the implementation of that legislation, are as effective as possible in supporting New Zealand's national interest.

Annex: Comment on Specific Stakeholder Suggestions for Pre-1990 Forests

There are two specific suggestions that have been made in relation to the treatment of pre-1990 forests that have been rejected by government. These are briefly discussed below.

Exemption of pre-1990 forest from the NZ ETS

Any decision to exempt pre-1990 forest from the NZ ETS altogether would be very costly for the government (and the New Zealand economy). It would remove the incentive on participants to reduce their levels of deforestation. There are approximately 1.2 million hectares of pre-1990 forest in New Zealand. If 200,000 ha (17 per cent) of that total estate were deforested, the cost to the Crown would be in the order of $2.4 to $4 billion (assuming emission prices of $15 and $25/t CO_2-e respectively).

This option would also increase the broader economic costs facing New Zealand in meeting its Kyoto obligations, as the reduction of deforestation is considered to be one of the lower-cost options available for reducing emissions in the short term.

Full carbon stock accounting for pre-1990 forests

New Zealand no longer has the option to fully account for net carbon stock changes in its pre-1990 forests under the Kyoto Protocol for the first commitment period. However it could, in principle, still require that under the NZ ETS. This approach would see pre-1990 forest and post-1989 forest treated in the same way (with the key exception of the "fast forest fix" rule, discussed below). If introduced, it would need to be compulsory for all owners, in order to avoid only those with increasing carbon stocks from joining.

This option offers some benefits. Most importantly, it would allow pre-1990 forest owners to earn credits (funded from taxpayers) from changes to their management techniques that increased the levels of carbon in their forests, such as by increasing rotation lengths.

However, this option has very significant disadvantages which the government considers clearly outweigh its benefits. Most importantly, the requirement to surrender emission units whenever harvesting occurs would be likely to undermine the commercial viability of a number of forestry operations. Under this option, the regular harvesting of forests would create a significant liability, even where they were immediately replanted. However, in contrast to post-1989 forests, it may not be possible for the government to limit the liabilities incurred on harvesting

to the level previously earned through sequestration (sometimes referred to as the "fast forest fix"), as the cost of doing so could be unsustainably high.[33]

This option would therefore disrupt the ongoing commercial operations of many forest owners, leading to their being forced to leave their trees *in situ* in perpetuity, or to manage the forests on a rolling, selective harvesting basis. This option would therefore lead to the owners of pre-1990 forests being locked into a lower-value commercial use.

More generally, scientific analysis indicates that the carbon stocks in New Zealand's pre-1990 forest estate are declining through time until about 2020, further reducing the desirability of this option from an economy-wide perspective. The option would also create considerable operational and fiscal difficulties for the Crown, as there would be a high risk of relatively significant mismatches in the flows of credits and liabilities provided for pre-1990 forests under the NZ ETS, and New Zealand's obligations under the Kyoto Protocol.

[33] The pre-1990 forest estate is older on average than the post-1989 estate, so has less ability to sequester carbon after 2008, and New Zealand's overall liabilities under the Kyoto Protocol would not be limited commensurately.