



Ministry for the
Environment
Manatū Mō Te Taiao

Measures to Reduce Greenhouse Gas Emissions in New Zealand Post-2012

Summary of Submissions

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1 Introduction

Overview

This report summarises submissions to the New Zealand government on the discussion paper *Measures to Reduce Greenhouse Gas Emissions in New Zealand Post-2012* (hereafter referred to as *Post-2012 Measures*). The report begins with background information on how the post-2012 discussion document was developed, the subsequent consultation process and how submissions were received and analysed, and a sectoral breakdown of submitters.

Section 2 then summarises the comments from submitters on eight principal themes:

- general views on proposed climate change policy
- price-based measures
- emissions trading
- greenhouse gas charges
- international competitiveness
- directive regulation
- voluntary agreements
- over-arching comments.

Several submitters made comments that were not covered by questions in the *Post-2012 Measures* discussion document, but which are relevant to climate change policy development. These comments have been summarised in section 3, and relate to the following topics:

- comments specific to Māori submissions
- comments from the Greenpeace Aotearoa New Zealand form submissions
- union/worker initiatives
- research and development initiatives
- impacts on public health
- local government initiatives
- incentives for small-scale renewable energy
- additional general rates levy
- Kyoto Protocol methodologies
- targets for reducing emissions
- New Zealand's emissions profile
- criticism of the consultation documents
- further consultation and communication.

Background

In August 2006 Cabinet approved a series of whole-of-government climate change policy work programmes. These work programmes were designed to enable New Zealand to manage climate change as a long-term issue, to play its part in reducing emissions, and to encourage other countries – especially the major emitters – to reduce their emissions.

The work programmes culminated in the following five discussion documents being produced for consultation in December 2006:

- *Discussion Paper on Measures to Reduce Greenhouse Gas Emissions in New Zealand Post-2012* (Post-2012 Measures)
- *Powering Our Future: Draft New Zealand Energy Strategy to 2050* (draft NZES)
- *Draft New Zealand Energy Efficiency and Conservation Strategy* (draft NZEECS)
- *Transitional Measures for Electricity and Stationary Energy Supply* (Transitional Measures)
- *Sustainable Land Management and Climate Change: Options for a Plan of Action.*

The purpose of the Post-2012 Measures discussion paper was to start a dialogue on what long-term policy measures would be preferred in New Zealand after the first commitment period of the Kyoto Protocol (2012) to reduce emissions, and protect and enhance sinks, across key sectors of the economy. All five of the discussion documents are available online at the following web address: <http://www.mfe.govt.nz/issues/climate/consultation/index.html>

Public consultation and consultation with Māori as Treaty partners took place between December 2006 and March 2007. The consultation process included approximately 50 public or multi-sector meetings, workshops and hui, and approximately 100 focused stakeholder meetings. These events took place throughout the country, with over 4,000 people attending. The public were given until 30 March 2007 to make written submissions on the five discussion documents, and 1,776 submissions were received on the *Post-2012 Measures* document.

This summary report is the results of a detailed analysis of submissions on the *Post-2012 Measures* discussion document. The review is primarily based on submitted responses to the questions (from 1 to 26) in the *Post-2012 Measures* document, although the questions from the discussion document have been reordered in this report to enable the comments to be grouped into eight principal themes.

Where possible we have attempted to provide statistics for the responses to the 26 questions. However, 76% of the submissions did not give specific answers to the questions set out in the *Post-2012 Measures* discussion document, so some interpretation was required when analysing the responses to the questions. Also, a submitter's support of a certain measure was generally provisional on a number of additional conditions being met, so it was often difficult to tell whether a submission supported or rejected a specific policy measure. This is partly a result of the broad nature of the discussion document, which proposed several policy options for consultation but did not set down any firm policy preferences.

We have used consistent qualitative statements to indicate the level of support for given policy measures. The qualifiers we have used, in order of weighting, are as follows: one, few, some, several, relative majority, majority and vast majority. A relative majority is defined as the largest share of something, which may not be considered a majority; ie, it is the largest group/category, but is not necessarily a majority (ie, more than 50%).

Submitters

The table below shows the number of submitters from various sectors or interest groups. A full listing of submitters can be found at:

<http://www.mfe.govt.nz/issues/climate/consultation/submissions-post-2012.html>

Sector/interest group	Number of submissions
Academic and research	6
Business and industry:	
• agriculture/dairy	5
• energy	15
• forestry	6
• other	17
Government, local government and political parties	18
Consulting and professional	8
Māori (iwi or hapū)	10
NGOs:	
• business (includes chambers of commerce, professional and business associations)	22
• environmental	17
• community	5
Individuals	1,647 ¹
Total number of submissions	1,776
Total number of submissions excluding Greenpeace form submissions	169

The ‘individuals’ group was used for general members of the public. This group included 1,607 form submissions based on a template prepared by Greenpeace Aotearoa New Zealand. The individuals who submitted Greenpeace form submissions may not necessarily be Greenpeace members because the forms were distributed at several public functions. Some submitters made slight alterations to the form submission, not to alter the main points but to place greater emphasis on particular statements or to add further comments. Due to the large number of Greenpeace form submissions and consistent messaging, the comments and statistics on specific questions from the form submissions have been treated separately from other submissions throughout this report. A summary of the key points from the Greenpeace form submissions has also been provided in section 3.

¹ This includes 1,607 form submissions based on a template prepared by Greenpeace Aotearoa New Zealand that has comments covering all the discussion documents.

2 Analysis of Responses to Consultation Questions

General views on proposed climate change policy

Q26 What are your views on the indicative proposal for discussion?

It was often difficult to determine a submitter's overall views on the indicative proposal for discussion, so we have attempted to narrow the scope to consider whether a submitter generally supported or generally rejected the indicative proposal presented in the *Post-2012 Measures* document.

The vast majority of submitters acknowledged the need for climate change policies, but the desired conditions, stringency, coverage and timing of these policies varied greatly. We have interpreted a general stance on the indicative proposal for discussion for 41 of the 169 submissions. Of these:

- 24% generally rejected the indicative proposal for discussion in the *Post-2012 Measures* discussion document.
- 76% generally supported the indicative proposal for discussion in the *Post-2012 Measures* discussion document.

However, very few gave unconditional support. Most submitters partially supported the proposals or supported the proposals with several conditions. The details of these conditions are summarised in other sections of this report.

Of those submissions that generally rejected the proposals, the relative majority (40%) were contributed by individuals. There were no consistently recurring comments within this group. Submitters from all groups variously criticised the indicative proposal as being: inequitable, over-complicated, inconsistent, insufficiently comprehensive and ineffective. Comments relating to this question have also been recorded in greater detail in other sections of this report.

Q1a Do you expect international efforts to reduce greenhouse gas emissions to continue?

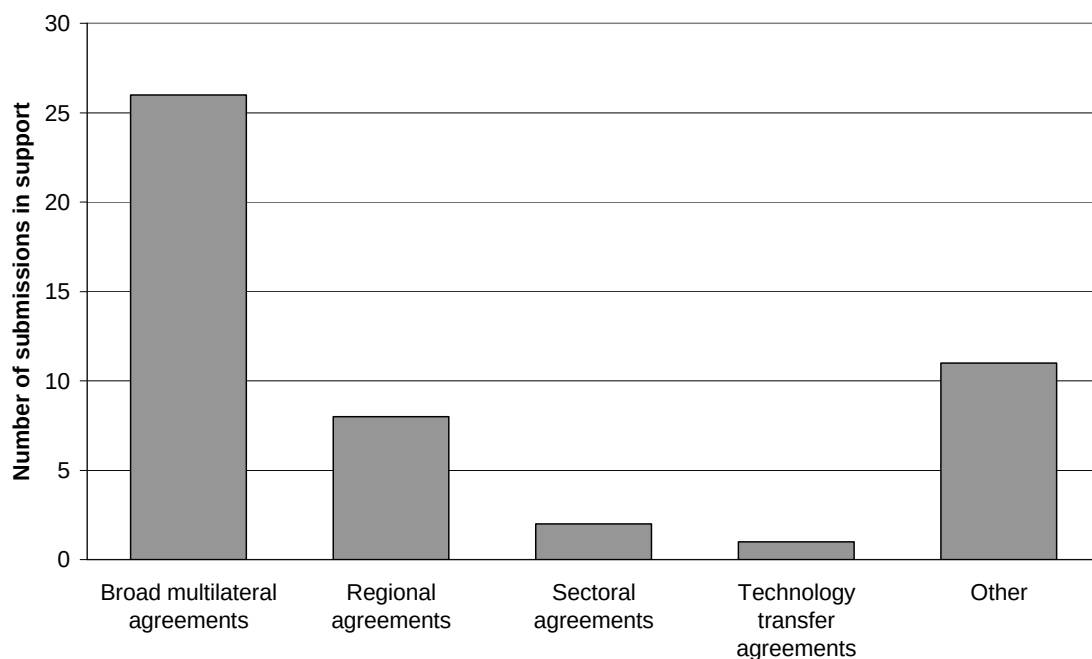
Q1b If so, in what form?

The vast majority of submitters who expressed a view on this question indicated that they expected international efforts to reduce greenhouse gas emissions to continue. However, most submitters presented their *preferred outcome* instead of commenting on their *expectations* of international efforts to reduce greenhouse gas emissions. These two kinds of submissions were treated identically in the analysis because many submitters did not specify whether they were presenting their expectation or their preferred outcome. Consequently, we were able to determine a response to the second part of this question (Q1b) for 42 of the 169 submissions. The responses can be grouped into the following categories:

- broad multilateral agreements
- regional agreements
- sectoral agreements
- technology transfer agreements
- other.

(Note that it was possible for a submission to support more than one of these options.) Figure 1 shows the numbers of submissions that supported each option.

Figure 1: Submitted responses to the question, “What form will international efforts to reduce greenhouse gas emissions take?”



The majority of submitters preferred or expected that international efforts to reduce greenhouse gas emissions would result in broad multilateral agreements with targets. However, several of these submitters suggested that progress in international efforts to reduce greenhouse gas emissions may be slow. A few submitters thought there may be a gap between Commitment Period One of the Kyoto Protocol, which ends in 2012, and any later international climate change agreement. Several of these submissions emphasised the importance of developing countries and major emitters, such as the USA, being involved in future agreements.

A few submitters who supported broad multilateral agreements with targets also suggested that regional, sectoral or technology transfer agreements may be adopted. The concept of a technology transfer agreement for the coal sector was supported by one business NGO, who cited the Australian COAL21 Plan as a good example of a global government-industry partnership to encourage the transition to low emissions technologies. The initiative brings together state and central governments, industry, unions and the research community, and has been a successful vehicle for galvanising funding and for influencing policy settings. The submitter contended that this sort of agreement has a key role to play in accelerating the development and deployment of low emission technologies.

Submissions that fell into the ‘other’ category were generally less specific about their expected or preferred form of international efforts to reduce greenhouse gas emissions. Two from individuals in this category suggested that efforts should focus on ground-level action.

Price-based measures

Q2 Do you believe a price-based measure such as emissions trading, which gives emitters the responsibility for at least some of their emissions, could enable businesses to find the lowest-cost way to reduce emissions?

For the purpose of analysis this question was expanded to incorporate all submissions that expressed general support or opposition to a price-based measure (PBM). This was because many submitters expressed their support or opposition to PBMs without stating whether this was because they believed that a PBM would or would not offer least-cost reductions.

Eighty-five of the 169 submissions had a clear stance on the use of price-based measures:

- 12% generally rejected the use of a price-based measure
- 88% generally supported the use of a price-based measure.

Submitters who rejected the use of PBMs were spread across all the sectors and groups. Some individuals and community NGOs rejected PBMs because they considered they would provide a way for polluters to pay for greenhouse gas emissions without necessarily reducing their greenhouse gas emissions. Many submissions from businesses and business NGOs were unwilling to support a price-based measure until a full cost-benefit analysis had been completed on the likely options. Several of these submissions, and other submissions from environmental NGOs and individuals, stressed that a cost-benefit analysis should also include environmental, health, tourism and other long-term co-benefits or costs.

A submission from one industry member suggested that the rising cost of energy has already provided sufficient incentive to improve energy efficiency in industry. Therefore, this submission contended, a further rise in energy costs (from the introduction of a price-based measure) would not lead to further improvements in energy efficiency, but instead would lead to costs being passed on to consumers, or production moving offshore.

Submitters who supported the use of PBMs were also spread across all sectors and groups. Many submissions from business and industry groups, government, and business NGOs gave qualified support for a PBM depending on the fulfilment of certain conditions. These conditions are summarised later in this report (see Q4).

Q24 Would a price-based measure be sufficient to achieve the following types of climate change-related objectives: accelerated uptake of highly efficient technologies, development and commercialisation of new technologies, fuel switching to low-emission or renewable energy sources, and reduced energy demand?

Twenty-nine of the 169 submissions responded to this question. The majority of these submissions suggested that a PBM would need to be complemented with additional measures to achieve significant emissions reductions. Several submitters from business NGOs, industry and environmental NGOs suggested that incentives could be used as an additional measure. Some of these submitters pointed out that the Projects to Reduce Emissions (PRE) programme has already been effective in reducing emissions below the business-as-usual scenario. Some suggested that such projects could be used as a flexibility mechanism within the framework of a price-based measure.

Several submissions from environmental NGOs emphasised the need for PBMs to be supplemented with comprehensive public education campaigns to win public support, and to ensure that emissions reductions occur in homes and in the transport sector. Many individual submitters wanted incentives for the general public to reduce their emissions, through funding for solar water heating, and home insulation. Similarly, many submitters from across the board supported increased funding for public transport (as a complementary measure) – this was especially encouraged by environmental and community NGOs and individuals.

Several submissions suggested that PBMs should be complemented with increased public funding for research and development in agricultural emissions abatement technology. One submission also suggested that more research and development funding should be directed at carbon capture and storage, and clean-burning technology for plants using fossil fuels.

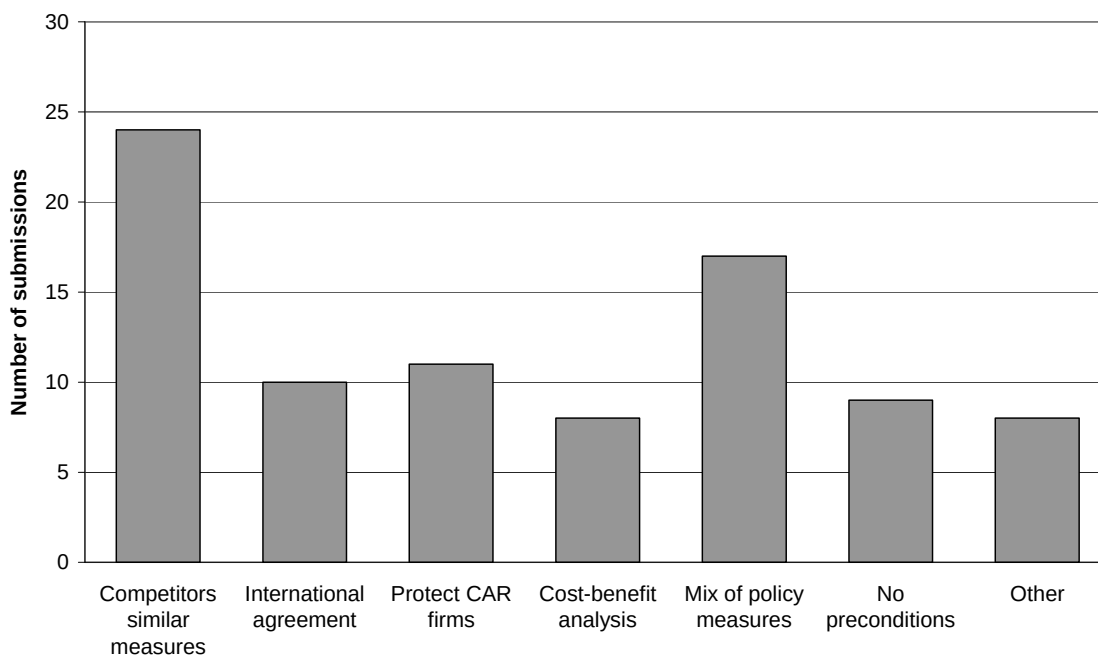
Q4 What, if any, pre-conditions need to be met internationally and/or domestically before a broad price-based measure such as a greenhouse gas charge or emissions trading was introduced in New Zealand?

Fifty of the 169 submissions responded to this question. These responses were grouped into the following categories:

- major trading competitors having similar measures
- a broad-based international agreement in place
- measures in place to protect firms subject to international competition from countries with less stringent climate change policies (competitiveness-at-risk firms)
- provision of a cost-benefit analysis of the proposed measure
- a mix of policy measures
- no pre-conditions
- other.

Many submissions proposed more than one necessary design condition for PBMs. Figure 2 shows the number of submissions that proposed each of the design conditions.

Figure 2: Submitted pre-conditions for a price-based measure



The majority of submissions that supported price-based measures with no (stated) pre-conditions were from individuals, and environmental or community NGOs. The 1,607 Greenpeace form submissions also supported this approach. This would make ‘no pre-conditions’ the overwhelming majority. Several of these submissions emphasised the marketing advantage in acting ‘slightly’ ahead of our competitors. In particular, these submissions mentioned the product-mile debate,² and the ‘Brand NZ’ benefits associated with developing sustainable tourism and agriculture.

Many submissions from business and industry groups, and business NGOs, did not want a PBM to be implemented ahead of similar measures being employed by New Zealand’s major trade competitors. If this condition was not met, these submissions stressed, the competitiveness-at-risk³ (CAR) concerns must be addressed. Many of these submissions emphasised the fact that New Zealand is a relatively small player in the international scene and suggested that New Zealand should not try to influence the world by ‘moving ahead of the pack’.

Many submissions from business and industry groups, government and business NGOs stressed that a full cost-benefit analysis must be completed before any price-based measure is implemented. Some considered that the government’s assertion that the proposed measures would have “moderate economic costs” was alarming without a full cost-benefit analysis.

Some submissions suggested that a PBM would need to be compatible with and linked to an international scheme (like the European Union Emissions Trading Scheme).

Some submissions from business and industry groups, government, and business NGOs stressed that there would need to be a considerable lead-in time to a PBM so that companies could establish expertise in measuring, benchmarking and reporting their greenhouse gas emissions. Similarly, several submissions from government and individuals suggested that an independent audit and compliance regime for emissions measurement, monitoring and reporting would also be essential. One of the government submissions suggested that this could be achieved by establishing a Climate Change Commission with powers of oversight and independent advice to government.

One submission from the agricultural sector expressed concern that many entities do not have the flexibility (due to long-term contractual obligations) to change their (land-use) practices. Thus, this submission asserted, any PBM must have some flexibility for these types of groups.

² The term ‘product miles’ refers to the distance travelled by a product before it reaches its final market. The main argument is that the further the product travels to market, the more fossil fuels are burned, leading to increased greenhouse gas emissions associated with that product. However, many groups are now moving to a wider ‘Life Cycle Analysis’ approach. Under this approach, the greenhouse gases emitted throughout the whole life cycle of a given product, and not just transport emissions, are measured. This approach recognises that a product that is sustainably produced, may travel further to market but still lead to fewer greenhouse gas emissions than an unsustainably produced product that travelled a shorter distance.

³ In the context of climate change policy, the term ‘competitiveness-at-risk’ applies to energy- or emissions-intensive firms that are exposed to international competition from countries with less stringent climate change policies. These firms may not be able to pass on emissions-related price increases to their customers. As a result, they may lose market share to international competitors.

One submission from a business NGO stated that support for a price-based measure depends on the extent of worker and union involvement, and also the extent to which ‘just transition’ measures are incorporated into programmes to ensure that workers are not disadvantaged in terms of employment effects or other costs. The proposed measures include income protection, redundancy procedures, re-employment, education, and re-training for emerging sustainable and environmentally friendly industries.

Other preconditions for a price-based measure were related to revenue recycling, coverage and scope, and are summarised later in this report in Q6a (see next) and Q12.

Q6a In the longer term, should the same price of emissions apply across all sectors of the economy?

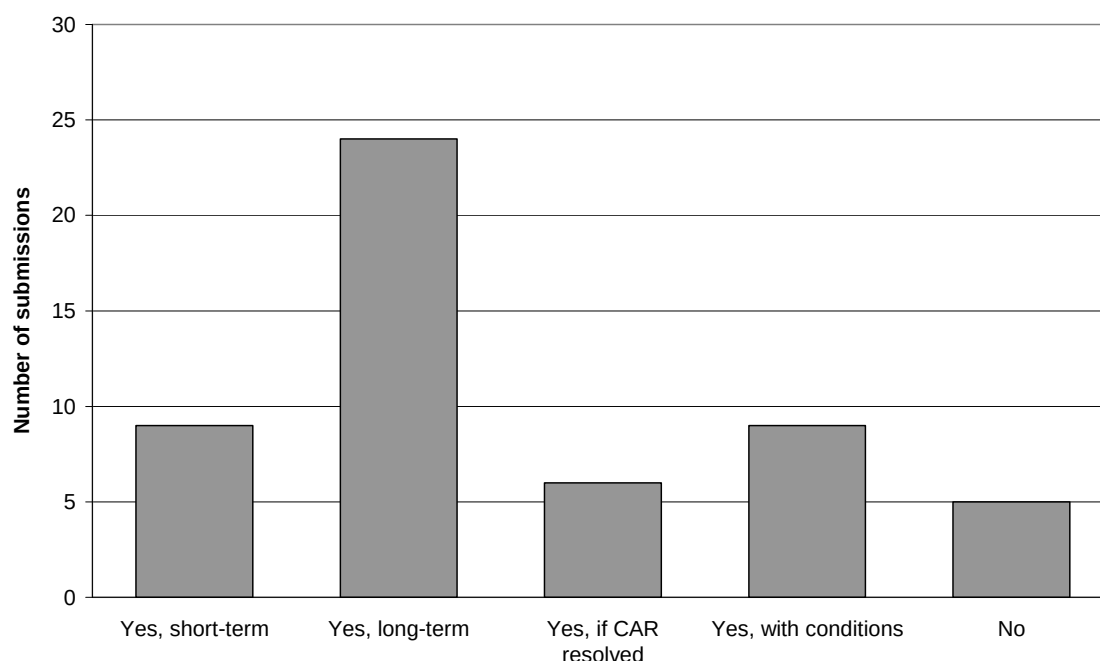
Q6b If not, how could the stringency of emissions targets be determined for different sectors?

The responses to question Q6a were grouped into the following categories:

- yes, short-term
- yes, long-term
- yes, but not until CAR issues are eliminated
- yes, but with other conditions
- no.

(Note that it was possible for one submission to fall into more than one of these groups.) Figure 3 graphs the submitted responses to this question.

Figure 3: Submitted responses to the question, “In the long term, should the same price of emissions apply across all sectors of the economy?”



The relative majority of submissions from across the board wanted the same price of emissions to apply across all sectors of the economy in the long term. These submissions pointed out that a price-based measure (such as emissions trading) would be most efficient and equitable if all sectors were included in the long term. However, several of these submissions called for an adjustment time to accommodate sectors or businesses that had no options to reduce their emissions in the short term without reducing production. The aviation and agricultural sectors and companies exposed to international competition were suggested as candidates for exemption from price-based measures in the short term. Many submitters proposed alternative measures for these sectors in the short term, which will be elaborated later in this report (see ‘Voluntary agreements’ below).

Two submissions from the waste sector commented that this sector should not be included in a PBM. These submitters suggested that the waste sector would be ‘hit twice’ if they were subject to a price-based measure, because the waste levy which will be introduced under the Waste Minimisation (Solids) Bill already aims to reduce greenhouse gas emissions from landfills by increasing the cost of disposing of waste in landfills.

Submissions that supported the same price of emissions across the economy in the short term were primarily from environmental NGOs and individuals. The 1,607 Greenpeace form submissions also supported this approach. When the Greenpeace form submissions are included, this approach is supported by the vast majority of submitters. Some of the submissions that supported the same price of emissions across the economy in the short term were not concerned about the competitiveness impacts on some sectors. Some suggested that it would be to the national benefit if these sectors were phased out over time and replaced with more environmentally friendly industries.

Q10 How should the government define and enforce a threshold determining which firms or sites should be included in the scheme? For example, should a threshold be defined on an intensity or absolute basis?

Twenty of the 169 submissions addressed this question. In general the question was not answered directly, and many of the recorded responses were inferred from indirect statements about the coverage of a PBM.

The relative majority of the submissions that responded to this question (eight submissions) thought that a threshold was not necessary and that the obligations of a price-based measure should be shared by all firms within a sector. These submissions were primarily contributed by environmental and business NGOs.

Five submissions from individuals and the energy sector supported an absolute-based threshold, while three supported an intensity-based threshold. One of these latter submissions was contributed by an industry member, who suggested that an absolute-based threshold may lead to economic stagnation or collapse. One submission from an individual proposed that a hybrid (absolute- and intensity-based) threshold should be developed.

Two submissions considered that the threshold should be determined by the ratio of administration costs to emissions reductions.

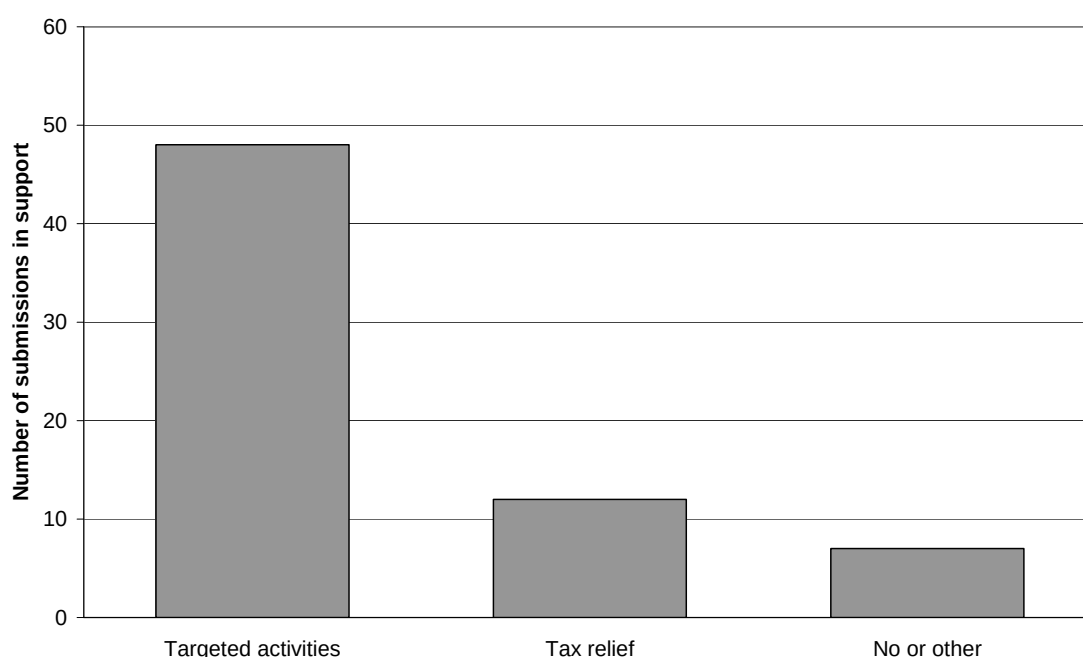
Q12 Should revenues from climate change policy measures be returned to the economy through either general tax relief or funding for targeted activities? If you believe revenues should be returned to the economy through funding for targeted activities, which activities should be considered?

Fifty-five of the 169 submissions had a clear stance on revenue recycling. The responses can be grouped into the following categories:

- supported funding of targeted activities
- supported general tax relief
- supported other options or did not support revenue recycling.

(Note that it was possible for a submission to support more than one of these measures.)
Figure 4 shows the range of responses to this question.

Figure 4: Submitted responses to the question, “Should revenues from climate change policy measures be returned to the economy through either general tax relief or funding for targeted activities?”



As can be seen, the majority of submitters wanted climate change revenue to be recycled into targeted activities. These submissions were contributed primarily by individuals (16 submissions), business NGOs (seven), and government organisations (five).

Submissions supporting targeted activities for revenue recycling supported the following kinds of activities:

- incentives or subsidies for emissions reductions
- project-based mechanisms
- relief for CAR firms
- other.

Many submissions identified areas for revenue recycling but did not specify whether the funding should be achieved through incentives/subsidies or project-based mechanisms. However, the relative majority of the submissions that supported targeted activities for revenue recycling appeared to support incentives or subsidies to be used as the targeted measure. The following areas were commonly identified as being priorities for incentives/subsidies and project-based mechanisms:

- development, demonstration and deployment of low-emission technology
- funding for monitoring emissions
- funding for energy efficiency programmes
- funding for renewable energy and micro-generation.

Several submissions wanted revenue recycling to focus on projects and initiatives that are not currently economically viable.

One submission warned that poorly based incentives could create unnecessary ‘protectionism’ and market distortions. A submission from a business NGO suggested that incentives should not ‘pick single technologies’ but should be flexible enough to accommodate new technologies as they emerge. A few submissions pointed out that any subsidies would need to comply with World Trade Organization (WTO) regulations.

Several submissions suggested that revenue should be used to look after vulnerable groups within society during the transition to a carbon-constrained economy. In particular, these submissions suggested that revenue should be used to assist workers to make the transition into environmentally sustainable jobs.

Many submissions wanted revenue to be used to fund research into options for reducing our emissions (particularly agriculture). One suggested that where research grants are funded by recycled revenues, the intellectual property that arises from such grants should remain with the recipient and not with the government. This submission argued that giving this intellectual property right will create further competitive tension for research grants and encourage co-funding of such research from the private sector.

Many submissions suggested that revenue could be recycled into climate change education campaigns. Many others wanted revenue to fund improvements in public transport.

Of those submissions that supported general tax relief, only two suggested this as the sole measure for recycling revenue. Most (10 of the 12 submissions) supported tax relief in conjunction with targeted activities to reduce emissions. These submitters noted that unless the revenue is recycled back into the economy through compensatory tax cuts, then as well as giving a price signal you also raise the tax burden. One submission suggested that tax cuts should be targeted at low-income earners.

One industry submission suggested that there is no basis for even considering revenue recycling because the liability of New Zealand under its Kyoto obligation far exceeds any conceivable revenue collection from policy outcomes. This submitter argued that the question of what to do with revenues is redundant and irrelevant until such time as policy encompasses *all* major sources of greenhouse gases in the New Zealand economy – including agriculture and transport. This submitter also suggested that there will be a need for some form of compensatory mechanism to industry (and other consumers) for the windfall gains that will accrue to the electricity generation sector from inclusion in any policy measure.

A few other submissions suggested that any revenue collected from climate change measures should be used to pay for New Zealand's Kyoto Protocol liability. A few submissions suggested that government policies should be revenue neutral.

Emissions trading

Of those submissions that specified a clear view on a New Zealand emissions trading scheme (New Zealand ETS), 79% (52 of 67 submissions) were in support. Several submissions presented detailed proposals for the design features of a New Zealand ETS. A selection of the key design features of these proposals is summarised in the appendix.

Q23 What national and/or international circumstances would favour emissions trading rather than greenhouse gas charges if applied broadly or more selectively across multiple sectors of the New Zealand economy post-2012?

This question was not explicitly answered by most submitters, with only 27 submissions directly or indirectly addressing the question. This was generally because a submitter's preference for emissions trading over a greenhouse gas charge was not conditional on national or international circumstances, but on inherent (perceived) features of the two systems. However, approximately half of the submissions that answered this question (15) suggested that having broad international coverage of a trading scheme was important.

Many environmental NGO submissions, including the Greenpeace form submissions, suggested that a greenhouse gas charge would be preferred over emissions trading if an emissions trading scheme could not be implemented in the short term (by 2008). These submissions also suggested that New Zealand may eventually wish to move to an emissions trading scheme.

Q14 Which sectors could and should be included in a New Zealand emissions trading scheme? Could this change over time?

Forty-three of the 169 submitters had a clear position on emissions trading coverage:

- 47% wanted all sectors (or as many as possible) to be included from the start, or wanted all sectors to be included but did not specify a timeframe
- 21% wanted some sectors to be included initially and to move towards including all sectors at a later date
- 26% wanted some sectors to be included in an initial NZ ETS, but either did not specify whether all sectors should be included at a later date or did not want all sectors to be included at a later date
- 7% wanted all sectors to be included (or as many as possible), but emphasised that they did not want or did not expect an emissions trading scheme to be implemented now.

Virtually all submitters emphasised the need to include as many sectors as possible in a New Zealand ETS, to encourage liquidity in the market. However, perceptions of what would be possible varied widely. Several submissions simply suggested that a New Zealand ETS should be as broad as possible, but did not specify any further details.

The relative majority of submitters who wanted all sectors to be included from the start were individuals (29%). Many environmental NGOs, industry groups and the Greenpeace form submissions also supported this option. When the Greenpeace form submissions are included, this approach is supported by the vast majority of submitters.

Some of the submitters who wanted all sectors to be included from the start actively dismissed the notion that agriculture (or any other sector) should be awarded special treatment. Several of these submitters pointed out that agriculture contributes approximately 50% of New Zealand's net emissions, and that excluding these sectors from a New Zealand ETS will reduce its effectiveness. However, most submitters who wanted all sectors to be included from the start recognised the need for different levels of stringency for different sectors.

Submissions from the dairy industry urged the government to initially exclude dairy from a New Zealand ETS on the basis that this sector does not currently have sufficient technology to reduce emissions without reducing production. These submissions suggested that the government should enhance research and development efforts as an alternative measure for the dairy sector. Several submissions from other sectors (evenly spread) also considered that the agriculture sector should *initially* be exempt from a New Zealand ETS because of its present technological restrictions.

Several submissions that supported a phased start to a New Zealand ETS suggested that energy firms (including electricity generators, and suppliers of fossil fuels and gas) could be one of the first sectors to join. Industrial processors were also commonly suggested for early inclusion in a New Zealand ETS. However, several submissions from the industrial sector pointed out that their sector is highly exposed to international competition from countries with less stringent climate change policies and so should not be required to enter a New Zealand ETS until similar measures have been imposed on major trading competitors.

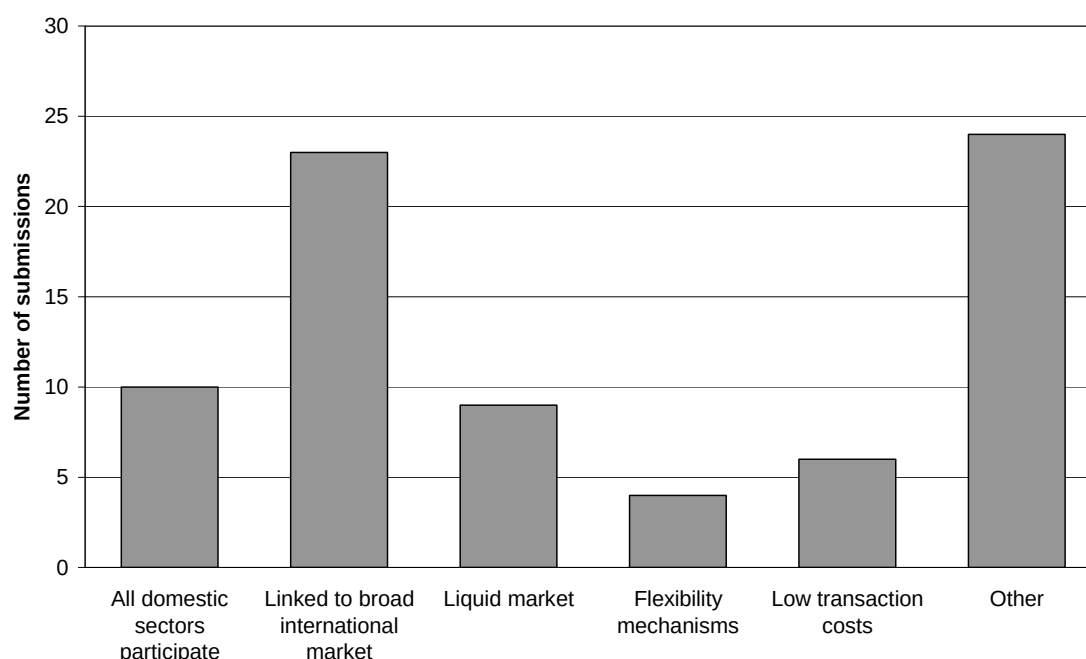
Q15 What design conditions would be necessary for emissions trading to function effectively in the New Zealand context?

The responses to this question were grouped into the following categories:

- all domestic sectors participate
- linked to broad international market
- liquid market
- flexibility mechanisms
- low transaction costs
- other.

Many submissions proposed more than one necessary design condition for a New Zealand ETS. Figure 5 shows the number of submissions that called for each of the design conditions.

Figure 5: Submitted design conditions for a New Zealand emissions trading scheme



Many submitters across all sectors considered it important that a New Zealand ETS be linked to a broad international market to allow access to least-cost emissions reduction opportunities. Similarly, many submitters stressed the importance of broad domestic coverage of a New Zealand ETS, liquid markets, inclusion of all greenhouse gases in a New Zealand ETS, and access to flexibility mechanisms to allow for least-cost emissions reductions. However, several submissions from across the board also stressed the importance of investing in emissions reduction projects in New Zealand, in recognition of the associated long-term co-benefits and reductions in future emissions liabilities.

Some submissions from industry and business called for a substantial lead-in time to a New Zealand ETS to allow firms to develop expertise in measuring, reporting and trading. Several of these submissions suggested that during this lead-in time, all sectors that would be incorporated in a New Zealand ETS should be subject to mandatory reporting of greenhouse gas emissions to agreed international standards.

A few submissions in the ‘other’ category stressed the importance of a well-defined methodology for measuring and reporting emissions. A few submissions in this category commented that a New Zealand ETS should be continuously monitored and updated as required – rather than waiting for a specific review period.

One industry submission suggested that companies that have taken early action to reduce their emissions should be recognised in the design of a New Zealand ETS. This submission was referring in particular to companies who have already reduced their emissions significantly under voluntary agreements with the government.

Many submissions across all sectors suggested that a New Zealand ETS should sit within a framework of legislated emissions reduction targets. This would have the dual purpose of providing some certainty for investors and ensuring that environmental outcomes are achieved. A few submitters also suggested that targets could be set on a sector-by-sector basis, and/or that interim targets could be set within the framework of a long-term target.

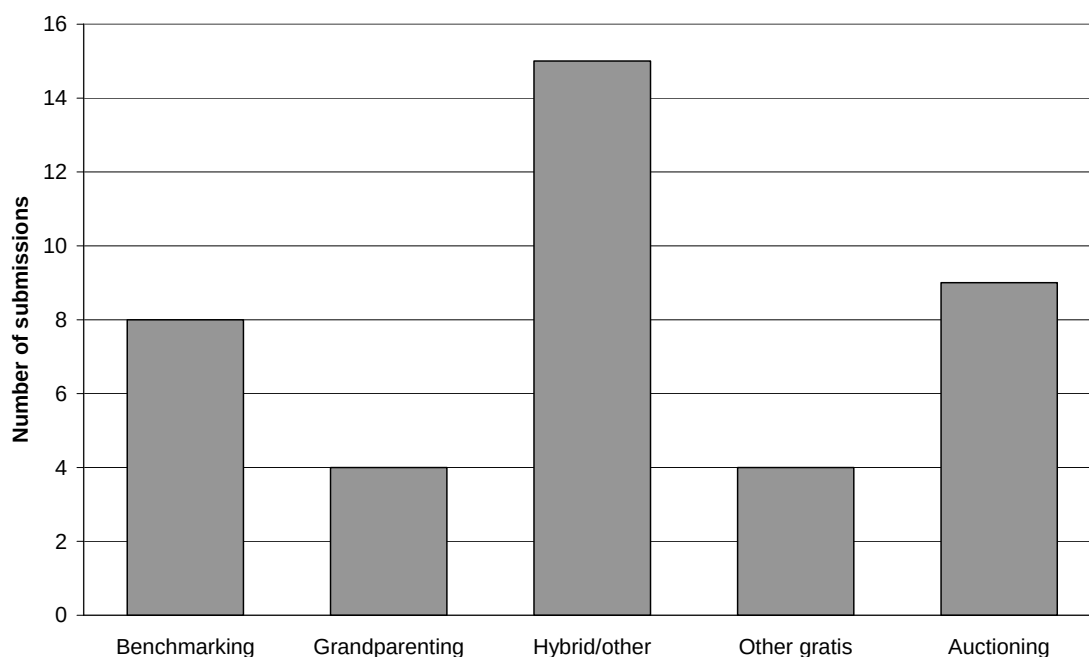
Many submissions from groups with business interests felt that a New Zealand ETS should not be implemented before our trading partners and competitors have indicated a willingness to make a similar commitment. Similarly, many groups with business interests urged the government to undertake full cost-benefit analyses of all feasible policy options before making any final decisions.

One submission from an environmental NGO stated that Treaty of Waitangi issues must be satisfactorily negotiated before a New Zealand ETS could be implemented.

Q16 Which allocation methods would you support: gratis allocation, auctioning or hybrid allocation schemes? Why?

Thirty-nine of the 169 submissions specified a clear view on the allocation method that should be used in an emissions trading scheme. Figure 6 below shows the range of responses to this question.

Figure 6: Submitted preference for allocation method in any New Zealand emissions trading scheme



Hybrid or other allocation was often supported to deal with competitiveness-at-risk (CAR) issues. Support for this approach was distributed across all sectors/groups. Submissions from business and industry groups that supported a hybrid approach generally emphasised the importance of gratis allocation to industries exposed to international competition. However, these submitters also acknowledged that auctioning may be appropriate for those firms that can pass on costs. In contrast, many environmental and community NGOs generally emphasised auctioning (combined with targeted revenue recycling), but acknowledged that some level of gratis allocation may be appropriate for industries exposed to international competition.

Some business submitters expressed concern that full auctioning would require firms to have very substantial funds available to purchase units.

The majority of submissions from environmental and community NGOs, and academic groups, rejected grandparenting as an allocation method on the basis that it would provide windfall profits to polluters (although many acknowledged that some form of gratis allocation would be appropriate for firms subject to international competition).

Many industry and business submitters supported emission trading models contained in two detailed reports on emissions trading, the first provided by an industry stakeholder, and the second commissioned from an independent consultant by business/industry stakeholders. One of these models proposes a *performance-based allocation* methodology for energy-intensive industrial emitters – an approach based on emissions performance per unit of output against a performance standard. The other frequently cited model proposes a hybrid allocation methodology. CAR firms would receive annual emissions entitlements issued on an evergreen rolling basis for 10 years or so, with entitlements for the next three years issued each three years. The gratis allocations would be based, where practicable, on an international best practice standard for emissions efficiency. Firms that could pass on costs of emissions entitlements would be required to purchase units either from Crown auctions or from firms with surplus units.

Under both of these models, at least some emission units would be issued on an emissions intensity basis, which could allow increases in overall emissions to still be covered by gratis allocations.

Greenhouse gas charge

Q17 Would a broad greenhouse gas charge be an effective policy option for reducing emissions in New Zealand post-2012?

For the purpose of analysis, this question was expanded to consider whether a submitter thought that a greenhouse gas charge would be generally effective. Many submitters expressed support or opposition for a greenhouse gas charge without clarifying whether they thought it would be effective in reducing emissions. Furthermore, responses to this question do not necessarily indicate whether a submitter preferred a greenhouse gas charge over an emissions trading scheme.

Sixty-four of the 169 submissions had a clear stance on the effectiveness of a greenhouse gas charge:

- 59% thought that a greenhouse gas charge would be effective
- 30% thought that a greenhouse gas charge would not be effective
- 11% thought that whether a greenhouse gas charge would be effective would depend on domestic and/or international circumstances.

Submitters who opposed a greenhouse gas charge were from all sectors, but the relative majority were from industry (21%) and individuals (21%). The following reasons were given for opposing a greenhouse gas charge. A greenhouse gas charge:

- does not provide certainty of the environmental outcome because it is not linked to an emissions reduction target
- is difficult to apply consistently
- penalises emitters but does not reward mitigators
- requires government to set the price for carbon emissions, and thus would be subject to political interference
- does not enable direct access to the international price of greenhouse gas emissions
- does not provide least-cost abatement opportunities.

However, a few submissions from business NGOs and business and industry thought that a greenhouse gas charge could be more effective than an emissions trading scheme. In general, these submitters were more concerned with economic efficiency than effectiveness in reducing emissions. One submission from a business NGO suggested that certainty in price is more important than certainty in emissions quantity. They suggested that a quantity error could be easily corrected by resetting the target for subsequent years. In contrast, a pricing error could lead to the closing down of some major firms or industries, or large transfers of wealth to other parts of the world and so could be practically irreversible. This submission also referenced studies by economists William Nordhaus and Robert Shapiro, who suggest that a greenhouse gas charge is likely to be more effective, more efficient and simpler to administer because governments already have well-established mechanisms for scrutinising taxes.

The majority of environmental NGO submissions, including the Greenpeace form submissions, suggested that a greenhouse gas charge could be implemented in the short term while the design details of an emissions trading scheme were being worked out. When the Greenpeace form submissions are included in the analysis, it can be said that this approach is supported by the vast majority of submitters. Several of the submissions that support a greenhouse gas charge being implemented in the short term pointed out that much of the work for a greenhouse gas charge has already been done, and so it could be quickly implemented. In this respect, greenhouse gas charges were generally supported as an interim rather than a long-term measure. Several submissions from energy sectors also supported the use of a greenhouse gas charge as an interim measure, although most of these submissions generally preferred an emissions trading scheme over a greenhouse gas charge.

Submitters who thought that the effectiveness of a greenhouse gas charge would depend on domestic or international circumstances were also from all sectors. These submitters referred to CAR concerns, the size of the charge, and the scope of the system. Several submitters thought that a greenhouse gas charge would only be effective if it were coupled with other measures.

One submission commented that a greenhouse gas charge would only be effective if it were suitable for global participation. However, several submissions from business NGOs thought that it would be difficult to interface a greenhouse gas charge with the international market, given that emissions trading schemes are currently favoured ahead of greenhouse gas charges internationally.

Q18a How should the rate of any broad-based greenhouse gas charge be set?

Thirty-one of the 169 submissions gave an answer to this question:

- 19% thought that a greenhouse gas charge should approximate the international price of emissions
- 32% thought that the price should be somehow equivalent to the environmental damage inflicted by the polluter
- 48% gave other suggestions for the rate of a broad-based greenhouse gas charge.

Submitters who wanted the rate of a greenhouse gas charge to approximate the international price of emissions were primarily from business NGOs (33%) and the energy sector (33%). Some of these submitters emphasised that a greenhouse gas charge should dynamically respond to the international price of carbon, and that this may be best accomplished through an emissions regulator.

Submissions that suggested the rate of a greenhouse gas charge should be somehow equivalent to the environmental damage inflicted by the polluter, were primarily from environmental NGOs (50%) and individuals (30%).

The following other suggestions were made on setting the rate of a greenhouse gas charge:

- it would be more effective if it were applied on a sectoral basis
- it should be based on a minimum but steadily increasing charge
- it should increase until a predetermined emissions reduction target is reached
- it should be based on historical efforts at controlling emissions, affordability and profitability of a sector.

Q18b Should the rate vary by sector, and if so, on what basis (the relative ease of mitigating emissions, the availability of alternative technology, and the effect on emitters' decisions)?

This question was only answered by five submissions, none of whom made detailed comments.

International competitiveness

Of those submissions that specified a clear stance on competitiveness-at-risk (CAR) issues, 94% (45) considered it to be an important issue. Generally, the submitters who addressed CAR had a good understanding of the issues, and some submissions went into significant detail, particularly the business and industry sector submissions.

Q7 What measures should the government consider for managing the international competitiveness impacts of its climate change policies?

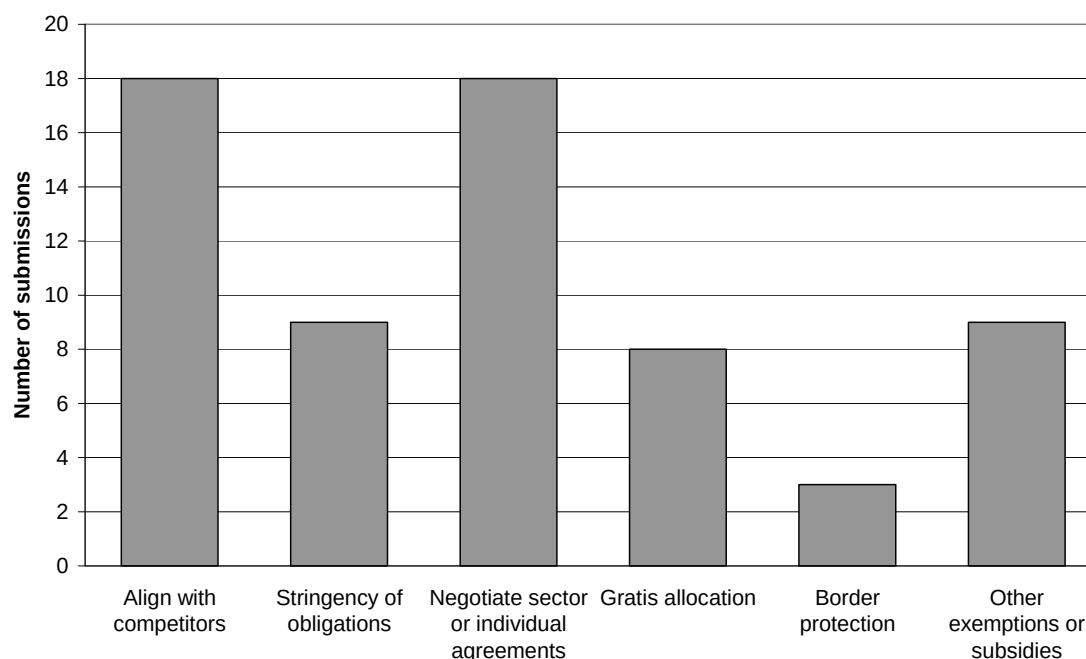
Forty-seven of the 169 submissions gave an answer to this question. The majority (61%) of these submissions were from the business and industry sector or were related to that sector (eg, business NGOs). A number of individual submitters (19%) also provided comments, a number of which were detailed.

The responses to this question were grouped into the following categories:

- alignment with the policies of major competitors
- negotiated agreements with sectors or individual emitters
- allowance for CAR in the stringency of obligations
- gratis allocation of emissions units to allow for CAR
- border protection (eg, border tax or aviation tax)
- other exemptions or subsidies for CAR emitters.

Many submissions proposed more than one measure. Figure 7 below shows the number of submissions that supported each measure.

Figure 7: Submitted responses to the question, “What measures should the government consider for managing the international competitiveness impacts of its climate change policies?”



As a first preference, many submissions suggested that the timing and stringency of policies should be aligned with the policies of major competitors. This would prevent any CAR issues arising. If this was not possible, many submissions suggested that CAR issues would arise and need to be addressed. A number of measures were suggested (listed above).

Most of the submissions from the business and industry sector suggested that a negotiated greenhouse agreement (NGA)⁴ type measure should be used to address CAR. Variations to an NGA-type measure included:

- assessing performance/benchmarking – the ability to permit more flexible methodologies should be considered
- assessing the technical solutions available in determining the sector’s (or firms’) exposure to the price of carbon
- addressing the information asymmetries when assessing a firm’s performance against world best practice
- where the use of ‘best practice’ is impractical, allocate less than 100% of historical emissions per unit of output.

⁴ Negotiated Greenhouse Agreements (NGA) were developed in preparation for the previously proposed carbon tax in New Zealand. Under NGAs, New Zealand firms whose international competitiveness would have been affected by the carbon tax could apply to negotiate an agreement with the Crown. This agreement would have given them full or partial exemption from the tax, in exchange for agreeing to move towards world’s best practice in emissions management.

One submission suggested that measures to address CAR should be outside of any New Zealand ETS, to reduce the risk of distorting the operation of the electricity and carbon markets. Therefore, measures to assist firms should sit alongside a New Zealand ETS and must be direct (so as not to have an impact on the different contractual arrangements between electricity suppliers and their customers), such as a subsidy. Further, any assistance should only be maintained as long as the net national benefit is greater than the costs.

Included in the other exemptions or subsidies category were suggestions such as setting sector thresholds so that the potential negative impact on a sector is not more than 2–3% of the sector's gross margin, and exempting the agriculture sector until there is a range of mitigation options available.

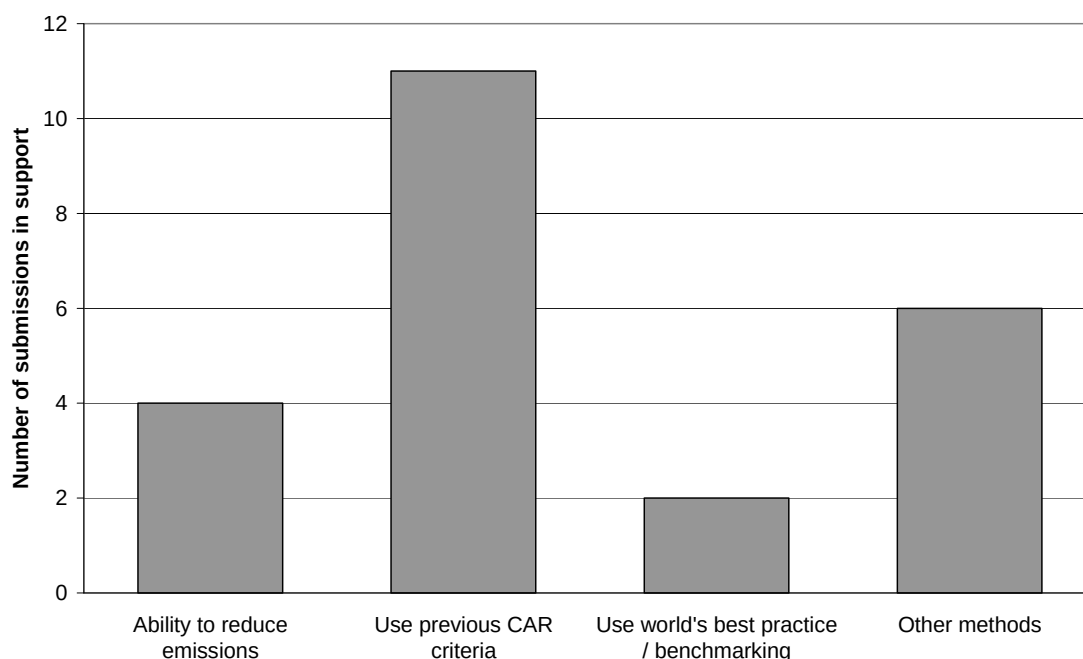
Q8 How might the government set a threshold for acceptable levels of competitiveness-at-risk impacts for firms subject to international competition?

Twenty of the 169 submissions gave an answer to this question. The majority (58%) were from the business and industry sector or were related to that sector (eg, business NGOs). A number of individual submitters (26%) also commented. The responses were grouped into the following categories:

- ability to reduce emissions
- previous CAR criteria specified in the NGA policy
- world's best practice or benchmarking
- other methods.

Some submissions proposed more than one method for defining thresholds. Figure 8 shows the number of submissions that proposed each method for defining thresholds.

Figure 8: Submitted responses to the question, “How might the government set a threshold for acceptable levels of competitiveness-at-risk impacts for firms subject to international competition?”



As can be seen, the relative majority of submitters suggested using the previous CAR criteria specified in the NGA policy as the mechanism to determine the threshold. Variations to the previous CAR criteria included:

- removing the profitability criterion, because it creates unfair and sometimes perverse outcomes (ie, the more inefficient/less profitable firms meet the criteria whereas the more efficient/profitable firms fail to meet the criteria)
- basing the threshold purely on the energy/emissions intensity, or by identifying specific industry sectors that are required to participate
- using only the net national benefit test to determine if the firm should receive financial support – only when the net national benefit is positive, and for as long as the net national benefit remains positive, should there be a wealth transfer to the firm
- including flexibility for some enterprises that do not fit into the standard business model.

A number of submissions suggested that any CAR threshold should not restrict smaller firms from applying. Ensuring that transaction costs are relatively small would reduce this barrier.

One submission suggested that this question could only be answered if the government first determines the level of negative impacts it is prepared to accept. This submitter suggested that an industry agreement regime that allows transaction costs to set the threshold for entry is the most equitable, and probably the most environmentally effective option.

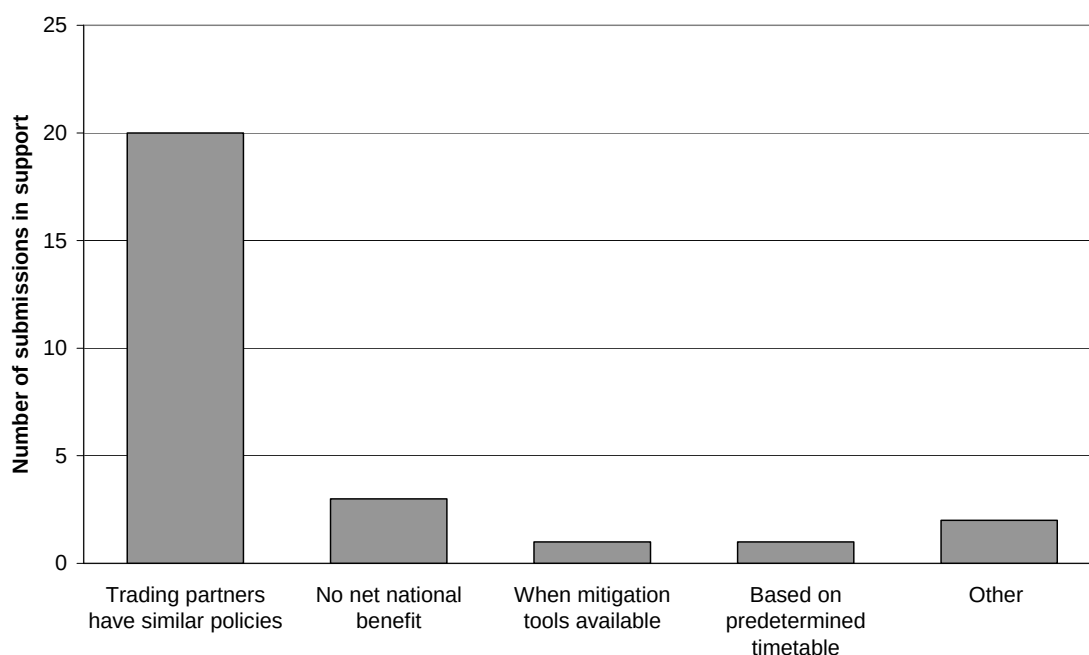
Q9 What conditions would justify removal of any measures to deal with competitiveness issues?

Twenty of the 169 submissions gave an answer to this question. The majority (68%) were from business and the industry sector, or were related to that sector (eg, business NGOs). A number of individual submitters (26%) also provided comment. The responses to this question were grouped into the following categories:

- when similar policies are implemented by New Zealand's major trading partners
- when there is no net national benefit to continue measures to deal with competitiveness
- when mitigation tools became available
- based on a predetermined timetable
- other.

The majority of submitters suggested that only when the majority of trading partners implemented comparable climate change policies should any measures to deal with competitiveness be removed. Some submissions proposed more than one condition. Figure 9 shows the number of submissions that proposed each of the conditions.

Figure 9: Submitted responses to the question, "What conditions would justify removal of any measures to deal with competitiveness issues?"



Some submitters speculated on when trading partners would implement climate change policies. A quoted example was the Point Carbon 2007 Survey Report, which suggests that by 2018 the US will be a full member of a global trading system, and China and other rapidly industrialising developing countries will join with targets. Another suggestion was that by 2012 or shortly after there will be a most-of-the-world agreement to cap greenhouse gas emissions. By inference, some submitters were acknowledging that the competitiveness issue is a short- to medium-term transitional issue.

Directive regulation

Q3 Would you prefer directive regulation to a price-based measure?

Sixty-one of the 169 submissions responded to this question:

- 42% did not prefer directive regulation to a price-based measure
- 38% preferred a portfolio of measures
- 20% preferred regulation to a price-based measure.

In general, there was strong opposition to using regulations as the *sole* measure to mitigate greenhouse gas emissions: 80% of submitters either did not prefer directive regulations ahead of price-based measures or preferred to take a portfolio approach.

A few submitters who supported directive regulation as a sole or long-term measure felt that price-based measures are ineffective in reducing emissions. One of these submitters considered that a price-based measure could be abused and distorted, while another thought that price-based measures are clumsy and unable to rapidly deliver new infrastructure and regulations.

Several submissions from environmental NGOs, including the Greenpeace form submissions, considered that local government should have a role alongside central government in mitigating greenhouse gas emissions. Several of these submitters thought that the Resource Management Act (RMA) should be amended through the Resource Management (Climate Protection) Amendment Bill 2006. A few other submitters supported RMA amendment to streamline consenting issues to improve efficiency and certainty. A few submitters supported greater use of the Minister for the Environment's call-in powers to enable faster resolution of consenting processes.

The majority of submitters who opposed directive regulations being used as the sole measure to reduce greenhouse gas emissions, felt that regulatory tools do not provide the least-cost way to reduce emissions because they are inflexible and 'blunt'. Several submitters from different sectors supported the use of regulation as a last resort, or as a backstop in the case of significant market failure.

The relative majority of submitters who considered that central government should be solely responsible for administering directive regulations were from local government and the business and industry group. These submitters generally commented that greenhouse gas emissions are of national concern and so should be dealt with at a central government level. One of these submitters commented that it would be more efficient and equitable to deal with greenhouse gas emitting activities at a national level.

Q25 Under what circumstances should a regulatory approach be used in place of price-based measures such as emissions trading, a greenhouse gas charge or financial incentives?

Thirty-seven of the 169 submissions responded to this question:

- 41% supported using both as a portfolio of measures
- 31% considered that regulatory approaches should be used as a last resort
- 22% considered that under no circumstances should a regulatory approach be used
- 6% preferred a regulatory approach to price-based measures.

The majority of submitters from across the board supported the use of regulatory measures as part of a portfolio approach to managing greenhouse gas emissions. Submitters who held this perspective noted that regulations could be useful to specify energy efficiency standards in vehicles, buildings and other infrastructure. A detailed submission from a business NGO argued that minimum standards should be used to encourage improved energy efficiency for vehicles, electricity users and building stock. They suggested that the stringency of these standards should be periodically increased to encourage technological innovation and the uptake of efficient technologies. They also strongly argued that it is better for the government to specify energy performance standards rather than support specific technologies such as biofuels. Finally, they recommended that all new initiatives be rolled out in conjunction with a targeted public education campaign.

Some submitters noted that regulations could be used to manage emissions that are unable to be included within the scope of price-based measures. A number of submitters noted that regulations could be useful if a price-based measure is unsuccessful. Others supported the use of directive regulations as interim measures before implementing an emissions trading regime.

Several submissions considered that a price-based measure alone would be a sufficient climate change policy response, and that regulations would not be needed at all.

Do the submitters support or reject the use of a national policy statement (NPS) or a national environmental standard (NES) as a regulatory approach? [additional question]

Thirty-two of the 169 submissions made comments relevant to an NPS or an NES:

- 56% did not support the use of either an NPS or an NES
- 40% supported the use of an NPS with another form of guidance
- 4% supported the use of an NES by itself.

Those submissions in support of an NPS were generally from the energy sector, or from environmental or community NGOs. Those submitters that clearly stated they did not support the use of either an NPS or an NES tended to be from business and industry groups (excluding energy) and local government. The following reasons were given for rejecting the use of either an NPS or an NES:

- these measures take too long to develop and implement
- the RMA should not be used to manage greenhouse gas emissions because climate change is a national issue
- regulation is too blunt and inflexible
- an NPS should not be used to classify renewable energy as more important than other legitimate RMA considerations.

No local government groups supported the use of an NPS and an NES. These submitters were generally concerned with the length of time and cost of developing and implementing such instruments. Several of these submitters stated that the RMA and its regulatory instruments are inappropriate mechanisms to manage greenhouse gas emissions.

The single submitter who supported an NES wished for guidance on wind farm noise.

Those submitters who supported either an NPS on its own, or with an accompanying NES, fell into two generic groups: those who considered such instruments should stop any new thermal generation proposals, and those who thought such instruments would speed up the consenting processes by providing additional guidance to consent authorities.

Voluntary agreements

Of those submissions that specified a clear view on voluntary emissions reduction agreements (ERAs), 67% (18 of 27 submissions) were in support. The majority of submissions that supported ERAs were from the business and industry group, and business NGOs.

Q20 What conditions would be required for emission reduction agreements to be used as an element of post-2012 climate change policy?

Thirty-eight of the 169 submissions commented on the necessary conditions for ERAs. Many who supported voluntary agreements wanted them to be used as a supporting measure to a price-based measure. Several submissions also suggested that ERAs could be used in particular sectors to address CAR concerns. Some submissions suggested that ERAs could be used as a transitional measure, and could continue if international and domestic preconditions for introducing a broad-based emissions trading scheme were not met.

Many of the submissions that did not support ERAs were from environmental NGOs and individuals. Several of these suggested that voluntary mechanisms have been ineffective in the past. In contrast, several submissions from the business and industry group emphasised the success of past ERAs.

Q21 What methods could be used to ensure that emission reduction agreements were sufficiently ambitious to meet government goals, and the commitments made would be met over time?

Thirty of the 169 submissions commented on the methods that could be used for ERAs. Several submissions from the business and industry group suggested that the methods for ERAs should build on the principles for negotiated greenhouse agreements (NGAs). In particular, several submitters supported the world's best practice benchmark that was used in NGAs. A few submitters from business and industry groups felt that credits should be provided to groups that have already participated in voluntary agreements. Several submissions from industry and business groups emphasised the need for targets to be in line with measures adopted by international trading competitors.

A few submissions from environmental NGOs and individuals commented that there would need to be an independent auditing programme for ERAs. Several of these submitters considered that ERAs need to be mandatory, legally binding and enforceable. One individual suggested that if companies did not meet the targets under an ERA, they should be subject to 'naming and shaming, sanctions or financial penalties linked to the international price of carbon'. Several submitters from across the board suggested that the targets within an ERA would need to be reviewed over time.

One submitter suggested that any ERAs should be subject to negotiation with unions because all ERAs have implications for workers.

A submission from a research institute recommended the development of a voluntary verified credits system beyond the Permanent Forest Sinks Initiative. The system could include more diverse sources, including energy efficiency projects and afforestation on non-Kyoto forest land.

Q22 What process could be used to develop emission reduction agreements for major direct emitters?

Twenty-six of the 169 submissions expressed a view on the process that could be used to develop ERAs. All of the responses to this question have been covered in the previous question (Q21).

Overarching comments

What timing did the submitter discuss regarding the implementation of a broad price-based measure? [additional question]

Forty-one of the 169 submissions had a stance on timing for implementing a broad price-based measure.

Many submissions (13 out of 41), primarily from community and environmental NGOs and individuals, thought that a broad price-based measure (PBM) should be implemented now, or as soon as possible. These submitters were generally concerned that any delay would result in the escalation of New Zealand's climate change problem.

The Greenpeace form submission suggested that a broad price-based measure (a greenhouse gas charge) should be implemented by 2008, which is considered to be 'now' for the purpose of this analysis. If the Greenpeace form submissions are considered, then it can be said that the vast majority of submitters support a broad price-based measure being implemented now.

Several submissions from across the board (10 of the 41) considered there should be a phased implementation to a PBM, with some sectors being brought in as soon as possible and other more vulnerable sectors (such as agriculture, aviation and firms exposed to international competition) being included later.

Several submissions from business NGOs and a number from energy groups (10 out of 41) stated that measures should not be implemented until the international setting becomes clearer and a cost-benefit analysis is undertaken. These submitters were concerned about the effect a price-based measure may have on the international competitiveness of some sectors.

Several submissions from the business and industry group and government (5 out of the 41) considered that the government should provide only a price signal now. These submitters generally thought that there needs to be a substantial lead-in time to a PBM to allow businesses to prepare, and to allow the government time to develop a robust and credible scheme.

Q5 Under what conditions should the government support or limit the use of domestic and international flexibility mechanisms by firms or sectors with emissions reduction targets or obligations?

Twenty-eight of the 169 submissions responded to this question:

- 54% supported domestic and international flexibility mechanisms with no stated conditions
- 42% supported domestic and international flexibility mechanisms with some conditions
- 4% did not support domestic and international flexibility mechanisms.

The vast majority of submitters supported the use of domestic and international flexibility mechanisms for firms or sectors with emission reduction targets or obligations. In general, business and industry submitters wanted maximum flexibility in terms of how they meet targets and obligations to ensure that the lowest-cost emissions reductions can occur and price volatility will be minimised.

One submission from an individual stated that flexibility mechanisms should not be supported where such trading distorts another nation's ability to feed, house and provide basic health care and education for its citizens. As an example, the submitter mentioned that accelerated American demand for biofuel appears to have pushed up grain prices internationally, which is affecting the prices of basic food in developing countries and decreasing the value of fixed-budget food aid. The submitter suggested that this is one aspect of international emissions trading that will require careful regulation.

A few submissions from industry and business NGOs expressed a preference for domestic flexibility mechanisms ahead of international flexibility mechanisms. These submitters suggested that relying on international mitigation would make New Zealand vulnerable to future price increases, may have a negative impact on our 'clean green' image, and would not yield the considerable co-benefits associated with investing in projects in New Zealand. Another industry submitter supported flexibility mechanisms but considered that activities that support lasting or permanent reductions in emissions should take precedence over 'one-off' activities.

Q13 What assistance would large direct emitters need to prepare for mandatory monitoring, measurement and reporting?

Thirty-six of the 169 submissions commented on the assistance required by large direct emitters to prepare for mandatory monitoring, measurement and reporting.

Many submitters from business NGOs and business and industry groups thought there was a need for the government to provide approved procedures for measurement, reporting and accounting that are consistent with international reporting requirements. Two submitters suggested that the work of the World Business Council for Sustainable Development and the Clean Development Mechanisms (CDM) methodologies of the Kyoto Protocol could be useful in this regard. A few submitters from industry supported the formation of a working group to develop reporting requirements. One of these submissions stressed that this group would need to be wider than just electricity generators. One submitter suggested that standards could be easily developed from the standards used during NGA negotiations. Another requested flexibility in reporting, and suggested that a company should not be required to report in the government format if their own reporting procedure was 'robust'.

One business submitter suggested that the government should issue a request for proposals for the independent auditing of emissions, and select a list of independent firms that are allowed to undertake greenhouse gas audits and verification work. A government submission suggested that auditing could be undertaken by an independent climate commission with similar power to the Electricity and Commerce Commissions.

Many submissions from business and industry groups and business NGOs emphasised the need for sufficient lead-in time before implementing any changes requiring additional reporting.

Two submitters (from industry and a business NGO) felt that very little assistance was required because large direct emitters are well resourced, and those that operate in a professional manner should already monitor all the relevant process and energy streams. One submission noted that smaller emitters may require assistance in the form of mentoring or coaching.

One submission commented that monitoring and reporting requirements would require the development of new skills among workers. Therefore, this submission suggested, it is critical that work commence to provide direction on what format the additional requirements will take, to provide the basis for the necessary skill development.

One submission from an academic group suggested that the government needs to invest in developing robust tools to estimate and verify net greenhouse gas exchanges in relation to land use.

One industry submitter requested transparency across government agencies for reporting so that reports only have to be submitted to a single agency. This submitter noted that they currently report energy and/or greenhouse gas emissions to the Ministry for Economic Development, Ministry for the Environment, Energy Efficiency and Conservation Authority, and Statistics New Zealand.

3 Additional Comments in Submissions

Several submitters made comments that were not covered by questions in the *Post-2012 Measures* discussion document, but which are relevant to climate change policy development. These comments have been recorded here, and relate to the following topics:

- comments specific to Māori submissions
- comments from the Greenpeace Aotearoa New Zealand form submissions
- union/worker initiatives
- research and development initiatives
- impacts on public health
- local government initiatives
- incentives for small-scale renewable energy
- additional general rates levy
- Kyoto Protocol methodologies
- targets for reducing emissions
- New Zealand's emissions profile.

Comments specific to Māori submissions

Submissions from Māori organisations emphasised a number of concerns, including:

- the status of Māori as Treaty partner
- the need for an integrated Sustainable Development Strategy as a starting point for climate change policy development
- the importance of considerations of equity across economic sectors in terms of the policy impact
- the incorporation of tikanga/value-based and evidence-informed analysis of climate change impacts
- the need to consider the specific issues and realities facing Māori communities
- the need for greater collaboration between government agencies on climate change
- the need for inter-departmental resourcing of an active Māori reference group on climate change, with Māori determining the representation.

Comments from the Greenpeace form submissions

In summary, the Greenpeace form submission supported the following measures (relevant to the *Post-2012 Measures* discussion document):

- the setting of bold greenhouse gas emissions reduction targets: a 30% reduction by 2020 and a 90% reduction by 2050 (from 1990 levels)
- the introduction of a broad-based carbon charge by 2008, with emissions trading possibly phased in later
- complementary measures such as: increased funding for energy efficiency projects; generating funds for energy savings through an Electricity Demand Fund; boosting solar water heating programmes; strengthening the Building Code to increase energy efficiency standards and encourage the use of smart meters; good urban planning; dramatically boosting funding for public transport; increasing the use of biofuels derived from sustainable sources; encouraging hybrid vehicles; increasing fuel efficiency standards; and providing assistance for the least well-off people in society during the economic transformation caused by climate change policies
- an RMA requirement for local and central government to consider the effects of activities on climate change.

Suggestions relating to the other discussion documents were also made.

Union/worker initiatives

A submission from a union stated that climate change mitigation policies will have an impact on workers in New Zealand. Accordingly, the submission requested that the Labour Department be required to analyse and monitor the employment effects of climate change mitigation policies.

The submitter considered that there is great potential to increase union involvement in energy conservation and efficiency through a social partnership approach. They suggested developing a 'Sustainable Workplace Plan' (similar to the existing Health and Safety Workplans). This plan could be a requirement for public service organisations and a voluntary 'goal' for private sector organisations. Such measures may have co-benefits for quality standards at work, health and safety, and workplace productivity.

The submitter also suggested that shortages in labour and skill supply could become a major issue for emerging sustainable and environmentally friendly industries. Accordingly, the union urged the government to begin focused work with industry training organisations to ensure the necessary labour and skills are available to carry out future climate change policies. They suggested energy efficiency should be included in all trades training and engineering qualifications. They also argued that labour and skill supply could be particularly important for initiatives to increase the use of solar water heating, smart electricity networks, biofuels and retrofitting initiatives, along with wind, wave, tidal, hydro or geothermal initiatives.

Research and development initiatives

A submission from a research institute suggested that for Commitment Period One of the Kyoto Protocol (2008–2012), as well as investing substantially in measures to reduce emissions, the government must also invest in research on institutional and behavioural change. This could include monitoring emissions to demonstrate the return on investments, and accelerating research and development and implementation pathways for agricultural emissions reduction.

For any later international climate change agreement (beyond Commitment Period 1 of the Kyoto Protocol) the submitter recommended more rigorous consideration of sources of greenhouse gases and mitigation options. These studies should include climate feedback responses. For example, studies should include enhanced loss of carbon dioxide from soils with increasing temperature, and carbon losses from erosion and indirect greenhouse gas emissions (such as nitrous oxide emissions from waterways). They also recommended further research into the impact of climate change on business and infrastructure.

The submission suggested that the government needs to focus on working out what carbon neutrality means in practice for key export sectors, including:

- assessing the risks and opportunities for the sector
- undertaking a feasibility study to map out a methodology
- developing the required calculators, including metrics for future key performance indicators
- piloting the methodology with a representative sample of organisations for each sector, including highly respected (iconic) early adopters
- establishing minimum standards and best practice for emissions reductions
- rolling out the programme to each sector, with options for a verified emissions inventory (needed for reporting and disclosure), certified emissions reduction (an option for large emitters) and carbon-neutral certification.

Some submitters from the business and industry and business NGO sectors suggested a number of research and development initiatives, including:

- New Zealand co-operation on research and technology development with other nations that have a high potential for, or dependence on, energy recovery from fluid flows (wind, tidal flows, geothermal)
- operational research to identify the level of intervention needed to influence decisions in different circumstances – consideration should be given to all levels of intervention, ranging from public education to compulsory information provision at decision points, clear and stable market rules, minimum standards and (possibly) incentives
- membership in the Asia–Pacific Partnership (AP6) once government and industry have identified the climate change working groups where they can make useful contributions
- investment in, or incentives for, research that determines how overseas technology can be adapted to achieve maximum benefit in New Zealand’s local conditions.

Impacts on public health

The submission from the Ministry of Health focused on strategies to deal with the potential effects of climate change on public health. The primary recommendation was that the Ministry of Health's Health Impact Assessment Support Unit work with the Ministry for the Environment to develop climate change human health impact assessment guidelines. These guidelines would be used to help identify the sensitivity and vulnerability of populations for a range of health issues, and would feed in to climate change policy development.

Local government initiatives

A submission from the local government sector pointed out that in New Zealand, councils are not able to set standards (eg, through local laws) that go beyond the Building Code. In contrast, councils in other countries have the ability to set building regulations to demand minimum energy performance standards and to mandate sustainable technologies. They recommend that similar measures be adopted in New Zealand to allow councils to promote a range of measures that reduce energy, water and waste to their ratepayers.

The submission noted that councils are largely unable to commit significant resources to measures to reduce emissions. Councils wishing to carry out large-scale initiatives often build on existing national initiatives. For example, councils in Queensland, Australia, have offered rebates on solar and heat pump hot water systems to further boost subsidies and rebates from the state and federal government. To this end, the submission suggests that national measures to reduce emissions should take into account potential partnership roles with local government and/or the potential for local government to utilise national initiatives.

The submission noted that the Communities for Climate Protection (CCP) Programme currently only assists councils to reduce operational emissions and community emissions arising from stationary and transport energy and from organic waste to landfill. Councils have been seeking assistance on climate change adaptation and measures to reduce community emissions from the agriculture sector. Consequently, the submission suggested, the CCP Programme should be enhanced to include adaptation and agriculture.

Incentives for small-scale renewable energy

Two submissions from the business sector discussed the implications of climate change policy on waste management and landfill development and operations. They contended that there are significant barriers for small-scale renewable energy generators (eg, landfill gas generators), including:

- reliance on existing network operators to provide grid access
- a limited ability to influence connection fees and charges to embedded/distributed generation
- a limited ability to negotiate over the price paid for electricity.

The submissions suggested that these barriers should be overcome by providing incentives and subsidies, such as capital grants or feed-in tariffs, to small-scale renewable energy producers. They also suggested that a price-based measure should not be applied to the waste management sector, as this would constitute ‘double dipping’ in the waste management sector because the waste levy already aims to reduce greenhouse gas (methane) emissions from landfills. The levy is part of the Waste Minimisation (Solids) Bill, and applies to each unit of waste deposited in landfills.

Additional general rates levy

One submitter proposed that an additional levy, related to the energy efficiency of the person’s residential location, be included in the general rates. This system would penalise those who choose to live in sprawled-out subdivisions, and so would discourage sprawl and the resulting carbon emissions resulting from sprawl-related transport.

Kyoto Protocol methodologies

A business and industry sector submitter urged the government to negotiate with appropriate international bodies to change the current ‘instant oxidation’ assumption for harvested wood covered by the Kyoto Protocol. They suggested that officials promote a system that recognises the ‘locked in’ value of carbon in harvested wood products. The submitter also noted the government’s aspiration to become carbon neutral, and suggested that it work towards this goal by increasing the use of wood and wood-based products in government-funded buildings.

Targets for reducing emissions

Many submissions expressed a desire to see specific targets for emission reductions to be set. Some considered that these targets should be formalised through legislation. The need for formalised targets was a particularly common view of environmental and community NGOs, who considered that the targets should form the basis of New Zealand’s international and domestic response to climate change mitigation.

Some submitters suggested a long-term economy-wide emissions reduction target of 80 to 90% reduction in New Zealand’s greenhouse gas emissions by 2050, compared to 1990 levels. These submitters considered it necessary that targets be subject to both revision and an increase in precision as understanding of the risks of both abrupt and gradual climate change increases. Other submitters, including business NGOs, suggested that emissions management agreements, with agreed targets, could be a precursor to a price-based measure if, in the future, this were found to be the least-cost method of emissions reductions.

New Zealand's emissions profile

Some submissions were concerned that the policies in the discussion document were not framed within the context of New Zealand's emissions profile. Some of these submissions noted that the proposed measures tend to focus too heavily on the electricity generation and stationary energy sectors. They commented that for future New Zealand policies to be effective, they must address the transport and agricultural sectors, which make up some 68.9% of New Zealand's emissions and are still growing.

Criticism of the consultation documents

During public consultation meetings and in some submissions across the discussion documents, some stakeholders noted that the discussion documents presented high-level policy options and did not include detailed information on policy design or cost-benefit analysis of policy impacts. A number of submitters also criticised a perceived lack of coherence and consistency between the various climate change consultation documents.

Further consultation and communication

Many stakeholders, particularly Māori and industry groups, expressed an expectation or desire for further consultation on detailed preferred options, and/or further quantitative analysis of impacts, prior to final Cabinet policy decisions. Industry groups recommended that further consultation be undertaken so that policies can be developed in a thorough and open way, in order to achieve widespread 'buy-in'.

Appendix: Summary of Selected Detailed Emissions Trading Submissions

Abbreviations used in the following tables: ABRCC = Australian Business Roundtable on Climate Change; CAR = competitiveness at risk; CO₂ = carbon dioxide; CP1 = Commitment Period One; ET = emissions trading; ETS = emissions trading scheme; GHG = greenhouse gas; NGA = negotiated greenhouse agreement; NZIER = New Zealand Institute of Economic Research; nWBP = world's best practice normalised for technology; PoO = point of obligation; RMA = Resource Management Act.

Short description	Preparation required/ prerequisites	Coverage	Target/stringency	Allocation method	CAR	Flexibility mechanisms/ linkages	Other
By inference, cap and trade some time after 2008	Not stated. Should immediately introduce carbon charge – timing not specified for emissions trading. Data collection should be put in place for full life cycle, accounting for air and sea transport.	Should be emissions pricing across all sectors and significantly more coverage of air and sea transport than provided in discussion documents. Work towards cap for air transport to New Zealand.	Long-term economy-wide target of 80–90% versus 1990 by 2050; 20% reduction by 2020. Transport: 15% reduction by 2025, 50% by 2040, 90% by 2050.	Auctioning and/or citizen allocation (allocation of units to individuals).			Treaty of Waitangi issues with creation of new property right must be settled. Also supported use of RMA to control emissions.
Cap and trade GHG market by 2009	Implement by 2009. New capacity needed by 2012 and without a stable pricing environment decisions on long-term investment will be difficult. Good estimates required of electricity sector's share of emissions. Companies have strong incentives to report emissions. Little would be gained by regulated triple bottom line reporting.	As broad-based as possible, but only in sectors where the abatement benefits exceed the costs. Stationary energy sector appears to be one of those – other sectors added when it becomes cost-effective.	Initial cap set to achieve meaningful reductions by 2012. If initial cap set at \$20–\$30/ tonne (electricity sector), then 40% emission reductions. At \$20/tonne wholesale market price 10% higher. Energy sector's cap should be related to its percentage of New Zealand emissions. Consider UK Climate Change Bill, which has clear reduction targets, legally binding five-year CO ₂ budgets set 15 years ahead, agency to monitor, and obligation on government to report on progress.	For electricity sector should be by auction, both to incumbents and new entrants. Some permits could be allocated free to mitigate impacts on trade-exposed sectors. Create certainty by allocating annual permits on rolling basis. Do not tax 'windfalls' from price increases. Tax would simply remove revenue from an industry that is gearing up to make millions of dollars of investments in renewables. Also very complex to do.	Could allocate some permits free to trade-exposed sectors	Need to link to as many reputable schemes as possible. Should consider broadening Closer Economic Relations (CER) into climate change. Link to Australia notwithstanding non-Kyoto. Offsets from non-covered sectors should be permitted.	PoO should be placed where it is most cost-effective to do so. Shift up or down the supply chain if there are benefits to doing so. High value of certainty – consider features of the UK Climate Change Bill for New Zealand. Concept of GHG reduction targets in legislation would provide powerful framework for an ET scheme.

Short description	Preparation required/ prerequisites	Coverage	Target/stringency	Allocation method	CAR	Flexibility mechanisms/ linkages	Other
Cap and trade linked to global carbon price		All sectors. Include domestic aviation in scheme. For foresters, either devolve credits and debits to Kyoto foresters and ignore non-Kyoto; <i>or</i> impose liabilities on both and make a one-off payment to all forest owners; <i>or</i> pay those who can show a significant reduction in land value as a result of deforestation restriction.	All sectors should face the same marginal emission price. Sectors would not necessarily face the same price for all their emissions.	Principles – should not issue more credits than are reliably available, introducers of fossil fuels should pay for all their emissions, subsidised allocation of units for CAR firms, allocation of credits to sectors to use simple allocation to a date (eg, 1998 levels), taking into account knowledge of best practice in sector.	To be eligible, show that plant closure would result from full carbon price, which would result in a net increase in global emissions, and closure would have a concentrated employment impact.	Linked to international price (by inference international links).	PoO should be small number of entities: (i) importers and producers of fossil fuels, (ii) farmer co-operatives in farming sector, and (iii) Kyoto forest owners.
Supports NZIER report: 'Emissions Trading Scheme for New Zealand'	Firms above a threshold size of plant/operation should be required to measure and report energy use and CO ₂ emissions. Pilot ET scheme to be introduced once credible emissions reporting and rigorous analysis of environmental and economic effects. Once long-term international rules determined, then scheme of type in NZIER report to be introduced.				CAR firms should receive efficiency-based gratis allocation. Best practice standard set at (eg) upper quartile or decile of an international peer group). For smaller entities, allocation could be based on (eg) an energy audit.	Scheme should maximise flexibility, including options for offsets from the forestry and agriculture sectors.	
Upstream firms inputting energy into the economy required to provide Kyoto units for each tonne of emissions	Start from 1 January 2008.	Energy sector have an obligation to provide units for all emissions. Potential inclusion of forestry and agriculture through baseline and credit system (for emissions below or in excess of a baseline), or through PRE-type or other incentive schemes.	Provision of units for all energy emissions.	No allocation as such, just a responsibility to surrender units. CAR firms eligible for benchmarked provision of units. Agriculture and forestry could receive units for 'additional' actions.	Obligation to surrender units for emissions in excess of negotiated baseline or receipt of units for over-performance. Continued improvements in baseline required.	Automatic link to Kyoto markets assumed. Possibility for project-based mechanisms in the agriculture and forestry sector.	Revenue recycling is an important element of the package, including for a carbon fund for adaptation, CAR firms, structural changes in economy and addressing market failures.
Based on proposal immediately above with some extensions. Create an obligation for those that introduce fossil fuels into economy to acquire Kyoto units		Covers energy sector. Range of options discussed for forestry. For agriculture, aggregate allocation of emissions via dairy, meat and wool processors with obligations for CAR parts of sector. Obligations could be limited to a proportion of emissions, as with industrial CAR firms.		As for proposal immediately above, no explicit allocation of permits.	CAR firms negotiate with upstream providers to assume emissions liability. Negotiate with Crown to limit unit obligation to a proportion of emissions. No <i>explicit</i> grandparenting of reductions.	International links. New Zealand-based projects mechanism.	Allow downstream entities to assume direct liability for emissions if they wish.

Short description	Preparation required/ prerequisites	Coverage	Target/stringency	Allocation method	CAR	Flexibility mechanisms/ linkages	Other
Broad-based ET scheme introduced at the appropriate time. No detail for non-electricity sector. New generation required to acquire and surrender permits	Signalling a future permit requirement now will be sufficient to deter electricity generation from fossil fuels. For broad-based trading a variety of issues need to be addressed. Cites NZIER report. Any implementation of ET should not proceed in advance of competitors.	Broad-based.	Support renewables to the extent that avoiding increased emissions will save buying permits at the prevailing international price of carbon.	Sale to new generators. Existing generators should receive gratis allocation according to their position in relation to best practice emission intensities at the time of policy inception. Do not give permits to non-emitting generators.	Should be no problem – do not implement trading scheme until major trading partners have comparable measures. If cannot avoid delay, then use NGA-style policy.	Internationally linked. If there is no future international regime, then the point of climate change policy is questionable. Nevertheless, if a domestic policy is still seen as being desirable in this case, New Zealand could move to a domestic emissions tax rather than emissions trading.	
Move the whole economy towards engaging in a global integrated ET system from 2012	Companies that bring fossil fuels into the economy required to purchase and retire Kyoto units to match the emissions from those fuels.	Energy sector. Agriculture responsible for emissions above 1990 baseline, but sheep and beef industries exempted until their emissions rise above 1990 levels. For forestry, ringfence credits from Kyoto forests for projects that benefit the forestry sector, including a payment for all Kyoto forest for a proportion of the value of carbon sequestered, replanting incentive for pre-Kyoto forests during CP1, research and development for forestry industry.	All sectors should face world price for carbon from 2008, even if only at the margin. Taxpayer liability in 2012 should be covered by emitters. Need to play our part in the globally recognised need to reduce emissions by at least 60% below 1990 levels by 2050.	See coverage section. Place obligations on energy sector to retire units rather than allocating units.	Allow CAR industries to negotiate exemptions up to 90% of emissions provided they upgrade plant to world's best practice in energy and emissions management.	International trading.	Set PoO so that ordinary consumers and most businesses do not have to engage with international emissions trading.
Cap and trade or similar regime	Caps consistent with proposed national targets, no grandfathering, and Treaty of Waitangi issues addressed.	Wants broad-based price instrument.	Caps to be consistent with 30% reduction in emissions by 2020; 90% by 2050. Government should set shorter-term interim targets (eg, two-yearly).	Reject grandfathering.			Must address Treaty of Waitangi issues with creation of a new property right.

Short description	Preparation required/ prerequisites	Coverage	Target/stringency	Allocation method	CAR	Flexibility mechanisms/ linkages	Other
Broad-based ET scheme from 2013, with gratis allocation based on differentiated benchmarks for energy-intensive industrial sector, transitioning to long-term sector-wide target	End 2012 Voluntary Agreement scheme and mandatory reporting of emissions to agreed international standards for future ET system participants, allowing the setting of reliable baselines. Any interim policy measure should build capacity in monitoring emissions across all sectors.	Broad-based. Detail not provided for inclusion of non-industrial sectors.	For industrial sector – long-term industry target set for 2035–40 and converging differentiated benchmarks for individual participants to get there. Targets are intensity-based rather than absolute.	For the energy-intensive industrial sector, use nWBP benchmark (world's best practice normalised for technology) to set the baseline for initial allocations under Voluntary Agreements until 2013, with transition to performance-based allocation (PBA) methodology used in long term. Under PBA, overall sectoral allocation is made on the basis of a sectoral average performance benchmark, less an improvement percentage based on potential to improve sector performance (not best available technology). To transition – have Voluntary Agreements with nWBP target to 2013, and set long-term target for 2035–40 and differentiated benchmarks for different technologies that converge on long-term target. This provides transition path for firms with significant sunk cost in old processes. Ex ante allocation of units based on forecast production with ex post true up for actual production. Note this is an intensity-based approach.	Benchmark allocation for energy-intensive industrial sector. Need to flexibly and fully account for the way competitiveness is addressed by trading partners.		
Cap and trade phased in in three stages, with increasing sectoral coverage and increasing obligation for percentage of emissions		Broad coverage, phased in over time: (1) energy 2008, (2) industrial heat and power (IHP) and large direct emitters, (3) all sectors by, say, 2013 (may use charge rather than trading for agriculture). Increasing obligation for emissions over time in covered sectors. As many sectors of the economy as possible.	Stage 1: By 2008 energy companies must surrender Kyoto units for 20% of emissions or pay a penalty price that approximates price of carbon. Increases to 30% by 2010. Stage 2: By 2010 include major direct emitters and IHP; 40% obligation moving up to 60%. Stage 3: In 2013, whole economy covered by scheme (or faces equivalent cost). National cap is set and emission reduction target provided for each sector. Critical not to set unrealistic emissions caps – amounts to a draconian carbon charge.	In stage 3 a gratis allocated portion of target to match contribution to sector's emissions (starting at 40% and decreasing by 10% annually). Use performance-based allocation method. Grandparent emissions based on some prior period.	Any exemptions should be on the basis of a national cost-benefit analysis.	Use Kyoto units – link to international ET under Kyoto. Use domestic offsets scheme that provides domestic supply of units. Units provided at a discounted rate for reductions additional to business as usual. Design to enable cross-sectoral and inter-country trading.	All renewable generation, including geothermal power, should be treated as zero emitting.

Short description	Preparation required/ prerequisites	Coverage	Target/stringency	Allocation method	CAR	Flexibility mechanisms/ linkages	Other
Interested in cap and trade	Don't believe it is so much a question of pre-conditions for introducing a price of carbon, more of modifying design elements to meet those conditions.		Important to correctly estimate a cap for each sector and ensure there is not over-allocation. Design should include method and timeframe for any reduction in allowances.		Use broadly similar approach to NGAs, but need to allow application to smaller firms, and reach agreement on protecting CAR as efficiently as possible.	Take advantage of existing Kyoto emissions market.	Need long duration market to allow for industries with long investment cycles.
Broad-based scheme with gratis allocation on a bench-marked basis for industries facing international competition		Broad coverage, including all greenhouse gases.	Supports the adoption of a long-term target with sub-level targets based on emission and energy performance, with an allowance for economic growth.	Gratis allocation on a benchmarked basis. Auctioning has no environmental benefits over gratis allocation.	Ideally match domestic policies with trading partners' policies. Otherwise retain core principles of NGA process – benchmarked gratis allocation.	International links critical. Use offsets and banking.	Support downstream PoO for major emitters. The impact of any ET scheme on the submitter will largely depend on the scheme's design.
Mixed auctioning/ intensity-based system	For agriculture – medium-term objective to solve agriculture measurement issues to allow inclusion in New Zealand ETS.	Broad. Need to solve measurement issues for methane emissions from agriculture before inclusion. Fertiliser suppliers should have emissions obligation based on volume sold. Forestry to be included in an ET scheme. Credits accrue while growing, small debt on harvest (to reflect life of harvested wood products), and this can be offset by replanting.	Climate change target or mitigation mechanism that yields a net benefit to New Zealanders.	Auction to firms capable of passing on costs. Gratis allocation to CAR firms based on international best practice (eg, top decile or quartile of peer group) per unit of production (ie, intensity-based). Emission obligations for thermal and geothermal generators. CAR electricity users receive gratis allocation of units per unit of output to match loss of profitability up to international best practice use of electricity. Annual entitlements issued on a rolling basis for (eg) 10 years, with entitlements for next three years issued at 3, 6, 9 years etc. Banking allowed for indefinite period. Borrowing of up to 10% from future year's entitlements allowed with 1.15 x 'interest'. Failure to hold emissions entitlements results in fine + 1.15 x increment to existing obligation.	Gratis allocation to CAR firms per unit of output based on international best practice.	Units should be fully fungible [freely exchangeable or replaceable] with any other units that are recognised by the international body New Zealand is responsible to (eg, under a Kyoto regime, Kyoto units).	Points of obligation vary between sectors. Downstream firms in sectors with upstream obligations may voluntarily accept emissions obligations and emissions entitlements – these firms will need to negotiate with upstream supplier and bear any cost of entitlements. Re forestry, questions the instant emission assumption in Kyoto accounting, and New Zealand responsibility for emissions from exported wood products. Future international agreements should remove this, or if not, taxpayer should bear cost. Debt for forester on harvest should be small, and should not be repaid unless forester does not replant. Arrangements for plantation forestry should apply to regenerating bush to equalise incentives.

Short description	Preparation required/ prerequisites	Coverage	Target/stringency	Allocation method	CAR	Flexibility mechanisms/ linkages	Other
Prefers cap and trade	Set long-term target (referring to Australian Business Roundtable on Climate Change – ABRCC) public statement that government will not provide any indemnity against future carbon risk. Government assist in capacity building for measurement, monitoring and reporting.	As wide as possible. Stationary energy sector may be more suitable for inclusion than others.	Refers to work of ABRCC. Many jurisdictions have legislated long-term targets of 60% reductions by 2050.	Full auctioning. Free allocation to CAR industries to offset costs of carbon signal.	Free allocation to CAR industries to offset costs of carbon signal.	New Zealand could join Australian ET scheme. Three approaches: (1) at most basic, share experiences, (2) share infrastructure but separate schemes (separate targets and price signals), (3) fully unified scheme with a single price and combined target like EU ETS.	Feasible to implement an emissions trading system by 2010. Counterproductive to implement transition measures for only a couple of years. Need the 'no carbon holiday' statement during transition though.
Internationally connected broad ETS with benchmarked allocation to CAR firms	Hard data required to set cap or baseline. Need liquid market in internationally tradable units. Should credit early action and announce this early on.	As broad as possible. In some sectors would be necessary to make the point of obligation upstream or downstream of the emitter.	New Zealand should not commit to a pathway until the post-2012 environment is much clearer.	Gratis allocation to CAR firms based on a performance benchmark. Set at upper quartile or decile for a particular industry or firm. Unallocated permits could be sold by auction. Note that the practical impacts of requiring cash on hand to purchase units may outweigh the efficiency benefits of auctioning.	Gratis allocation. Utilise NGA principles, where possible. For CAR major emitters prior to 2012 use emission reduction agreements based on wbp target with a clear signal this will be the basis for allocation in any post-2012 ETS.	International trading. Enable banking and borrowing of allowances. Include cross-sectoral offsets.	
Preliminary proposal for transition to emissions trading in electricity sector. Use a combination renewable requirement and marginal trading scheme with obligation for existing thermal generators to match level of new renewables. New thermals face full price.		Electricity sector.	Varies depending on level of renewables. Proposed transition to full price by 2018 or other transition period chosen.	All abatement from new renewables receives allowances. Obligations allocated on a pro rata basis to existing thermals. New thermals face full obligation. For longer-term ET, advocates most permits auctioned.	Provides for transition to full carbon pricing. In more general discussion of post-2012 ET, suggests that some gratis allocation may be justified to CAR energy consumers.	Use of Kyoto units – links to other markets	Preferred transitional measure is a narrow carbon charge from 2008.