Emissions Trading Scheme Review 2011

Issues statement and call for written submissions

Emissions Trading Scheme Review Panel

11 March 2011

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Contents

List of figures

List of tables

1 Introduction to the Emissions Trading Scheme Review

1 The Climate Change Response Act 2002 (the Act) requires a review of the New Zealand Emissions Trading Scheme (the ETS) to be completed before the end of 2011. The Act requires the Minister for Climate Change Issues (the Minister) to appoint a panel (the Panel) to conduct the review and specify the terms of reference for its review.[1] The Panel was appointed in December 2010 and started work in February 2011.

2 Under the terms of reference specified by the Minister, the Panel has to provide a draft report by 3 June 2011 and a final report by 30 June 2011.[2] The Minister will publish the Panel's final report. The report will set out the Panel's conclusions and recommendations. These will be based on the information and evidence provided by stakeholders and additional analysis conducted by the secretariat to the Panel.

3 This consultation document sets out the issues on which the Panel wishes to focus consultation with stakeholders. The Panel is seeking written submissions only at this stage. The deadline for written submissions is **5.00pm on Wednesday 6 April 2011**. The Panel also intends to hold meetings with some stakeholders.

4 This document is structured as follows:

- chapter 1 sets out the objective and remit of the Panel
- chapter 2 provides a brief background to the ETS
- chapter 3 sets out the actual and expected impacts of the current ETS
- chapter 4 sets out the key issues for the ETS after 2012
- chapter 5 sets out the options for reducing emissions of synthetic greenhouse gases
- chapter 6 summarises the questions posed by this consultation and the process for stakeholders to provide their written submissions.

Objective and remit of the Panel

5 The objective of the review is to provide the Government with recommendations on steps that can be taken to ensure the ETS after 2012:

- helps New Zealand deliver its 'fair share' of international action to reduce emissions, including meeting any international obligations
- delivers emission reductions in the most cost-effective manner
- supports efforts to maximise the long-term economic resilience of the New Zealand economy at least cost.

[1] For the full terms of reference see: http://beehive.govt.nz/release/govt-announces-ets-review

[2] The Act requires that a review is completed within 12 months of when the review is initiated.

6 Under the Act, the Panel is required to review the operation and effectiveness of the ETS, and must consider the matters set out in section 160(5) of the Act.[3] In summary, these include:

- whether an amendment to the Act is necessary or desirable
- whether New Zealand has undertaken, or is expected to undertake, additional or new international obligations and their stringency
- the contribution of the ETS towards any targets that are in effect
- the types of emissions units permitted under the ETS
- the operation of the commitment period reserve
- potential linkages to overseas emissions trading schemes
- the appropriateness of any methodologies prescribed for calculating emissions and removals
- whether it is necessary or desirable to omit certain activities from the ETS, add any removal activities to the ETS and amend opt-in thresholds
- whether changes to the provision of allocation are necessary or desirable
- the appropriateness of penalties
- the implications for New Zealand's emissions and price of emission units of any notification of the Crown's intention to allocate or sell New Zealand Units
- the impact the forestry sector's inclusion in the ETS has had on biodiversity
- the costs and benefits of establishing an independent or quasi-independent government body to carry out all or part of the allocation process
- the social, economic and environmental effects of the ETS.

7 In considering these matters, and in preparing its report, the Government has requested the Panel focus on the high-level design of the ETS, giving particular attention to:

- priority issues and questions for key ETS design settings arising from possible international frameworks post-2012, and considerations that the Government might apply in developing a response to these priority issues and questions
- whether the ETS should continue to scale up to a full obligation[4] and whether new sectors should incur surrender obligations on current legislated timetables after 2012, taking into account the domestic actions of key competitors, or what conditions should be met before proceeding with further sectors entering into the ETS
- the inclusion of synthetic greenhouse gases within the ETS, taking into account alternative approaches to reducing such emissions.

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[3] For these matters see: http://www.legislation.govt.nz/act/public/2002/0040/latest/DLM158584.html

[4] Under the current transitional period, due to end on 31 December 2012, a full obligation does not apply because a fixed price option of $25 per unit is available, and only one unit needs to be surrendered in respect of each two tonnes of emissions.

8 The terms of reference also specify what the Panel should not focus on, namely:

- whether an emissions trading scheme is the most appropriate response to climate change for New Zealand
- whether New Zealand should be taking action on climate change
- climate change measures outside of the ETS (except to the extent that the issues above, to which the Panel has been asked to give particular attention, raise broader issues about the best means of meeting New Zealand's international obligations).

9 Finally, in its considerations, the Panel has been asked to take into account the effectiveness and efficiency of the NZ ETS, giving particular attention to the following factors:

- short-term costs, competition and competitiveness impacts – the costs for New Zealand and associated impacts on the competitiveness of its firms between now and 2020
- administrative efficiency including transaction costs
- impacts on long-term economic resilience – ie, the long-term risks and opportunities for New Zealand's economic resilience
- environmental integrity – the impact on New Zealand's domestic emissions profile and international efforts to reduce greenhouse gas emissions
- the need to balance the efficient design of the NZ ETS vis-à-vis our trading partners and environmental effectiveness
- equity between sectors and groups – ie, the distribution of costs and benefits between sectors and groups (including iwi).

2 Background to the ETS

10 Climate change is a worldwide concern. The science underpinning climate change and the need to take action to reduce emissions is widely accepted by countries around the world, including New Zealand.[5] This science specifies that increasing human-made emissions of greenhouse gases will raise global temperatures, increase sea levels and lead to more extreme weather events.[6]

11 New Zealand is an active participant in international efforts to reduce greenhouse gas emissions under the United Nations Framework Convention on Climate Change (UNFCCC) and its subsidiary agreement, the Kyoto Protocol. New Zealand has accepted obligations to review and limit these emissions and has adopted as its primary mechanism to achieve this outcome a market-led emissions trading scheme. The ETS is a means of contributing to these international efforts by using costs as an incentive to change behaviour and encourage the reduction of emissions. The Panel has been asked to review the ETS to assess its operation and effectiveness, including how it should evolve beyond 2012.

New Zealand's international obligations on climate change

12 Under the UNFCCC, developed countries (called 'Annex I' countries),[7] including New Zealand, have an ongoing general obligation to put in place policies and measures to reduce greenhouse gas emissions, and enhance carbon sinks.[8] Under the Kyoto Protocol, most Annex I countries face a legally-binding responsibility target to reduce emissions.[9] New Zealand's legally binding responsibility target is to maintain average emissions at 1990 levels across the five-year period from 2008 to 2012.

13 Negotiations on the nature of the international framework beyond 2012 are continuing. As part of these negotiations, New Zealand has made a commitment to take responsibility for reducing emissions by between 10–20 per cent on 1990 levels by 2020, conditional on a number of factors.[10]

14 New Zealand's Kyoto Protocol obligation and 2020 conditional target offer are both responsibility targets, in that New Zealand may meet these targets by a combination of reducing its domestic emissions and paying for equivalent emission reductions

5 For more information on the science of climate change see: http://www.climatechange.govt.nz/science/what-is-climate-change.html

6 For more information on the impacts of climate change see: http://www.climatechange.govt.nz/physical-impacts-and-adaptation

7 These countries are Australia, Austria, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Estonia, European Union, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Liechtenstein, Lithuania, Luxembourg, Monaco, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russian Federation, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine, the United Kingdom of Great Britain and Northern Ireland and the United States of America.

8 Carbon sinks, such as forests, remove or store carbon dioxide from the atmosphere.

9 The only exception is the United States of America, which has not ratified the Kyoto Protocol.

10 For details of these conditions see: http://www.mfe.govt.nz/issues/climate/emissions-target-2020/index.html

elsewhere. Whether New Zealand faces a net cost or benefit from this obligation will depend on the level of the target and the response of the economy to measures taken to meet it. New Zealand is expecting to exceed its Kyoto Protocol commitments and therefore to receive a net benefit.

15 The shape of the international framework beyond 2012 is uncertain. At the UN Climate Change Conference in Copenhagen in 2009, a large number of countries (including New Zealand) signed the Copenhagen Accord. Under this Accord, countries offered emission reductions by 2020 and committed finance to the developing world. At the UN Climate Change Conference in Cancun in 2010, there was agreement to bring the key elements of the Copenhagen Accord formally into the UNFCCC process through the Cancun Agreements.

16 Beyond 2020, the Government has indicated a goal to reduce emissions by 50 per cent on 1990 levels by 2050 and has consulted on a proposal to notify this target in the New Zealand Gazette.[11] If such a target is gazetted, then this will have an impact on the terms of reference for future ETS reviews.

New Zealand's emissions profile

17 New Zealand faces particular challenges in meeting targets to reduce emissions compared to other developed countries due to its emissions profile.[12]

18 Around 50 per cent of New Zealand's emissions come from agriculture. The number of options to reduce emissions from agriculture is more limited in the short term compared to other sectors. New Zealand is supporting international research efforts to increase options, including through the Global Research Alliance on Agriculture Greenhouse Gases.[13]

19 Forestry is also important to New Zealand's emissions profile as it acts as a carbon sink, ie, absorbs carbon from the atmosphere, and is a key reason why New Zealand is expected to meet its Kyoto Protocol obligations up to 2012. However, forestry emissions are cyclical as the majority of carbon absorbed as trees grow is returned to the atmosphere when they are harvested. Accordingly, New Zealand's net emissions are also cyclical.

20 A high share of New Zealand's electricity generation comes from renewable sources.[14] This high share means emissions from electricity generation are low compared to many developed countries. However, as a consequence, New Zealand lacks abatement options that these other countries have.

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11 See: http://www.mfe.govt.nz/publications/climate/nz-2050-emissions-target/

12 For more details of New Zealand's emissions profile see: http://www.mfe.govt.nz/publications/climate/nz-fifth-national-communication/index.html

13 For more details of this Alliance see: http://www.globalresearchalliance.org/

14 This share varies from year to year depending, for example, on the availability of hydro-generating capacity. See: http://www.med.govt.nz/templates/ContentTopicSummary 21417.aspx

The ETS

21 The ETS is New Zealand's primary response to the challenge of reducing greenhouse gas emissions. It is complemented by a range of other measures, such as energy efficiency programmes and agricultural research.[15]

22 The Act specifies that the purpose of the ETS is to support and encourage global efforts to reduce greenhouse gas emissions by:

- assisting New Zealand to meet its international obligations
- reducing New Zealand's net emissions below business-as-usual levels.

23 The ETS achieves this by:

- ensuring any costs of meeting New Zealand's international obligations fall on emitters, rather than taxpayers, as they are best placed to reduce emissions
- providing incentives to reduce emissions below business-as-usual levels, including through implementing a price for carbon.

24 An ETS was selected in preference to a carbon tax or other measures for the following reasons:

- economic efficiency – the market seeks the cheapest emissions reductions across sectors and sources and sets a price for emissions
- flexibility – trading allows New Zealand to manage its emissions over time and between sectors
- best fit with the international framework (see the *Links with international carbon markets* section below).

25 The ETS came into force on 26 September 2008 and was amended in 2009 following a review by a special Select Committee.[16] It was amended to moderate the initial impacts of the ETS during the worldwide economic downturn. The key amendments were:

- the introduction of a transition phase (see *Transition phase* section below)
- the introduction of an alternative method of allocating New Zealand Units (NZUs) to sectors impacted by the ETS so that allocation varied with the level of output (see *Allocation* section below
- deferral of the date when the agricultural sector enters the ETS from 2013 to 2015.

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15 New Zealand's major climate change mitigation policies are detailed in the Policies and Measures chapter of New Zealand's 5th National Communication, see: http://www.mfe.govt.nz/publications/climate/nz-fifth-national-communication/index.html

16 The Emissions Trading Scheme Review Committee published its report in August 2009. Their report is available at: http://www.parliament.nz/en-NZ/PB/SC/Documents/Reports/f/4/f/49DBSCH_SCR4485_1-Review-of-the-Emissions-Trading-Scheme-and-related.htm

26 The ETS will cover all sectors and greenhouse gases.[17] Table 2.1 shows when sectors will begin to face obligations to surrender emission units under the ETS.

Table 2.1: Timetable for sectors entering the ETS

2008	2009	2010	2011	2012	2013	2014	2015
Forestry		Stationary energy			Waste		Agriculture[19]
		Liquid fossil fuels			Synthetic greenhouse gases		
		Industrial processes[18]					

27 The main features of the ETS are:

- businesses and individuals in the sectors identified in table 2.1 have an obligation to surrender eligible emission units to the Government equal to their greenhouse gas emissions (although note the temporary arrangement during the transition phase – see *Transition phase* section). Businesses and individuals that have mandatory obligations or have opted in to face obligations under the Act are known as participants in the ETS
- the primary emission units are the New Zealand Units (NZU), which are issued by the Government, although some international emission units can also be surrendered (see *Links with international carbon markets* section below)
- the obligations are placed as far up the supply chain as possible for administrative efficiency reasons
- owners of forest planted after 1989 can opt in to the ETS to earn NZUs as their forests grow, reflecting the carbon sequestered by the trees. Owners of forests planted before 1990 cannot earn units
- owners of forest planted before 1990 have to pay penalties if they deforest, and for forests planted after 1989, a participant has to surrender NZUs when the forest is harvested
- allocations of free NZUs are provided to certain sectors, either as compensation or to protect those activities most at risk of a loss of competitiveness. See *Allocation* section below
- participants in the ETS may meet their obligations by:
  - surrendering NZUs bought in the domestic market (eg, buying them from businesses and individuals that have been allocated or have earned NZUs)
  - surrendering eligible emission units bought in international carbon markets
  - surrendering NZUs allocated to them (for those businesses which received an allocation) or that they have earned or

[17] Carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF_6).

[18] This obligation falls on producers of iron or steel, aluminium, clinker or burnt lime, glass and gold.

[19] This obligation falls on agricultural processors, such as meat and dairy processors, rather than farmers.

- surrendering NZUs bought from the Government under the fixed-price option (see *Transition phase* section below)

- As with the tax system, businesses and individuals self-assess their obligations to surrender emission units. The Act provides powers to audit and there are significant penalties for non-compliance and fraud.

Transition phase

28 The ETS incorporates a transition phase from 1 July 2010 to 31 December 2012. During this phase:

- participants have the option to buy NZUs from the Government for a fixed price of $25 (ie, a price cap that limits the potential costs faced by emitters)[20]
- participants in the liquid fossil fuels, stationary energy and industrial processes sectors are required to surrender only one eligible emission unit for every two tonnes of emissions produced
- the export of NZUs from non-forestry sectors is not permitted (ie, they cannot be sold in international carbon markets).[21]

29 As a result of these features of the transition phase, participants do not yet face a full obligation and the economy does not face a full incentive to invest in emission reductions. Once the transition phase ends in 2012, participants will face a full obligation as the fixed-price option and one-for-two surrender obligation will cease to apply (as will the restriction on exporting NZUs).

Allocation

30 The Government allocates free NZUs under the ETS for two purposes. One is to provide compensation for the effect of the ETS on asset values in some sectors.[22] These sectors are fishing (to compensate fishing quota owners for a loss in quota values) and owners of forests planted before 1990 (to compensate forest owners for the loss in land values).

31 The second purpose is to prevent a loss of competitiveness and carbon leakage[23] due to the ETS. The sectors most at risk of competitiveness impacts are agriculture and certain industry activities. For agriculture, all activities facing obligations are eligible for allocation. This is because it is presumed in the legislation that they are emissions intensive and trade exposed. For industry, only those activities that meet the emissions intensity and trade-exposure criteria set out in the Act are eligible for allocation.[24]

32 Allocation for this second purpose is provided on an intensity basis which means allocation will vary depending on a participant's level of output. The agricultural sector

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20 The fixed-price option means the Government has to meet the cost of any difference between the international carbon price and the price cap in order to meet its international obligations.

21 This is because the fixed-price option could create arbitrage opportunities if international trading was permitted.

22 This compensation is a fixed amount but may be paid in a number of tranches.

23 Carbon leakage arises when domestic production (and hence the emissions associated with that production) shifts overseas as a result of a loss of domestic competitiveness.

24 For details of this criteria and the list of eligible industrial activities see: http://www.climatechange.govt.nz/emissions-trading-scheme/participating/industry/allocation/

will initially receive a level of assistance covering 90 per cent of an emissions baseline.[25] Eligible industrial activities will initially receive a level of assistance covering either 60 per cent or 90 per cent of an emissions baseline depending on whether the activity is moderately or highly emissions intensive.[26] Allocation to prevent a loss of competitiveness is transitional as the level of assistance will decline by 1.3 per cent per annum from 2013 for eligible industrial activities and from 2016 for agriculture.[27]

Links with international carbon markets

33 Under the Kyoto Protocol, countries with responsibility targets are allocated Assigned Amount Units (AAUs) equivalent to their target. They must 'retire' to the UNFCCC an amount of AAUs and/or other emission units eligible under the Kyoto Protocol that is equal to their actual emissions in the five-year period from 2008 to 2012.

34 The Kyoto Protocol creates a number of 'flexible mechanisms' to support countries in meeting their responsibility targets and incentivise over-achievement by allowing them to obtain and trade eligible Kyoto Protocol units. Other eligible units are removal units (RMUs), emission reduction units (ERUs) and certified emission reduction units (CERs). Under the Kyoto Protocol, countries earn RMUs by investing in emissions 'sinks', such as forestry.

35 These flexible mechanisms are:

- emissions trading, whereby countries can sell surplus AAUs or RMUs to countries that have a shortage
- project mechanisms, whereby countries can generate emission units by supporting projects in other countries. These are the Clean Development Mechanism (CDM), which generates CERs from projects in developing countries, and Joint Implementation, which generates ERUs from projects in other developed countries.

36 The ETS allows participants to buy international emission units and sell NZUs[28] in international markets. In addition, the ETS allows participants to surrender certain types of Kyoto Protocol emission units, namely RMUs, ERUs and some types of CERs, in order to meet their obligations.[29] This ensures that New Zealand's price reflects international prices and allows ETS participants greater flexibility as to how they meet their ETS obligations (eg, by buying cheaper abatement options from overseas). It also creates

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25 These emissions baselines have not yet been set but will be consulted on and established by regulation in 2014.

26 The Act sets out thresholds for moderately and highly emissions-intensive activities. If an industrial activity is equal to, or above, 800 tonnes of CO_2-equivalent per $1 million of revenue then it is moderately emissions intensive. If it is equal to, or above, 1600 tonnes of CO_2-equivalent per $1 million of revenue then it is highly emissions intensive.

27 In effect, this means allocations for eligible industrial activities will have reduced to 28 per cent, and agricultural allocations to 30 per cent, by 2100.

28 NZUs sold in international markets first must be converted into AAUs, although there is a restriction on non-forest sectors during the transition phase, see *Transition phase* section above.

29 The following types of Kyoto Protocol emission units are not eligible emission units under the ETS: temporary CERs (tCERS) and long-term CERs (lCERS) generated from CDM forestry projects, any CERs derived from nuclear power projects and AAUs. Note that the Government is able to purchase AAUs in the international market to meet its Kyoto Protocol obligations. The Act permits changes to the list of eligible international emission units under the ETS through regulations.

additional opportunities for those with units to sell by providing access to a larger international market.

3 Impacts of the ETS

37 In considering how the ETS should evolve after 2012, the Panel has been asked to consider:

- how the ETS is affecting New Zealand now
- how the ETS might affect New Zealand after 2012, based on current settings.

38 In this chapter, the short-term and long-term impacts of the ETS on the economy, household expenditure, business costs, equity, administrative efficiency, emissions and Māori are discussed.

Impacts for the period up to 2012

39 Reliable estimates of the current or short-term, first-order impacts of the ETS on prices and the economy are possible because the price movement of NZUs is relatively limited in the transition phase up to 31 December 2012. During this phase the price of NZUs is effectively capped at $12.50 per tonne of carbon dioxide-equivalent (CO_2-e). Such estimates are discussed below.

40 Estimates of the short-term, first-order price impacts of the ETS in these paragraphs are made based on the maximum NZU price of $12.50. The estimates would be lower if they were based on a lower NZU price. These estimates are likely to represent the upper limit of any impacts because the price of NZUs is likely to trade below the price cap.[30]

41 However, it is relatively difficult to obtain good estimates of the social and environmental impacts of the ETS to date. Such impacts have to be observed over an extended period of time, and the ETS has been in place for only a relatively short period.

Current impact on the economy

42 For the period up to 2012, the New Zealand economy is expected to continue to grow in the presence of the ETS, but the ETS is expected to reduce economic growth slightly (in comparison with the business-as-usual scenario).[31]

43 Since the stationary energy sector and the liquid fossil fuels sector entered into the ETS in July 2010, a key area where the ETS has affected the economy is through its effect on electricity and fuel prices. Prior to the introduction of the ETS, it was estimated that the ETS would cause electricity prices to increase by 1 cent per kWh, and petrol and diesel by about 3 cents per litre.[32]

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30 These estimates take into account the different ways the price of carbon is likely to be passed through in different markets, such as the electricity market.

31 NZIER/Infometrics (2009), *Economic modelling of New Zealand climate change policy*. See: http://climatechange.govt.nz/emissions-trading-scheme/building/reports/economic-modelling/economic-modelling-of-new-zealand-climate-change-policy.pdf

32 Ministry for the Environment estimates.

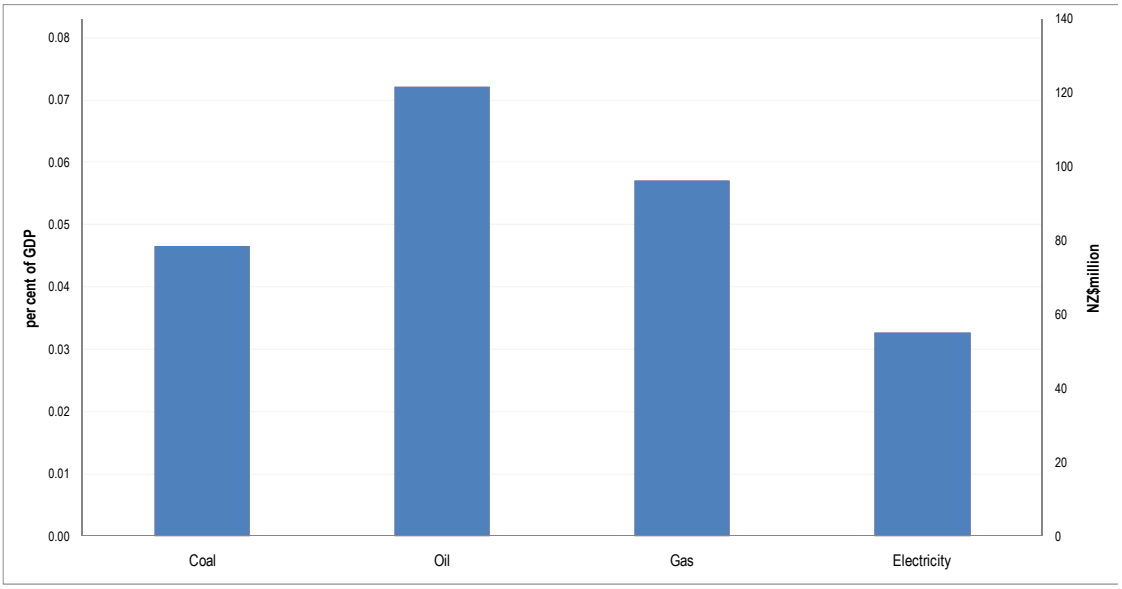
44 Beyond increases in electricity and fuel prices, there are also second-order price effects on other goods and services. These second-order price effects are difficult to estimate, but are likely to be smaller than the direct impact of the ETS on electricity and fuel prices. The degree of the second-order price effects is likely to depend on how easily companies can pass their energy cost increases to their customers. The extent of the pass-through varies from sector to sector, depending on a number of factors, such as the number of competitors.

45 The impact of the ETS on electricity and fuel prices affects both businesses and households. For most industries, a recent survey by the Ministry for Economic Development indicates that most businesses are likely to have adjusted prices to incorporate these increased costs.[33]

46 For the majority of New Zealand businesses, their energy costs are likely to be equivalent to about 1 per cent of their revenue.[34]

47 The impact of the ETS on electricity and fuel prices on total business expenditure as a percentage of GDP is shown in Figure 3.1 below. Aggregating these figures suggests that the overall impact is equivalent to about 0.2 per cent of GDP.

Figure 3.1: Effects of ETS on business expenditure on energy



Source: Ministry for the Environment

48 For many business sectors, the effect of the ETS on electricity and fuel prices to date is small relative to the cost of labour – ie, less than 1 per cent of these costs. The cost of

33 The Ministry of Economic Development will publish a report on the survey results on business responses to the introduction of the ETS shortly.

34 Ministry of Economic Development (2010), *Impacts of Emissions Pricing on New Zealand Manufacturing: A Short-Run Analysis*. See: http://www.med.govt.nz/templates/MultipageDocumentTOC 42025.aspx?&MSHiC=65001&L=0&W=Impacts+of+Emissions+Pricing++&Pre=%3cb%3e&Post=%3c%2fb%3e

labour itself increased by 2.1 per cent between the June 2009 and the June 2010 quarters.[35]

49 Besides facing increased fuel and electricity prices, some businesses have obligations to surrender emission units under the ETS. They will incur costs if they have to purchase units to satisfy their ETS obligations. These costs are not included in the estimates above.

50 It is expected that the domestic supply of units is likely to be nearly double the domestic demand for units between 2008 and 2012.[36] Domestic supply will be driven in particular by allocation to the forestry sector (which depends on uptake by owners of forests planted after 1989), while domestic demand is driven by obligations on ETS participants. The domestic oversupply of units between 2008 and 2012 may have a dampening impact on the NZU price, depending on a range of factors (such as whether foresters choose to export, bank or sell units).

51 The impact of the ETS on electricity and fuel prices has affected the agricultural sector, even though it does not have obligations to surrender units under the ETS until 2015. To date, costs to the agricultural sector are estimated to have been about $3300 per annum for an average dairy farmer and $1200 per annum for an average sheep and beef farmer.[37] These costs compare to estimated annual working expenses of approximately $494,000 for dairy farms and $180,000 for sheep and beef farms.[38]

52 As to the impact on households, the ETS is estimated to have increased national average household expenditure on fuel and electricity by $133 per year to date.[39] The effects of the ETS on household expenditure on various types of fuel and electricity are shown in figure 3.2 below.

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35 Statistics New Zealand (2010), Labour Cost Index: (All Labour Costs): June 2010 quarter. See: www.stats.govt.nz/browse_for_stats/economic_indicators/prices_indexes/LabourCostIndexAllLabourCosts_HOTPJun10qtr/Commentary.aspx

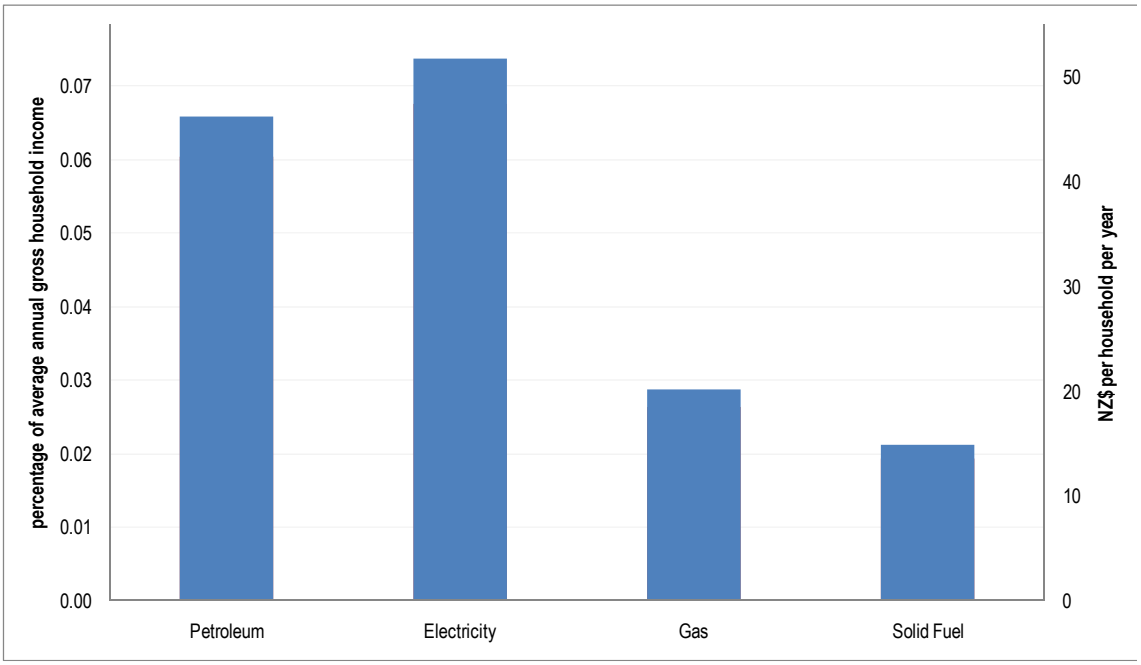
36 Estimates from the Ministry for the Environment and the Ministry of Agriculture and Forestry underpinning Treasury's financial forecasts.

37 Ministry for the Environment, (2010), *The New Zealand Emissions Trading Scheme – information for farmers and landowners*. See: http://climatechange.govt.nz/emissions-trading-scheme/about/what-it-means-for-me/brochure-farmers/index.html. These estimates are calculated by the Ministry of Agriculture and Forestry, based on expected increases in fuel and electricity prices from 1 July 2010 when the stationary energy and liquid fossil fuel sectors entered the ETS. The estimates are based on a carbon price of $12.50 per tonne.

38 Ministry of Agriculture and Forestry's estimates.

39 This estimate is based on the first-order price impact of the ETS, and data from the Household Economic Survey: Year ended June 2010. It was previously estimated that the ETS would increase the total cost for the average New Zealand household by $165 a year during the transitional phase up to 2012. That estimate was based on data from the Household Economic Survey: Year ended June 2004.

Figure 3.2: Effects of the ETS on average annual household expenditure on energy in 2010



Source: Ministry for the Environment

53 The impact of the ETS on electricity and fuel prices is expected to affect different household types to slightly different degrees. Based on the first-order price impact of the ETS, the Ministry for the Environment has estimated the distributional impacts of the ETS, and the results are:

- north versus south: the estimated effects of the ETS on household expenditure are similar for both the North Island and the South Island.[40] The increase in electricity expenditure is greater in the South Island, where there is a lack of reticulated gas, while in the North Island the biggest increase in expenditure is from increases in petroleum prices
- urban versus rural: the ETS is estimated to increase annual household expenditure in rural areas more than in urban areas by $26 per household. Expenditure on petroleum in rural areas is estimated to increase by $57 per household, whereas expenditure on petroleum in urban areas is expected to increase by $43 per household[41]
- income quintiles: the percentage increase in household expenditure as a result of the ETS is equivalent to 0.5 per cent of gross income for the lowest income quintile and equivalent to 0.1 per cent of gross income for the highest income quintile. However, beneficiaries and New Zealand superannuation recipients will be compensated for any increase in the price of goods through the indexation of the income they receive from the Government. In terms of absolute increase, the ETS is estimated to have a bigger effect on higher income households.[42]

40 These estimates are based on the first-order price impact of the ETS, and data from the Household Economic Survey: Year ended June 2010.

41 Ibid.

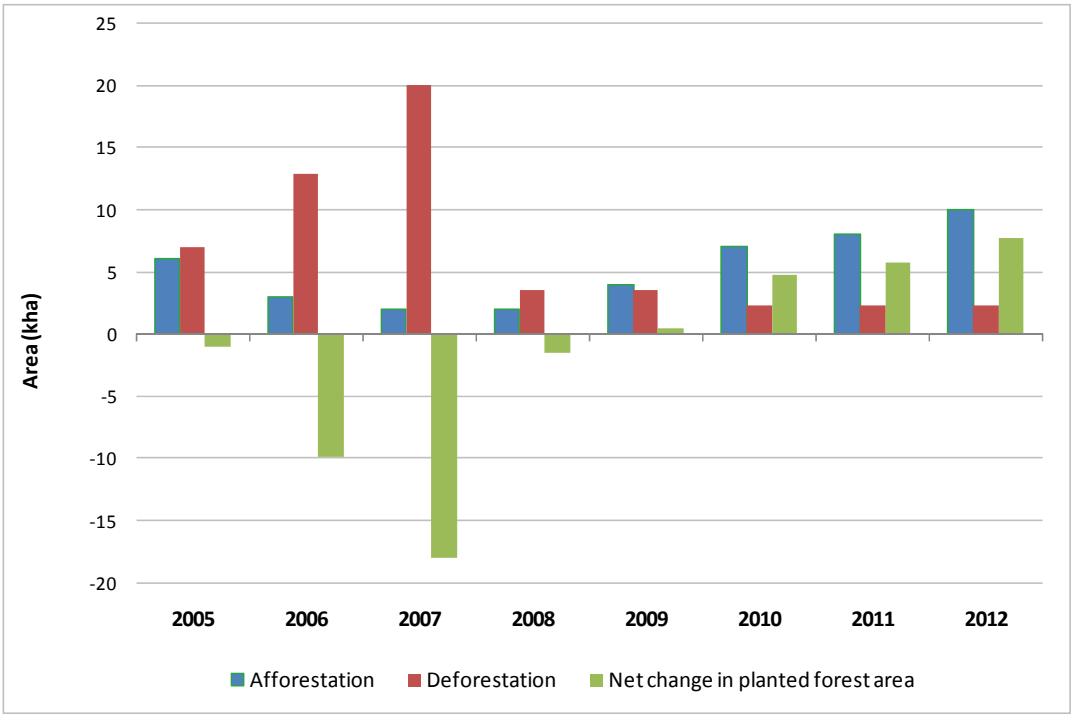
42 Ibid.

Current impact on reducing emissions

54 As the ETS has been implemented for a short time only, it is difficult to estimate its impact on reducing emissions so far. However, there are some signs the ETS may already be having a positive impact on emission-reducing activities. For example, nearly one in 10 owners of forests planted after 1989 indicate their intentions to actively consider converting additional land to forestry in the future (afforestation).[43]

55 The net change in planted forest area in New Zealand is projected to be positive from 2010 to 2012 (see figure 3.3). However, because of the forestry harvesting cycle, it is too early to say whether the emissions reduction associated with this net afforestation will be permanent.

Figure 3.3: Estimated annual net change in planted forest area in New Zealand 2005 to 2012



Note: The 2005–2008 figures shown in the graph above are actual figures. The 2009 figures are provisional, while the 2010–2012 figures are projected. Source: Ministry of Agriculture and Forestry and Ministry for the Environment.

Administration and compliance costs

56 The ETS places compliance costs on businesses that have obligations, on voluntary participants, and on businesses receiving allocations. Monitoring the activities that give rise to emissions or lead to sequestration, in preparation for emission reporting and for allocations, is the most significant administrative cost. Such costs are driven by the complexity of the activities and would be part of any emission reporting actions, whether mandatory or voluntary.

[43] Source: Ministry of Agriculture and Forestry (2010) *Emissions Trading Scheme and Future Afforestation Intentions Report: 10 May 2010*; see http://www.maf.govt.nz/news-resources/publications?keywords=ETSF&dnn_ctr4418_PublicationsSearch_searchResultsRadGridChangePage=2

57 In terms of transaction costs associated with emissions trading, the New Zealand Emission Unit Registry does not charge any fee for ETS registration, opening a holding account for emission units or transferring units. Therefore, ETS participants are not expected to face significant transaction costs in buying and selling emission units, especially if they do not enter into transactions through brokers. However, the act of participating in the ETS, and the decision-making involved in buying and selling units, is likely to be complex.

58 Currently, the administration of the ETS is split across agencies (the Ministry for the Environment, the Ministry of Agriculture and Forestry and the Ministry of Economic Development). This is expected to change towards the end of 2011 when the Environmental Protection Authority takes on a number of administrative functions related to the ETS,[44] including the Registry, emissions returns and allocations to industry and agriculture.

59 The Ministry of Agriculture and Forestry charges administration fees to owners of forests planted after 1989 who choose to join the ETS. These fees are for registering their forests and submitting their emissions returns.[45]

Consultation questions

Q1 Do you agree/disagree with the Panel's assessment of the current impact of the ETS? If not, why not?

Q2 What impacts of the ETS have you experienced to date?

In your response we would be interested in:

a. financial impacts you have experienced and how you have managed these (eg, passed them on to consumers)

b. how significant the impact of the ETS has been relative to other changes, such as GST increase, consumer demand changes and oil price increases

c. whether the ETS has yet influenced your investment decisions (eg, on low-carbon technologies, and land development)

d. whether the ETS has yet influenced your operating decisions (eg, input sourcing, supply chain, choice of energy supply)

e. other impacts of the ETS (eg, social, environmental).

[44] However, it is expected that the Ministry for Agriculture and Forestry will continue to carry out these functions for forestry.

[45] A list of administration fees is available in the Ministry of Agriculture and Forestry's publication, *A Guide to Forestry in the Emissions Trading Scheme*. See: http://www.maf.govt.nz/news-resources/publications.aspx?title=Guide%20to%20Forestry%20in%20the%20Emissions%20Trading%20Scheme

Q3 What are your views on the administrative efficiency of the ETS?

In your response we would be interested in comments on:

a. compliance costs associated with the ETS (including brokerage fees)

b. complexities of ETS reporting requirements (such as accounting methodologies)

c. penalties for breaching ETS obligations

d. the organisation of this administration across government, including the role of the Environmental Protection Authority.

Potential impacts after 2012

60 It is difficult to estimate accurately the magnitude of the impact of the ETS on the economy and emissions after 2012 because of:

- significant uncertainties in the price of emission units (given that under the current legislation the price cap on NZUs will expire at the end of 2012), which will be determined by a range of factors such as the outcomes of international climate change negotiations
- uncertainties as to how businesses and households will change their behaviour in response to carbon prices
- the natural lag between when an incentive or obligation arrives and the full response — ie, businesses upgrade to more energy-efficient equipment when the economic life of the old equipment ends.

61 In the Panel's view, the impact of the ETS is likely to be more significant in the post-2012 period than in the period up to 2012. This is because:

- under the current legislation, the transition phase,[46] which mitigates the costs associated with ETS obligations, will end on 31 December 2012
- under the ETS as currently legislated, more sectors (such as agriculture and the waste sector) will assume obligations to surrender emission units after 2012
- many countries are advocating conditional emission reduction targets, which could see an increase over time in the international price of emission units.

[46] Under the current transitional period, due to end on 31 December 2012, a fixed price option of $25 per unit is available, and only 1 unit needs to be surrendered in respect of each 2 tonnes of emissions.

Potential long-term impacts on the economy

62 For the period up to 2025, the New Zealand economy is expected to continue to grow in the presence of the ETS, but the ETS is expected to reduce economic growth slightly (in comparison with the business-as-usual scenario).[47] Based on the modelling results from a study by NZIER and Infometrics,[48] it is estimated that:

- the ETS will reduce real gross national disposable income (RGNDI) by 0.9–1.1 per cent[49] in the period up to 2025 if the carbon price is $25 per tonne
- the ETS will reduce RGNDI by 3.0–3.5 per cent[50] in the period up to 2025 if the carbon price is $100 per tonne.

Consultation question

Q4 In your opinion, are the modelling results in paragraph 62 likely to reflect the actual macroeconomic impacts of the ETS? If not, in your opinion, how will the ETS affect New Zealand in overall economic terms?

63 If agriculture enters the ETS from 2015 as scheduled, the Ministry of Agriculture and Forestry has estimated that, in 2015, the ETS will lead to cost increases (in addition to those already incurred as part of the general economy) of approximately:

- $10,000 per annum for the average dairy farmer
- $5500 per annum for the average sheep and beef farmer.[51]

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47 NZIER/Infometrics (2009), *Economic modelling of New Zealand climate change policy*. See: http://climatechange.govt.nz/emissions-trading-scheme/building/reports/economic-modelling/economic-modelling-of-new-zealand-climate-change-policy.pdf. In this study, the impacts of the ETS were modelled, based on the assumption that the ETS is in its original form, ie, it has not been amended by the Climate Change Response (Moderated Emissions Trading) Amendment Act 2009. However, it is expected the modelling results would be similar if the modelling work was based on the assumption that the ETS is in its current form, as amended by the 2009 amendment Act.

48 Ibid.

49 Infometrics estimated a 0.9 per cent reduction, while NZIER estimated a 1.1 per cent reduction. These estimates are based on the assumption that all sectors will be covered by the ETS, but allocation is not available. The impact of allocation is estimated to be small at the carbon price of $25 per tonne.

50 Infometrics estimated a 3.0 per cent reduction, while NZIER estimated a 3.5 per cent reduction. These estimates are based on the assumption that all sectors will be covered by the ETS, but allocation is not available.

51 These estimates are calculated by the Ministry of Agriculture and Forestry, and have not been published previously. They are based on expected increases in fuel, electricity, transport and processing costs, and on processors passing the liability they face straight back to farmers. These estimates are based on a carbon price of $25 per tonne, a 90 per cent allocation and a 2015 baseline for allocation for agricultural emissions and full liabilities for all other sectors. Under $50 per tonne, these costs are estimated to be $20,000 per annum for the average dairy farmer and $11,000 per annum for the average sheep and beef farmer.

64 To put these costs into perspective, the annual working expenses are estimated to currently be approximately $494,000 for dairy farms and $180,000 for sheep and beef farms.[52] It is expected that the cost impact of the ETS on the agricultural sector will increase gradually from 2016, as agricultural allocation will be phased out at 1.3 per cent per annum from 2016.

65 The impact of the ETS on costs for the waste and the synthetic gases sectors will be relatively small. The Ministry for the Environment expects when these two sectors enter the ETS in 2013, they will be able to pass on most of their ETS-related costs to consumers. The Ministry for the Environment estimates that, if the carbon price is $25 per tonne, the entry of these two sectors into the ETS will lead to price increases of approximately:

- $27.50 for processing one tonne of waste
- $22.75 per imported car
- $4.25 per domestic fridge.

Potential long-term impact on emissions

66 The ETS is expected to lead to a significant decrease in emissions in New Zealand in the long term. Figure 3.4 below compares the projected net emissions[53] in New Zealand in two scenarios:

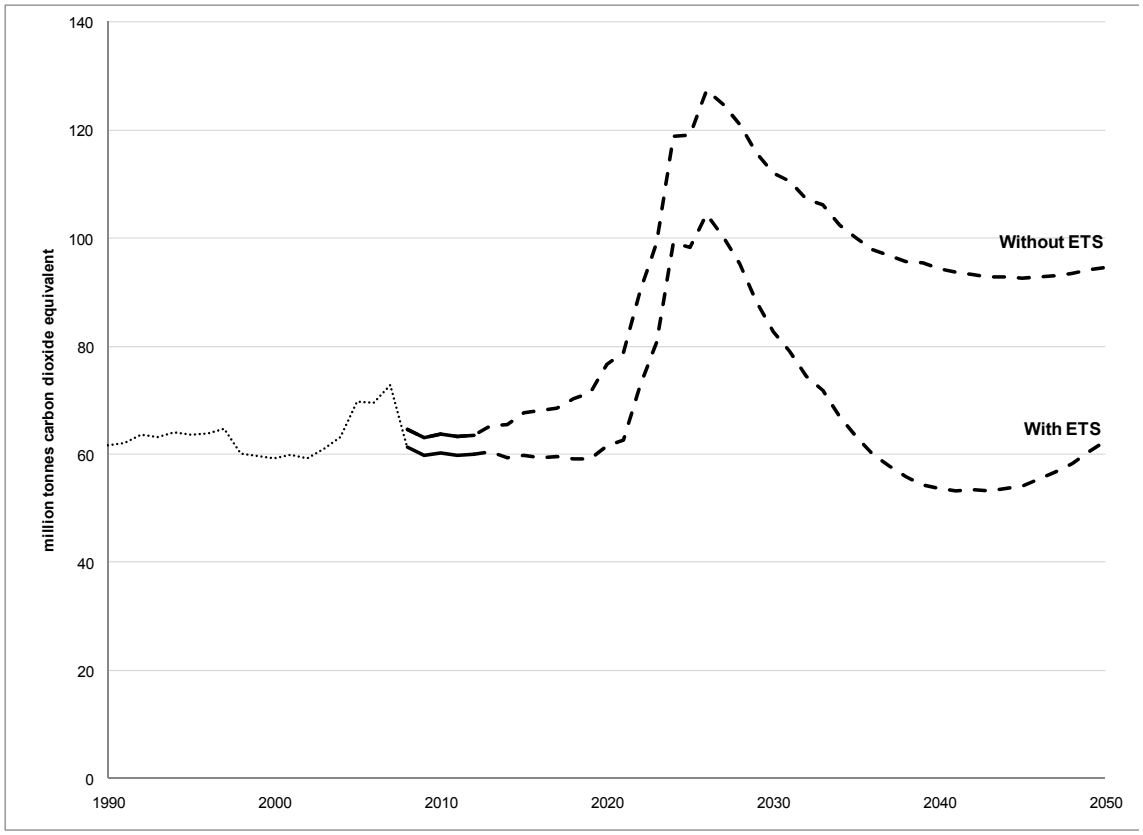
- a scenario where there is no ETS
- a scenario where the ETS is in place and the carbon price is $25 per tonne to 2013 and $50 per tonne to 2050.[54]

52 These are the Ministry of Agriculture and Forestry's estimates, which have not been published before.

53 Net emissions are New Zealand's gross emissions minus removals from the Land Use, Land-use Change and Forestry (LULUCF) sector.

54 Projections for this scenario are based on the assumptions that: a) economic growth is based on the Treasury's long-term fiscal modelling; b) New Zealand's population reaches 5.5 million by 2050; c) oil prices reach US$129 per barrel by 2030 (International Energy Agency's World Energy Outlook mid-case scenario); and d) historical energy efficiency improvement and consumer behaviour continues, but no step change in technology or consumer behaviour has been anticipated.

Figure 3.4: Projections of emissions in New Zealand for the period up to 2050[55]



Source: Ministry for the Environment[56]

67 Projections of emissions in New Zealand are influenced by the modelling assumptions for forestry, which are:

- the current low levels of afforestation (2000–3000 hectares per year) will increase to 30,000 hectares per year by 2020
- increased rates of afforestation going forward will reduce harvesting emissions of post-1989 forests during the 2020s and also generate increased levels of removals between 2030 and 2050
- the deforestation rates are low
- the areas of forests planted during the 1990s will begin to reach maturity (approximately 28 years for *pinus radiata*) around 2020
- all areas of forests planted during the 1990s will be harvested in the future.[57] The actual timing of harvesting will depend on log prices, carbon revenue received by forest owners, harvesting and transport (including sea freight) costs

55 Accounting for emissions in figure 3.4 uses Kyoto-style accounting rules from 1990 through to 2050. However, Kyoto accounting strictly only applies for the period 2008–2012. Figures for other years (eg, 1990) are estimated as if the same rules applied for analytic purposes. The figure is a back-projection, used as the basis for indicative emissions trends from 1990 to 2050.

56 Figure 3.4 has been prepared by the Ministry for the Environment for internal purposes.

57 Although the Panel understands there is considerable interest in planting permanent protection forest for erodible hill country.

- under current Kyoto Protocol rules, New Zealand only has to account for carbon stock changes in land-use change (afforestation, reforestation and deforestation) since 1990 for the first commitment period (Article 3.3). It is assumed these rules will continue after 2012 to 2050. Changes to the international rules will materially affect these projections
- these projections cover only planted forests and associated changes such as soil carbon changes due to afforestation and deforestation. The bulk of the land-use change that has occurred since 1990 is in the planted forest category
- the forests planted after 1989 continue to remove carbon dioxide into the early 2020s. The levels of removal start to decrease from about 2018 as these forests start to be harvested. Between 2020 and 2024 these forests are expected to become a significant source of emissions, with a peak of between more than 20 million tonnes of CO_2-e.

68 Net emissions in New Zealand (assuming a Kyoto Protocol style of accounting for forestry removals after 2012) are projected to peak around the mid-2020s as forests planted after 1989 are harvested.[58]

Consultation questions

Q5 Do you agree/disagree with the Panel's assessment of the impact of the ETS after 2012? If not, why not?

Q6 What impacts do you expect to experience after 2012 (given the current design settings of the ETS)?

In your response we would be interested in:

a. how impacts will change once the transitional phase ends

b. whether any significant business risks are created by uncertain carbon prices, and if so, how these risks could be mitigated

c. any competitiveness risks and therefore risks of carbon leakage

d. any business opportunities and benefits that may arise

e. how you expect abatement technologies to develop by 2015 and beyond

f. comparison between carbon prices and abatement costs

g. how you expect the ETS to affect New Zealand socially and environmentally in the long term.

Q7 As forestry is New Zealand's largest source of carbon credits and has a significant influence on emission reductions in New Zealand, do you think the ETS provides enough incentive for forestry investments? If not, why not?

[58] The Ministry for the Environment's estimate is based on the assumption of a 28-year forest rotation.

Impact on Māori economy and society

69 It is important to note that Māori interests and exposures are not homogenous and vary regionally, depending especially on the composition of asset interests. Further, it is not uncommon for iwi/Māori to have concurrent interest in a range of sectors ie, indigenous and exotic forests (pre-1990 and post-1989), agriculture, fishing and increasingly energy (geothermal). Accordingly, iwi/Māori interest will be in policies specific to these sectors and in the interaction between these policies.

70 Māori/iwi interests are currently concentrated in the primary industries of agriculture, forestry and fishing for their prosperity. Primary industries account for 50 per cent of Māori commercial assets, compared to 11 per cent of assets for the New Zealand business sector overall. Māori have significant ownership and management interests in large areas of pastoral farmland, and exotic and indigenous forests.

71 The impacts of the ETS on the agricultural and forestry sectors, as discussed above, are therefore particularly important for Māori in the short to medium term, when Māori and iwi will have a keen interest in maintaining and/or minimising market competitiveness against key international trading countries. This will raise both costs (risks) and opportunities.

72 There are significant economic opportunities for Māori-owned forestry under the ETS in terms of the potential to earn emission units for carbon sequestration on land afforested after 1989, including from Treaty settlements involving Crown Forest Licence land. On the other hand, Māori will face costs from deforestation liabilities – which will be disproportionately large relative to non-Māori forest owners – and from agricultural emissions – which will affect land development options and impact on the value of Māori-owned assets.

73 Māori owners of forests planted before 1990, especially those owners of smaller, multiply-owned blocks without governance structures, face greater challenges in making decisions about whether or not to apply for an exemption from the deforestation liabilities, or an allocation of NZUs. This is because of the unique features of Māori land under Te Ture Whenua Māori Act, which make it difficult to contact all owners in order to make decisions about their land blocks.

74 Socially and culturally, Maori/iwi may be more impacted at the whanau (household) level relative to non-Maori, as these households may be more likely to lack the resources to respond to the cost increases resulting from the ETS, especially in the short term.

75 In the longer term, Māori interests are expected to extend into a wider set of economic sectors, including the energy sector. For example, Māori interest in the geothermal energy production sector is growing.

76 In summary, Māori /iwi will have a keen interest in the economic impacts of the ETS at a sector level and in developing durable long-term solutions that preserve and promote Māori communities, the environment and Māori culture. The challenge for the ETS will be to consider in its design an appropriate balance between short-term economic interests and longer-term sustainable interests for Maori/iwi and indeed all New Zealanders.

Consultation questions

Q8 Do you agree with the Panel's assessment of the impacts of the ETS on Māori? If not, why not?

Q9 In your opinion, what impacts of the ETS have Māori experienced to date?

Q10 In your opinion, how will the ETS affect Māori in the longer term?

4 Key issues for the ETS after 2012

77 The Panel's terms of reference state that 'the review is an opportunity to assess the operation and effectiveness of the NZ ETS including how the NZ ETS should evolve beyond 2012 in the context of uncertainty over the outcome of international climate change negotiations and domestic action by key trading partners'.

78 Chapter 1 sets out the issues the Panel must consider under the Act and those it has been asked to give particular attention to under its terms of reference. Chapter 1 also sets out the considerations it has to give particular attention to when considering these issues.

Future international framework after 2012

79 New Zealand will continue to face its general obligations under the UNFCCC after 2012 (see Chapter 2). The current commitments under the Kyoto Protocol end in 2012. It is currently uncertain when new binding commitments will be taken and whether these will be under the Kyoto Protocol or some other international agreement.[59] The Panel considers it is likely there will be a gap between the current commitments ending and new commitments starting. New Zealand is actively participating in international negotiations to reach agreement on new commitments and the rules that underpin them.

80 As noted in Chapter 2, the international framework established under the Kyoto Protocol has underpinned the current objectives and design of the ETS. This uncertainty creates challenges for decision-making on the future objectives and design of the ETS.

81 It is unlikely there will be greater certainty by the time the Panel reports. However, the Panel considers there are three broad ways in which the international framework *could* evolve in the near term:

- a new legally-binding multilateral framework, similar to the current Kyoto Protocol, with legally-binding commitments to reduce emissions, underpinned by relatively strong multilateral rules and institutions
- a new political multilateral accord, building on the Copenhagen Accord and Cancun Agreements, under which countries make voluntary political commitments, supported by at least some multilateral rules and institutions, but without legal force
- no multilateral framework or accord in the near term. No successor to the Kyoto Protocol emerges and no further commitments are made under the Protocol. Countries continue to meet and negotiate with the aim of moving towards one of the frameworks set out above. However, in the interim, action is mainly driven at a national level or through other international links.

82 Table 4.1 below sets out some of the key parameters underpinning these three scenarios in more detail. It is important to note these scenarios are illustrative only and are designed to capture a range of potential outcomes.

[59] For example, it is possible that any new international commitments are taken under the general obligations of the UNFCCC, rather than under a subsidiary agreement like the Kyoto Protocol.

Table 4.1: Possible international framework scenarios: 2012 to 2020

Parameter	Scenario		
	1. Legally binding multilateral framework	**2. International political accord**	**3. Medium-term uncertainty**
Role of multilateral institutions	Countries sign up to comprehensive multilateral framework. Obligations under UNFCCC continue.	Countries adopt decisions supported by multilateral framework. Obligations under UNFCCC continue.	No formal role, but continuing multilateral forum for discussion. Obligations under UNFCCC continue.
Nature of targets	Legally binding international commitments.	Political commitments at international level but not legally binding.	No specific legally binding or political international commitments beyond general UNFCCC obligations.
Monitoring, reporting and verification	Detailed common accounting rules. Reporting and verification at multilateral level.	A mix of common and nationally-determined accounting rules. A level of reporting and verification at multilateral level which is at least equivalent to UNFCCC general obligations.	A mix of common and nationally-determined accounting rules. Reporting and verification at multilateral level for developed countries, under UNFCCC general obligations.
International carbon markets	Continuation of existing and development of new multilateral trading mechanisms supplemented by trading between domestic, bilateral and regional schemes.	Continuation of existing multilateral trading mechanisms and possible new mechanisms. Trading between domestic, bilateral and regional schemes. Potentially no international emission units available.	Continuation of existing multilateral trading mechanisms. Trading between domestic, bilateral and regional schemes. Potentially no international emission units available.
Timescales	Unlikely that a new legally binding agreement could enter into force by 2013 but agreement could be reached.	In place by 2013; possible transition to scenario 1 in longer term.	Potential situation after 2012; possible transition to scenarios 1 or 2 in longer term.

Consultation question

Q11 Do the scenarios in Table 4.1 capture the most likely outcomes for the international framework after 2012? If not, what other scenario(s) do you suggest the Panel should consider?

Implications for the ETS

Objectives and ambition level

83 An important starting point for the Panel is to consider how New Zealand's objectives for the ETS might change under the different international scenarios set out above.

84 Whilst New Zealand may wish to take action regardless of the international obligation it faces, the scale of that obligation is an important context for choices around the ambition level of the ETS in the short term. In particular, it is relevant to decisions on whether the ETS should scale up to a full obligation after 2012, and on when new sectors should incur obligations.

85 If New Zealand's international obligation continues to be framed by a multilateral political accord, or is governed by a new legally binding multilateral framework, then New Zealand is likely to face a cost in the medium term. The extent of any cost will depend on the extent to which the New Zealand economy has transitioned towards a low-carbon economy given the incentives created by the ETS. If it creates a cost then the choice is how to distribute this cost equitably and efficiently throughout the economy (eg, between taxpayers and emitters, between sectors, and so on).

86 If no international agreement is reached in the short term, New Zealand may face a period of uncertainty or 'gap' following the end of the Kyoto Protocol commitments in 2012. In that situation, the Government would need to consider how much cost it is prepared for the New Zealand economy to bear until the uncertainty abates.

87 Chapter 3 discusses the costs which sectors might face if the ETS continued to be implemented under its current design settings.

88 In judging what to do in a situation of uncertainty, the Government would need to consider the short-term costs (and the competitiveness risks that flow from these costs), long-term economic resilience, and the potentially higher cost of delayed action to reduce emissions if commitments take effect at a later date.

89 This long-term perspective is important because, regardless of the direction the international framework takes in the short term, it is reasonable to assume that New Zealand will face strong obligations and drivers to reduce emissions in the longer term. If an agreed global goal to limit the rise in temperature reflects the current scientific consensus, it is also reasonable to assume that the emission reductions New Zealand will be required to make are at least in the order of the Government's proposed domestic target to reduce emissions by 50 per cent by 2050.

90 The role of the ETS in preparing the economy for the long-term transition implied by these strong obligations and drivers is an important question for the Panel. Chapter 3 shows how the ETS as currently designed is expected to reduce New Zealand's long-term emissions.

Other design settings

91 As the current ETS was designed with New Zealand's international obligations under the Kyoto Protocol in mind, a period of uncertainty also creates complex choices for other

key ETS design settings. Currently, the ETS mirrors international rules in its accounting rules, the units eligible for use in the scheme and the scheme 'cap'.

92 In particular, as noted in Chapter 2, it is intended the ETS will be fully open to international carbon markets established under the Kyoto Protocol. This means ETS participants will be able to buy or sell emission units in international markets, which means New Zealand prices will closely reflect international prices. This will act as a measure of price control given the small size of New Zealand's carbon market.

93 Whether the international carbon markets established under the Kyoto Protocol remain accessible beyond 2012 depends on the nature of the international framework. It is possible that the CDM, created under the Kyoto Protocol (see Chapter 2), will continue even if there is a gap after the Kyoto Protocol ends in 2012, although this is not certain. If the CDM continues, then international emission units will continue to be available at an international price. In a continuing period of uncertainty, progress may depend increasingly on linking between domestic schemes. In such circumstances, New Zealand would face the choice to continue to seek access to international markets, or focus on maintaining a domestic market only, possibly with other forms of price control.

Consultation questions

Q12 How might the objective(s) of the ETS change under each of these scenarios? In particular:

a. what do the different scenarios imply about the costs New Zealand should be imposing on its economy through the ETS in the short term?

b. what considerations should influence how the costs of any international obligation New Zealand faces should be shared between different sectors, such as the split between emitters and taxpayers and the relative abilities of different sectors to reduce emissions?

c. what is the role of the ETS in preparing New Zealand for the international obligations and other drivers for action it may face in the long term?

d. should the ETS design be changed in order to strengthen the incentives for domestic abatement? If so, how?

e. how important is continuing access to international carbon markets?

f. how do you see domestic and international carbon markets developing beyond 2012?

Q13 Under what conditions should the ETS scale up to a full obligation? In particular:

a. should the fixed price option of $25 continue beyond the current transition phase (ie, after 2012)?

b. should the one-for-two obligation continue beyond the current transition phase?

Action taken by key competitors

94 Other countries are facing the same uncertainty as New Zealand about their short-term international obligations. The actions they are likely to take will also impact on any competitiveness risks that New Zealand is likely to face. New Zealand's key competitors will vary by sector.

95 Table 4.2 below sets out a high-level summary of the mitigation measures that our main key competitors, based on New Zealand's main export markets,[60] are implementing. Most plan mitigation measures after 2012 regardless of the international outcome. However, the relative ambition and cost impact of these measures is unclear to the Panel.

96 Like New Zealand, the 27 EU Member States and some US states have implemented emissions trading schemes. Other countries, such as Japan, China and Korea, are considering introducing such schemes.

97 Australia announced on 24 February 2011 that it will introduce a carbon price from 1 July 2012.[61] A carbon pricing mechanism will be introduced in two stages, starting with an annually-increasing, fixed-price period for three to five years before transitioning to an emissions trading scheme. The transition to such a scheme, linked to international carbon markets, is expected to occur unless there are reasons to extend the fixed-price period.

98 The starting level of the fixed price, industry and household assistance, and any phasing in of sectors has yet to be determined. However, it is proposed to apply the carbon price to all six Kyoto gases, and that it will cover the electricity, stationary energy, transport, industrial processes, waste and fugitive emission sectors. Agriculture and forestry will not be included initially, but will be covered by the proposed Carbon Farming Initiative, a carbon offsets scheme.

[60] It is likely that different countries will be key competitors for different sectors, eg, the agricultural sector is likely to face different competitors to the industrial sector. It is also likely to differ within sectors, ie, between different products.

[61] See: http://www.climatechange.gov.au/en/minister/greg-combet/2011/media-releases/February/mr20110224.aspx

Table 4.2: Mitigation measures taken and planned by our main export markets[62]

Country	Mitigation measures
Australia	• Australia has announced it will introduce a fixed-price carbon pricing mechanism from 1 July 2012, transitioning to a fully-flexible ETS linked to international carbon markets in 3–5 years' time. The initial carbon price will apply to the electricity, stationary energy, transport, industrial processes, waste and fugitive emission sectors, and cover all six Kyoto gases. The initial carbon price, industry assistance and the phasing in of sectors have yet to be determined. • Emission reduction policies include a mix of voluntary and mandatory measures, including a compulsory national renewable energy target of 20 per cent by 2020, minimum energy performance standards and a product energy efficiency labelling programme. • At a state level, the NSW and ACT Greenhouse Gas Abatement Scheme has been operational since 2003. The NSW Energy Savings Scheme requires electricity retailers to meet annual energy savings targets by investing in projects that generate energy savings certificates, while the Victoria State Energy Efficiency Target Scheme creates an annual target for renewable energy generation and aims to achieve 2.7 million tonnes of CO_2-e reductions per annum from 2009–11.
China	• The government has committed to developing a nationwide domestic carbon trading programme by 2015. • A range of national abatement measures are aimed at achieving the national target of reducing energy intensity by 20 per cent below 2005 levels by 2010, or by 4 per cent per year, including the retiring of inefficient industrial plants, fuel economy standards and renewable energy incentives, and national building energy efficiency standards. • Other abatement actions include minimum energy efficiency policies for industrial production, rising environmental entry standards for new energy and pollution-intensive industries and regulations on the disposal of industrial waste.[63]
European Union	• EU ETS in operation since 2005, with expanded coverage to start in 2013. • Measures include mandatory minimum energy taxes for fuel and electricity, mandatory renewable energy targets which require the share of renewables in the total energy mix to increase to 20 per cent and for a 20 per cent increase in efficiency of energy consumption by 2020; with a mandatory minimum target of 10 per cent of renewable transport fuel. • Some member countries also have explicit environmental taxes in addition to European minimum energy tax requirements.
Japan	• Japan has a voluntary national ETS and has indicated its intention to pursue a mandatory national emissions trading scheme from 2013. It is currently consulting on key design elements. • Other Japanese emissions reduction initiatives include energy and fuel efficient measures in manufacturing, waste reduction measures; and the promotion of public transport and alternative energy generation. • Policies relevant to commercial industries include energy reduction measures in small and medium industrial enterprises and minimum efficiency standards for buildings. Japan has also established an energy efficiency standards programme for electrical appliances, lighting, air-conditioning, water heating, vehicles and fuel economy.

62 Main export markets for 2009, reported by Statistics NZ.

63 China's Policies and Actions for Addressing Climate Change: Information Office of the State Council of the People's Republic of China, p. 19ff.

Country	Mitigation measures
Republic of Korea	• The government has launched a draft ETS proposal, with plans to introduce a scheme in 2013. The proposed scheme is to set mandatory emissions reduction targets for the 600 largest emitters, equivalent to 70 per cent of the country's carbon emissions. • National measures include energy efficiency policies, waste minimisation measures, minimum regulatory standards for energy efficiency in buildings, tax credits for using renewable energy sources and controls on deforestation and replantation of harvested forests. • Measures to reduce emissions by business include minimum regulatory standards for energy efficiency in buildings, tax credits for using renewable energy sources and controls on deforestation and replantation of harvested forests. • A mandatory energy audit programme applies to large energy-intensive companies emitting more than 2000 tonnes CO_2 per year.
Singapore	• Singapore has signalled support for carbon pricing conditional on an international climate agreement. • All industries in Singapore face minimum energy efficiency standards on their total power used, their buildings and the equipment used in the manufacturing process. [64] • Other national policies include the E^2 Singapore national plan to promote energy efficiency, minimum energy efficiency standards for industry, traffic congestion charges and tax incentives to encourage carbon trading.
United Kingdom	• The UK is covered by the EU ETS, covering large private and public-sector energy users. • Climate change abatement and energy efficiency policies include the UK Climate Change Levy, which is a tax on electricity, gas, solid fuel and liquefied gas consumption by large businesses and public-sector organisations, and which can be significantly reduced if certain energy consumption targets are reached. • Industry is required to source a percentage of energy from renewable sources.[65]
United States	• The US does not have a federal ETS, however the Environmental Protection Agency is developing plans to regulate greenhouse gas emissions from July 2011 under the Clean Air Act. • National mandatory requirements on commercial industries include energy efficiency standards for major commercial equipment under federal regulations; building energy codes; fuel economy standards; waste regulations; federal legislation to require the production of renewables-based electricity; and energy efficiency measures including funding and incentives. • Other measures include setting standards and labelling requirements for energy efficiency in appliances, buildings and vehicles; and a national vehicle fuel economy standard of 35 miles per gallon by 2020. • Significant state-level policies include stringent emissions reduction targets. • A cap and trade scheme is being developed in the State of California; the Regional Greenhouse Gas Initiative, covering north-eastern states of America and Canadian territories, is a regional cap and trade scheme for carbon dioxide emissions from power plants; and the Western Climate Initiative, covering western states of America and Canadian territories, aims to develop mechanisms, including offsetting arrangements, to reduce emissions.

64 *Singapore's Second National Communication under the United Nations Framework Convention on Climate Change*, November 2010, p.36 ff.

65 *5NC: The UK's Fifth National Communication under the United Nations Framework Convention on Climate Change*, 2009, p.141 ff.

Sectoral considerations

99 As well as the general context created by the international framework and actions by key competitors, the Panel will need to consider the specific issues facing these sectors due to incur obligations under the ETS after 2012.

100 The **agricultural** sector faces a specific challenge arising from limited abatement opportunities in the short term. Research through forums such as the Global Alliance on Agricultural Greenhouse Gas Research may provide further options in the longer term.[66]

101 Generally, other developed countries have chosen not to apply stringent mitigation measures to the agricultural sector. No doubt this reflects the fact that agriculture is a much smaller percentage of their emissions than it is for New Zealand. However, other countries have taken measures to address other issues in this sector, such as controls on nitrogen use to address water quality concerns, which indirectly impact on greenhouse gas emissions. In addition, these countries have focussed measures on those sectors that are their key emitters, such as electricity generation.

102 Decisions around whether obligations for the agricultural sector should be deferred beyond 2015 will be influenced by the considerations listed above.

103 Under its terms of reference, the Panel is asked to consider whether **synthetic greenhouse gases (SGG)** should be included in the ETS at all, taking account of alternative approaches to reducing such emissions. Chapter 5 considers alternative policy approaches for the synthetic greenhouse gases sector to reduce its emissions.

104 There are a number of abatement opportunities available to the **waste** sector and the sector is already planning on the basis of it entering the ETS and facing surrender obligations from 2013. However, as discussed in Chapter 3, the ETS will impose costs on this sector and on users of waste disposal sites.

Consultation questions

Q14 To what extent, if any, should abatement options be relevant in determining the extent of a sector's participation in the ETS?

Q15 Under what conditions should new sectors enter the scheme and incur surrender obligations?

Allocation

105 Under the current ETS design, allocation of NZUs is the primary means by which the sectors most heavily affected by the ETS (ie, those that are both trade exposed and emissions intensive) are protected. It is therefore directly relevant to the question of how to manage the competitiveness impacts of the ETS in a more uncertain international context.

[66] The New Zealand Agricultural Greenhouse Gas Research Centre recently opened the New Zealand Ruminant Methane Research Centre. This will enable scientists to accurately measure methane emissions from ruminant animals. For more information see: http://www.nzagrc.co.nz

106 Chapter 2 explains the current allocation design settings in the ETS. Under the Act, the Panel is specifically required to consider whether changes to these settings are necessary or desirable having regard to the matters set out in the Act, such as the wider international context and the cost of allocation.[67]

Consultation question

Q16 Should allocation of NZUs continue as planned under current design settings after 2012?

In your response we would be particularly interested in:

a. the effectiveness of allocation in reducing competitiveness risks

b. the impact of allocation on incentives to reduce emissions

c. whether the allocation thresholds should be amended

d. whether the process to determine allocative baselines should be changed

e. whether the allocation of units to small and medium-sized enterprises (SMEs) is the most administratively efficient way for protecting impacted sectors either for SMEs or government.

Other issues the Panel should consider

107 The Panel is also interested in whether there are any other issues, in particular any related to the matters set out in section 160(5) of the Act as summarised in Chapter 1, you think it should consider. If there are other issues, please provide details of your view on them.

[67] See section 160(j) of the Act.

5 Synthetic greenhouse gases

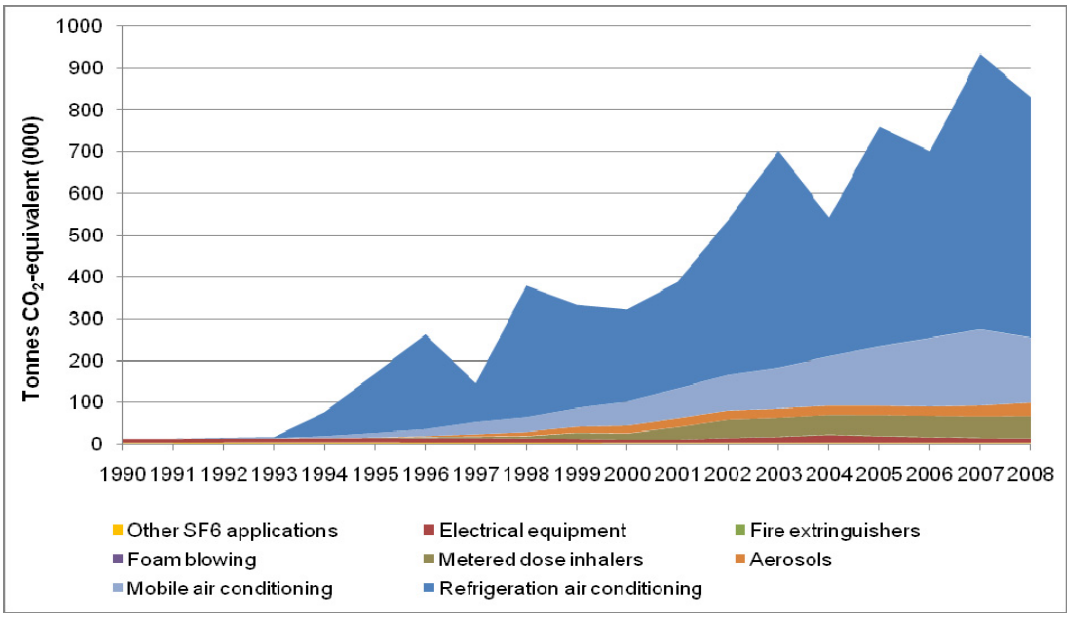
108 The Panel has been asked specifically to consider whether synthetic greenhouse gases should be included in the ETS, taking into account alternative policy tools that can reduce emissions of such gases.

109 Synthetic greenhouse gases (SGGs), are used in many domestic and commercial air-conditioning and refrigeration goods. Examples are supermarket chillers, domestic fridges and heat pumps, motor vehicles, asthma inhalers and air-conditioning used in offices.[68] The gases are characterised by very high global warming potentials (GWPs).[69] They are often referred to as F-gases and include:

- sulphur hexafluoride (SF_6), which is used primarily as an insulator for high voltage electrical equipment
- perfluorocarbons (PFCs), which are mainly found in emissions from aluminium smelters and in some refrigerant gas mixtures
- hydrofluorocarbons (HFCs), which are used to replace ozone-depleting substances in many applications in the refrigeration and air-conditioning sector and other related industrial processes such as the manufacture of plastic foams and as aerosols.

110 Emissions of SGGs have been increasing relatively quickly since 1990. This is simply because more and more of the gases are being imported and used to replace ozone-depleting gases.

Figure 5.1: Emissions of SGGs from major sources since 1990



Source: New Zealand Greenhouse Gas Inventory 2010

68 See Chapter 3 for examples of price increases from ETS coverage for some SGGs using goods.

69 GWP is a term used to measure the effect of a gas compared to an equivalent amount of carbon dioxide. All SGGs have very high GWPs. The most common SGG mixture used in New Zealand is HFC134a, which has a GWP of 1300. The highest GWP belongs to SF_6, at 23,900.

111 SGG emissions occur in a number of ways:

- emissions from a specific use, such as aerosols
- emissions from any refrigerant that escapes during the lifetime of an equipment, which could be more than 50 years
- emissions from repair and maintenance, including 'first fill' emissions
- emissions from decommissioning and dismantling of the system, including deliberate disposal to air and emissions from leakage during gas collection for recycling.

Existing policies and measures

112 Industry and government have implemented a number of voluntary measures to reduce SGG emissions. These initiatives do not address all SGGs and all sources of emissions, and their effectiveness has not been assessed.

113 A list of measures in place in New Zealand includes:

- the recovery and exporting of end-of-life HFCs by the Trust for the Destruction of Synthetic Refrigerants, which is funded by a voluntary levy on bulk imports of gases[70]
- a voluntary memorandum of understanding between the Government and SF_6 users, which requires best practice in SF_6 handling and actions to avoid leakage in return for the Government not applying a carbon price to uses of SF_6 until after 2012
- training and education on how to safely handle equipment and gases (unit standard 19666 in particular), supported by industry engagement through organisations like the Institute of Refrigeration, Heating, and Air Conditioning Engineers and the Refrigeration and Air Conditioning Companies Association. These initiatives only cover the servicing of HFCs contained in stationary refrigeration and air-conditioning equipment
- voluntary standards, such as the Australia and New Zealand Refrigerant Handling Code of Practice, which promote safe and environmentally conscious gas management in the servicing of HFCs contained in stationary refrigeration and air-conditioning equipment, including equipment installation and dismantling.

114 In addition, policies and measures in other areas can impact on SGG use, such as Minimum Energy Performance Standards which affect the choice of refrigerant mixture used in order to maximise energy efficiency.

115 Finally, policies implemented overseas also affect our SGG emissions, as New Zealand is largely a technology taker for most uses of SGGs. For example, the EU F-gas regulations have provided impetus to alternative refrigerants in mobile air-conditioning and smaller gas charges.

[70] The Trust reported a collection and destruction of approximately 15 tonnes of HFC in 2010. See: www.refrigerantrecovery.co.nz/statistics.shtml

Relationship to ozone protection policies

116 There are close relationships between the uses of ozone-depleting substances and SGGs. SGGs are alternative chemicals to ozone-depleting substances in stationary refrigeration and air-conditioning, aerosol, and foam blowing. The importation of SGGs has risen rapidly since the late 1990s as a result of the broad controls imposed on ozone-depleting substance importers and users by the Ozone Layer Protection Act 1996 (OLPA).

117 The OLPA and its regulations, the means by which New Zealand meets its obligations under the Montreal Protocol, prescribe various controls such as a bulk ozone-depleting substance import and export licensing system, adherence to a code of practice, and a ban on knowingly releasing ozone-depleting substances to air. Several of these controls are discussed below as if they would apply to SGGs.

118 Ozone-depleting substances have a greenhouse effect, as well as damaging the ozone layer, when released to atmosphere. They are not included in the UNFCCC 'basket' of greenhouse gases because the Montreal Protocol already demands national controls on ozone-depleting substance emissions.

119 Proposals to amend the Montreal Protocol to include HFCs have been discussed formally and informally by the international community. Such proposals have noted that by phasing out ozone-depleting substances the Montreal Protocol has unintentionally encouraged the use of HFCs. New Zealand's position is to support a phase out of HFCs under the Montreal Protocol provided that it includes all parties, including developing countries and major trading partners. However, there has been little progress on the proposals, with many points of detail and differences to be resolved, including interaction with the UNFCCC.

ETS coverage of SGG

120 From 1 January 2013, people who import or manufacture SGGs, including those contained in goods, will have to collect data on that activity, report on the amount of gas imported, and surrender the required number of emission units. In contrast, people who export or destroy SGGs, including those contained in goods, will be eligible for emission units.[71]

121 The ETS will consequently have the following effects:

- price increases for SGG purchases
- cost incentive to minimise leakage and maximise recycling
- incentive to maximise end-of-life gas recovery for destruction
- incentive to import, manufacture and install SGGs with lower global warming potentials, goods with lesser amounts of contained SGG, and new technologies such as alternative refrigerants
- administration and compliance costs for importers and exporters, which are relatively greater for small importers

[71] There are a number of exemptions to these rules. A full discussion on ETS obligations and coverage can be found in the guidance document at http://www.climatechange.govt.nz/emissions-trading-scheme/participating/synthetic-gases/index.html#guidance

- administration and compliance costs for the Government
- 'holding stock' costs for manufacturers who are not able to 'net-out' the increased cost of SGG until it is exported.

122 The ETS will reduce emissions by introducing costs to SGG leakage, and rewards for SGG collection and destruction. However, it is difficult to estimate the scale of emission reductions because the behavioural and technological responses are unknown.

123 ETS coverage of SGG activities is consistent with the ETS treatment of other sources of greenhouse gas emissions, and will lead to improvements in our knowledge of SGG activities, which will increase the accuracy of the national greenhouse gas inventory.

124 However, a number of issues with ETS coverage of SGGs have been raised:

- little information is currently collected from importers of stationary refrigeration and air-conditioning equipment at the customs point. Unless this is addressed, assessing the ETS compliance of SGG importers and exporters is likely to be difficult and costly for the Government
- for ease of administration, the obligations faced by SGG participants under the ETS are calculated based on potential future emissions. This contrasts with New Zealand's obligations under the Kyoto Protocol, which are based on actual emissions
- undesirable impacts may occur, such as possible visual impacts on electricity substations from ETS coverage of SF_6 and an incentive to import ozone-depleting substances contained in goods instead of SGGs.[72]

125 It is unclear to the Panel if these issues are unique to ETS coverage (as currently designed) or would also arise from alternative policies to address SGGs (for example, policies which imposed costs, or required controls at the border).

Other policy measures

126 Besides the ETS, a range of other policy measures have been raised by industry and others that could potentially be used to reduce SGG emissions. A list of examples of potential alternative policy measures is set out below.

127 This list is not intended to be exhaustive. It merely illustrates the type of measures that could be put in place.

128 In addition, the Panel notes that:

- the measures are often cited as alternatives to ETS coverage. However, they are not necessarily mutually exclusive and many could be implemented alongside continued inclusion in the ETS
- none of the examples is likely to be able to cover all SGGs and activities

[72] This perverse impact is the subject of a Ministry for the Environment study into the value of phasing out the import of goods containing ozone-depleting substances.

- it seems likely, given the above, that a combination of a number of alternative measures would be needed to achieve the same environmental outcomes were SGGs to be removed from the ETS
- several of the policy measures raised already apply to ozone-depleting substances and could be expanded to SGGs through possible amendment to the OLPA. [73]

129 The Panel is interested in what you consider to be the optimal measure, or combination of measures. Options might include the same or different ETS coverage in combination with one or more of the measures below; a 'package' of alternative measures selected from the list below to replace ETS coverage; or a different set of measures not set out below.

Examples of possible policy measures

Mandatory accreditation of SGG handlers

130 A mandatory accreditation scheme for SGG handlers would establish a programme that requires all those who handle SGGs, where they might be released to the atmosphere, to have some formal qualification to show they know how to minimise leakage. At its most basic, an accreditation scheme provides a mandatory education programme for those who use the substances covered. A voluntary scheme (the "No Loss Campaign") was run from 2002 to 2006 and independently reviewed in 2006. That review made a number of recommendations, including that any successor scheme should be mandatory.[74]

131 A mandatory accreditation scheme would cover persons involved with SGGs used in the stationary refrigeration and air-conditioning sector. It could possibly be extended to persons handling SGGs in mobile air-conditioning, fire protection and SF_6 uses.

Legally-enforceable code of practice

132 The existing Australian and New Zealand code of practice for the refrigeration and air-conditioning sector could be made legally enforceable. This code was developed jointly with the Australian Greenhouse Office and New Zealand and Australian industries and released in 2007. Such a measure would probably be required through any mandatory accreditation scheme, and so would cover the same people involved in servicing SGG equipment.

Emissions ban

133 The OLPA bans the release of particular ozone-depleting substances, while carrying out certain activities. However, such a ban applied to SGGs would, in the Panel's opinion, be

[73] None of the measures relate specifically to PFCs. As noted above, aluminium smelting is the major source of PFC emissions in New Zealand. These emissions are not within the scope of this particular policy review. Other PFC emissions occur through uses as refrigerant mixtures with HFCs, consequently measures that address the refrigeration and air-conditioning sectors will include the remaining sources of PFC emissions.

[74] Source: URS (2006) *Evaluation of the No Loss Campaign*, Report to the Ministry for the Environment

almost impossible to enforce, and would not be suited to certain uses of SGGs (SF_6, foam blowing, aerosols and fire protection in particular).

Mandatory levy

134 A levy could be required to be paid by any or some importers in lieu of ETS coverage. A voluntary, industry-led levy is currently in place for imports of bulk HFC. This could be made mandatory. Alternatively, a levy could apply to SGGs imported in motor vehicles instead of ETS coverage. Levy funds could be directed to particular emission-reducing activities, such as gas collection for destruction.

Licence to import SGGs

135 The Government could require licences for importing SGGs in bulk and in goods that are the major sources of emissions, such as motor vehicles and domestic and commercial air-conditioning and refrigeration equipment.

136 Such a system is in place for ozone-depleting substances in New Zealand, and involves a declining cap on the quantity of ozone-depleting substances imported and transferable licences. In Australia, import permits for SGGs have a reasonably high cost. This cost has probably placed a barrier against small and infrequent importing.

Extension of Memorandum of Understanding with SF_6 users

137 The current voluntary memorandum of understanding (MOU), which expires at the end of 2012, requires SF_6 users to minimise SF_6 emissions when installing new equipment, during maintenance, and during retirement of old equipment, as guided through various standards. A target emission rate of 2 per cent from installed SF_6 capacity was in place for major users, and has been achieved. Users are also required to report on installed SF_6 and on estimated emissions.

138 Extending the MOU past 2012 would allow it to capture new SF_6 users. But it would only ever cover SF_6 users and not the other sources of SGG emissions.

Coverage of potential measures

139 As previously noted above, most of the examples of policy measures listed above do not have this same breadth of coverage as the ETS. To assist respondents' consideration of how these policies might work in combination, table 5.1 below sets out their potential coverage.

Table 5.1: Coverage of potential measures

Activity	Stationary refrigeration and air-conditioning	Mobile refrigeration and air-conditioning	Foam blowing	Aerosols	Fire protection	Electrical equipment
SGG (GWP)	HFCs and PFCs (1300 to 3300)	HFC-134a (1,300)	HFC-134a (1300)	HFC-134a (1300)	HFC-227ea (2900)	SF_6 (23,900)
Policy measure						
ETS	Yes	Yes	Yes	Yes	Yes	Yes
Accreditation	Yes	Yes	Possibly	Possibly	Possibly	Possibly
Code of practice	Yes	Yes	Possibly	Possibly	Possibly	Possibly
Emissions ban	Yes	Possibly	Possibly	No	No	Possibly
Levy	Yes	Yes	No	No	No	No
Import license	Yes	Difficult	Difficult	Difficult	Possibly	Possibly
SF_6 MOU	No	No	No	No	No	Yes

Consultation questions

Q17 Should the ETS cover synthetic greenhouse gases (SGG) from 2013, as currently legislated?

a. if no, what other policy tools or what combination of policy tools should be used to encourage reduction in SGG emissions?

b. if yes, are there supporting measures or amendments to the ETS that could support implementation and reduce administrative and compliance costs?

c. if the ETS should be amended to cover only some SGG-using sectors: which ones, why, and what policies should be developed for the others?

In your response we would be interested in:

d. estimated impacts of the ETS coverage of SGGs (such as compliance costs for direct participants, on rates of gas recovery and recycling or destruction, and on management of leakage)

e. arguments for or against alternative policy tools

f. estimated impacts, including behavioural impacts in terms of incentives to reduce emissions, of alternative policy tools.

6 Consultation process

List of consultation questions

140 Below is a complete list of the questions raised in the previous chapters and on which the Panel wishes to focus consultation with stakeholders:

Q1 Do you agree/disagree with the Panel's assessment of the current impact of the ETS? If not, why not?

Q2 What impacts of the ETS have you experienced to date?

In your response we would be interested in:

a. financial impacts you have experienced and how you have managed these (eg, passed them on to consumers)

b. how significant the impact of the ETS has been relative to other changes, such as GST increase, consumer demand changes and oil price increases

c. whether the ETS has yet influenced your investment decisions (eg, on low-carbon technologies, and land development)

d. whether the ETS has yet influenced your operating decisions (eg, input sourcing, supply chain, choice of energy supply)

e. other impacts of the ETS (eg, social, environmental).

Q3 What are your views on the administrative efficiency of the ETS?

In your response we would be interested in comments on:

a. compliance costs associated with the ETS (including brokerage fees)

b. complexities of ETS reporting requirements (such as accounting methodologies)

c. penalties for breaching ETS obligations

d. the organisation of this administration across government, including the role of the Environmental Protection Authority.

Q4 In your opinion, are the modelling results in paragraph 62 (page 21) likely to reflect the actual macroeconomic impacts of the ETS? If not, in your opinion, how will the ETS affect New Zealand in overall economic terms?

Q5 Do you agree/disagree with the Panel's assessment of the impact of the ETS after 2012? If not, why not?

Q6 What impacts do you expect to experience after 2012 (given the current design settings of the ETS)?

In your response we would be interested in:

a. how impacts will change once the transitional phase ends

b. whether any significant business risks are created by uncertain carbon prices, and if so, how these risks could be mitigated

c. any competitiveness risks and therefore risks of carbon leakage

d. any business opportunities and benefits that may arise

e. how you expect abatement technologies to develop by 2015 and beyond

f. comparison between carbon prices and abatement costs

g. how you expect the ETS to affect New Zealand socially and environmentally in the long term.

Q7 As forestry is New Zealand's largest source of carbon credits and has a significant influence on emissions reduction in New Zealand, do you think the ETS provides enough incentive for forestry investments? If not, why not?

Q8 Do you agree with the Panel's assessment of the impacts of the ETS on Māori? If not, why not?

Q9 In your opinion, what impacts of the ETS have Māori experienced to date?

Q10 In your opinion, how will the ETS affect Māori in the longer term?

Q11 Do the scenarios in table 4.1 (page 28) capture the most likely outcomes for the international framework after 2012? If not, what other scenario(s) do you suggest the Panel should consider?

Q12 How might the objective(s) of the ETS change under each of these scenarios? In particular:

a. what do the different scenarios imply about the costs New Zealand should be imposing on its economy through the ETS in the short term?

b. what considerations should influence how the costs of any international obligation New Zealand faces should be shared between different sectors of the economy such as the split between emitters and taxpayers and the relative abilities of different sectors to reduce emissions?

c. what is the role of the ETS in preparing New Zealand for the international obligations and other drivers for action it may face in the long term?

d. should the ETS design be changed in order to strengthen the incentives for domestic abatement? If so, how?

e. how important is continuing access to international carbon markets?

f. how do you see domestic and international carbon markets developing beyond 2012?

Q13 Under what conditions should the ETS scale up to a full obligation? In particular:

a. Should the fixed price option of $25 continue beyond the current transition phase (ie, after 2012)?

b. Should the one-for-two obligation continue beyond the current transition phase?

Q14 To what extent, if any, should abatement options be relevant in determining the extent of a sector's participation in the ETS?

Q15 Under what conditions should new sectors enter the scheme and incur surrender obligations?

Q16 Should allocation of NZUs continue as planned under current design settings after 2012?

In your response we would be particularly interested in:

a. the effectiveness of allocation in reducing competitiveness risks

b. the impact of allocation on incentives to reduce emissions

c. whether the allocation thresholds should be amended

d. whether the process to determine allocative baselines should be changed

e. whether the allocation of units to small and medium sized enterprises (SMEs) is the most administratively efficient way for protecting impacted sectors either for SMEs or government.

Q17 Should the ETS cover synthetic greenhouse gases (SGG) from 2013, as currently legislated?

a. if no, what other policy tools or what combination of policy tools should be used to encourage reduction in SGG emissions?

b. if yes, are there supporting measures or amendments to the ETS that could support implementation and reduce administrative and compliance costs?

c. if the ETS should be amended to cover only some SGG-using sectors: which ones, why, and what policies should be developed for the others?

In your response we would be interested in

d. estimated impacts of the ETS coverage of SGGs (such as compliance costs for direct participants, on rates of gas recovery and recycling or destruction, and on management of leakage)

e. arguments for or against alternative policy tools

f. estimated impacts, including behavioural impacts in terms of incentives to reduce emissions, of alternative policy tools.

Q18 Are there are any other issues, in particular any related to the matters set out in section 160(5) of the Act as summarised in Chapter 1, you think the Panel should consider? If so, please provide details of your view on them.

How to make a submission

141 Please ensure your submission addresses those questions above which are relevant to you and that it contains the following contact details:

a. your name

b. the name of the organisation you represent

c. your address

d. your email address

e. your telephone number.

142 Please email your submission to **etsreview2011@climatechange.govt.nz**. If you do not have access to the internet then please send your submission to:

ETS Review 2011 Consultation
Ministry for the Environment
PO Box 10362
Wellington 6143.

Submissions close 5.00pm Wednesday 6 April 2011

Request for evidence-based submissions

143 As far as possible, the Panel intends to base its conclusions and recommendations on the evidence available to it. Please provide evidence, analysis or data to support the points made in your submission. The Panel is likely to attach more weight to those submissions which have provided evidence than those which have not.

Panel meetings with stakeholders

144 It is unlikely the Panel will be able to meet with all stakeholders who make a submission, given the number of submissions it is likely to receive. However, the Panel does intend to meet with a selection of stakeholders after the deadline for written submissions. Please indicate in your submission whether you wish to meet with the Panel. The Panel will notify directly those stakeholders it determines are most appropriate to meet. The dates for these meetings are 13, 15 and 20 April 2011, and will be based in Wellington. It would be helpful if you could indicate in your submission which of these dates would be preferable, should the Panel decide to meet with you.

Publication of submissions

145 The Ministry for the Environment may publish all or parts of any written submission on the Government's climate change website at http://www.climatechange.govt.nz. We will consider you to have consented to such publishing by making a submission, unless you clearly specify otherwise in your submission.

Requests for official information

146 The content of submissions is subject to the Official Information Act 1982. Copies of submissions sent to us will normally be released in response to an Official Information Act request from a member of the public.

147 If you object to the release of any information contained in your submission, please clearly state this in your submission, including which part(s) you consider should be withheld, together with the reason(s) for withholding the information. We will take into account all such objections when responding to requests for copies of, and information on, submissions to this document.

Privacy

148 If you do not wish your name and any identifying details in your submission to be recorded in the summary of submissions or released in response to a request, please clearly state this in your submission. At your request, we will make your submission anonymous in the summary of submissions and remove your name from the list of submitters before they are published on the ETS Review 2011 website. However, please note that the Ministry for the Environment will not be able to withhold any information if doing so would contravene the requirements of the Official Information Act.