

# Regulatory Impact Statement

## **ETS Review 2011: Proposed amendments to the Climate Change Response Act 2002**

### **Agency Disclosure Statement**

This Regulatory Impact Statement (RIS) has been prepared by the Ministry for the Environment with input from the Ministry for Primary Industries.

This RIS provides an update of the analysis previously conducted for a number of significant problems identified with the ETS as currently legislated. The initial analysis was contained in a previous RIS on these matters. The updated analysis reflects the issues and arguments raised during consultation on the preferred policy options previously identified. In addition, it also provides an analysis of a number of new problems that have been identified. Where possible a preferred option has been identified. These preferred options require legislative amendments to implement.

The analysis conducted is underpinned by a range of assumptions, not least the assumed carbon price to 2020. However, a higher or lower carbon price would not change the preferred policy options. In addition, some of the ETS cost estimates depend on emission projections produced by various models which in turn depend on a range of assumptions. Furthermore, some of the impacts, such as the costs or benefits arising from changes in environmental integrity and market certainty, are difficult to quantify and hence a qualitative assessment has been adopted instead.

Many of the preferred options would benefit business by reducing their costs, either by providing them with more options and flexibility (e.g. the introduction of pre-1990 forestry offsetting), or reducing risks they would otherwise face (e.g. the introduction of auctioning). Some preferred options would increase business costs (e.g. using the updated Global Warming Potentials) and reduce flexibility (e.g. extending the ban on exporting New Zealand Units for the non-forestry sectors).

None of the preferred options would impair private property rights and market competition or the incentives on businesses to innovate and invest. Nor would they override fundamental common law principles.

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Signature of person

Date 20 June 2012

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## Executive summary

1. Between March and May 2012, Cabinet made in principle decisions on a number of changes to the Emissions Trading Scheme (ETS). These decisions were based on three Cabinet papers and associated Regulatory Impact Statements (RISs), which set out a number of problems identified with the ETS as currently legislated and proposed changes to the ETS to address these problems.<sup>1</sup> Some of these in principle decisions were subject to consultation, namely those in the first Cabinet paper and RIS (RIS (Part 1)). In April 2012 the Government launched a consultation on its proposed changes to the ETS.<sup>2</sup> Consultation closed in May. Final Cabinet decisions will be made in response to the consultation.
2. During the consultation concerns were raised about the Government's policy proposals. Some identified other issues not covered in the three previous Cabinet papers and RISs. In the light of the consultation responses, officials have reviewed the previous Regulatory Impact Analyses (RIA) conducted and contained in the previous three RISs.
3. This RIS provides an update to the RIA previously conducted in the light of the consultation responses. In addition, this RIS covers other policy problems with the ETS as currently legislated or with the Government's proposed changes if they were implemented as raised in the consultation submissions and not covered in the previous RISs.
4. For each problem a number of alternative policy options have been considered against assessment criteria. These assessment criteria are based on three high level objectives agreed by Cabinet for the Panel's review, namely that the ETS beyond 2012:
  - helps New Zealand to 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.
5. Based on this assessment, officials recommend a number of changes to the ETS. These changes require legislative amendments to the Climate Change Response Act 2002 (the Act). Under current legislation, a number of changes to the ETS will come into force on 1 January 2013, such as an end to the transition phase measures. If the Government wants to make changes to these ETS settings then legislative amendments need to be made before the end of 2012.
6. A summary of the RIA set out in this RIS is set out in Annex 2.

### *Supply of NZUs after 2012*

7. In RIS (Part 1) the preferred policy option was to auction NZUs up to an overall cap because this option best addressed the problems identified with the ETS as currently legislated, namely excessive purchasing of international units and the loss of economic

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<sup>1</sup> The first Cabinet paper, RIS (Part 1) and associated Cabinet minute are available at: <http://www.climatechange.govt.nz/consultation/ets/index.html>

<sup>2</sup> See: <http://www.climatechange.govt.nz/consultation/ets/index.html>

welfare this entails. This option was consulted on and a small majority disagreed with the option. Following an assessment of the issues raised in the consultation, the RIA in RIS (Part 1) remains valid and the option of auctioning NZUs within an overall cap is still preferred.

8. A number of submitters were concerned that if this option was implemented then it would increase regulatory and market uncertainty. This is because the Government would be able to make changes, particularly to the cap, through regulations and would only need to give one year's notice of the changes. Accordingly, it is proposed that the Act is amended to allow for annual extensions of the regulation related to auctioning by one year. This will mean ETS participants will always have information on the level of the cap for a five year period.
9. Another issue identified is that the cap, as currently proposed, would also cap allocation if allocation increased significantly. The preferred policy option is to amend the Act to make it explicit that the cap does not limit the amount of NZUs allocated, consistent with the current policy intention for allocation. A further issue identified is the cap as proposed would include NZUs allocated and auctioned. This would include a one-off allocation in 2013 that will be provided to pre-1990 forestry as compensation. The preferred policy option is to exclude NZUs provided as compensation. **[Withheld under s9(2)(b)(ii) & s9(2)(ba)]**

#### *Transition phase measures*

10. The Government consulted on its proposals to (i) extend and gradually phase out the one-for-two surrender obligation, (ii) extend and maintain the \$25 fixed price option and (iii) extend the ban on exports of NZUs from the non-forestry sectors. In light of the consultation responses, the impacts of a new policy option, namely to extend and maintain the one-for-two surrender obligation, has been considered. In addition, the RIA set out in RIS (Part 1) for the other two proposals remains valid.

#### *Industrial allocation*

11. Three new policy problems in relation to industrial allocation have been identified during the consultation and a RIA has been conducted. Under the ETS as currently legislated, fugitive emissions of coal seam methane and liquid fossil fuels for stationary energy use are not included in calculations for industrial allocation. This may have an impact on the international competitiveness of businesses facing ETS costs associated with these emissions. The RIS sets out a RIA of a number of policy options to address these problems. In relation to fugitive emissions of coal seam methane, the preferred policy option is to include these emissions for industrial allocation purposes for coal users.
12. Finally, under the ETS as currently legislated, industrial allocation is due to phase out by 1.3 per cent per annum from 2013. This has been assessed against an option of delaying the start of the phase out of industrial allocation to 2015. The RIS sets out a RIA.

#### *Pre-1990 forestry*

13. In international negotiations in Durban in 2011, a flexible land use (FLU) rule was agreed for a second commitment period of the Kyoto Protocol (called offsetting). This permits pre-1990 forest land to be changed to a higher-value land use without deforestation liabilities, provided a new forest is established elsewhere. Cabinet has agreed that implementation will follow the international rules. The three offsetting

options based on eligibility requirements were considered in RIS (Part 1): harvesting at any age, harvest at any age with offset planting required to be maintained for a full rotation and harvest mature trees only. The last two options mitigate possible fiscal risks. Only the first of these options was consulted on. Most submitters agreed with the introduction of offsetting, as it would optimise land use, and consequently economic growth. Some submitters sought a change to include forest land that was harvested in the first commitment period.

14. Pre-1990 forest landowners receive a one-off allocation of NZUs (distributed in two tranches) in partial compensation for the impact on land values of the ETS pre-1990 forestry rules. The introduction of offsetting from 2013 changes the ETS pre-1990 forestry rules; therefore, there is a case to review previous decisions on the second tranche of the forestry allocation.
15. Three policy options were set out in RIS (Part 1) and were consulted on: cancel for those who take up offsetting, partial cancellation and full cancellation. The two main options for partial cancellation are also considered in this RIS: a flat rate pro rata (e.g. 50 per cent of the second tranche) and a fixed number of NZUs for all (e.g. 11 NZUs).
16. Submitters rejected that the second tranche should be cancelled in the light of introducing offsetting. Many noted that most land is best suited to forestry and that there were practical or capital constraints to them taking up offsetting. Iwi/Māori raised concerns of specific barriers for them to taking up offsetting. Under the status quo, there are significant fiscal costs. **[Withheld under s9(2)(g)(i)]**. However, all landowners would receive the units they have been expecting.
17. Cancelling for those taking up offsetting was preferred by submitters; however this creates minimal fiscal savings. Full cancellation maximises fiscal savings, **[Withheld under s9(2)(g)(i) and s9(2)(h)]**. The partial cancellation options have some fiscal savings, **[Withheld under s9(2)(g)(i) and s9(2)(h)]**.

#### *Global warming potentials*

18. In RIS (Part 1) the preferred policy option was to align the Global Warming Potentials used by ETS participants to account and report their emissions with those that New Zealand will use to report on its emissions from 1 January 2013. This will ensure consistency of the treatment of emissions under the ETS with New Zealand's international reporting obligations. This option was consulted on with no strong majority either way. Following an assessment of the issues raised in the consultation, the RIA in RIS (Part 1) remains valid and this option is still preferred.

#### *Backing of NZUs with international units*

19. In RIS (Part 1), the preferred policy option was to remove the requirement under the ETS as currently legislated, to back NZUs issued with international units. This option was consulted on and a majority disagreeing with the preferred option. Following an assessment of the issues raised in the consultation, the RIA in RIS (Part 1) remains valid and this option is still preferred.

### *Consultation*

20. As noted above, the Government launched a consultation on its proposed changes to the ETS in April 2012.<sup>3</sup> Ten regional hui, seven regional forest industry meetings and several meetings with business organisations were held with officials from the Ministry for the Environment and/or the Ministry for Primary Industries. Previously, there had been consultation on many of these issues, for example through the 2011 ETS Review Panel's consultation<sup>4</sup> and the Agriculture ETS Advisory Committee.<sup>5</sup>

### *Implementation, monitoring and evaluation*

21. These proposals will be implemented through amendments to the Act and supporting regulations.
22. The amendments made will be monitored and evaluated to ensure they effectively address the problems identified. Monitoring and evaluation plans will be developed once these proposals have been approved by Cabinet. The Act requires five-yearly reviews of the ETS (the first occurred in 2011). The review in 2016 will provide an opportunity to reassess the effectiveness of the proposed amendments and the ETS more broadly. The monitoring and evaluation plans will ensure that the review has the information available to it to make this assessment.

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<sup>3</sup> See: <http://www.climatechange.govt.nz/consultation/ets/index.html>

<sup>4</sup> For more information about the Panel's consultation see: <http://www.climatechange.govt.nz/emissions-trading-scheme/ets-review-2011/consultation/index.html#summary>

<sup>5</sup> For more information about this committee see: <http://www.mpi.govt.nz/agriculture/agriculture-ets>

## Glossary of terms

AAU	Assigned Amount Unit. An AAU is an internationally tradable emission unit or carbon credit issued as part of the Kyoto Protocol to allow countries to meet their emission obligations and is equal to one metric tonne of carbon dioxide equivalent emissions.
the Act	Climate Change Response Act 2002.
Afforestation	The direct human-induced conversion of non-forested land to forested land through planting, seeding and/or the human-induced promotion of natural seed sources.
CER	Certified Emission Reduction. A CER is a tradable emission unit or carbon credit issued by the Clean Development Mechanism (CDM) Registry for emission reductions achieved by CDM projects and verified by the rules of the Kyoto Protocol. CERs can be used by countries that have ratified the Kyoto Protocol to meet their emissions limitation or reduction commitments.
CO <sub>2</sub> -e	Carbon dioxide equivalent. The quantity of a given greenhouse gas multiplied by its global warming potential, which equates its global warming impact relative to carbon dioxide (CO <sub>2</sub> ).
Cost of emissions	This is also referred to as the price of carbon. A cost faced by emitters for the release of greenhouse gas emissions into the atmosphere.
Deforestation	The conversion of indigenous and exotic forest land to another use, such as grazing. Deforestation involves clearing forest and not replanting within four years after clearing. It does not include harvesting where a forest is replanted as this is part of normal plantation forestry activities.
Eligible emission units	Certain types of emission units that can be surrendered by ETS participants to meet their obligations. These include NZUs and certain types of emission units created under the Kyoto Protocol.
Emissions	The release of greenhouse gases into the atmosphere from human activity.
the ETS	the New Zealand Emissions Trading Scheme. Under the ETS certain emitters of greenhouse gases have an obligation to report their emission and surrender eligible emission units to cover their emissions.
ETS participants	Emitters of greenhouse gases or people engaged in removal activities such as forestry that have obligations under the ETS to report on their greenhouse gas emissions, and to surrender eligible emission units to cover these emissions or earn units under the Act.
First commitment period	The period from 2008 to 2012 under which the countries ratifying the Kyoto Protocol have to meet their emission limitation or reduction commitments.
Fixed price option	During the transition phase to 31 December 2012, certain ETS participants have the option to buy New Zealand emission units (NZUs) from the Government for a fixed price of \$25.
Forests	Forest land is an area of land of at least one hectare with forest species that has, or is likely to have, tree cover of more than 30 per cent in each hectare. Forest land does not include land that has, or is

likely to have, tree crown cover with an average width of less than 30 metres unless it is contiguous with other forest land that meets the crown cover and width criteria. Forest species are trees capable of reaching five metres in height at maturity in the place they are growing, excluding tree species grown for the production of fruit and nut crops.

Greenhouse gases	Greenhouse gases are constituents of the atmosphere, both natural and anthropogenic, that absorb and re-emit infrared radiation. The gases covered under the first commitment period of the Kyoto Protocol are carbon dioxide (CO <sub>2</sub> ), methane (CH <sub>4</sub> ), nitrous oxide (N <sub>2</sub> O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF <sub>6</sub> ).
GWP	Global warming potential. See CO <sub>2</sub> -e above.
Kyoto Protocol	A protocol to the UNFCCC that includes emissions limitation or reduction commitments for ratifying developed countries.
the Minister	Minister for Climate Change Issues.
MPI	Ministry for Primary Industries
NZUs	New Zealand emission units created by the Government. These are either allocated or sold to certain ETS participants. They are the main unit of trade in the ETS and can be surrendered by ETS participants to meet their ETS obligations. In certain circumstances, NZUs can be converted to AAUs and sold overseas.
One-for-two obligation	During the transition phase to 31 December 2012, certain ETS participants have to surrender one eligible emissions unit for every two tonnes of emissions. This is also referred to as the 50 per cent progressive obligation.
Pre-1990 forests	Forest established before 1 January 1990 on land that remained in forest and was predominantly exotic species on 31 December 2007. See section 4 of the Act.
Price of carbon	See cost of emissions.
Post-1989 forests	New forest established after 31 December 1989 on land that was not forest at that date. These forests are eligible to earn carbon units (or carbon credits) from 1 January 2008. See section 4 of the Act.
Transition phase	Under the Act, the period up to the end of 2012 during which there is an option to buy New Zealand emission units (NZUs) from the Government for a fixed price of \$25, a one-for-two surrender obligation and there are restrictions on the export of NZUs.
UNFCCC	United Nations Framework Convention on Climate Change. This is an international treaty on climate change that came into force in 1992. It continues to apply after 2012 (i.e. after the end of the first commitment period of the Kyoto Protocol).

## Background to this RIS

- Between March and May 2012, Cabinet made in principle decisions on a number of changes to the Emissions Trading Scheme (ETS) that would require an amendment to the Climate Change Response Act 2002 (the Act). These decisions were based on three Cabinet papers and associated Regulatory Impact Statements (RISs), which set out a number of problems identified with the ETS as currently legislated and proposed changes to the ETS to address these problems.<sup>6</sup> Some of these in principle decisions, namely those in the first Cabinet paper and RIS (RIS (Part 1)), were subject to consultation. The table below sets out the problems identified in the previous three RISs, the Government's in principle decisions, and whether the decision was subject to consultation (shaded rows).

<b>RIS part</b>	<b>Problem identified in RIS</b>	<b>Government's in-principle decisions</b>
1	Lack of flexibility over the level of ambition achieved by the ETS	Allow for an express regulation making power to auction NZUs within an overall cap on the number of NZUs allocated and auctioned
1	Requirement to back NZUs	Remove the requirement to back NZUs
1	One-for-two surrender obligation	Extend and phase out the one-for-two surrender obligation from 2013 to 2015
1	Fixed price option	Extend the \$25 fixed price option to 2015
1	Exports of non-forestry NZUs	Extend the ban on non-forestry exports of NZUs while the fixed price option remains
1	Pre-1990 forestry offsetting	Enable offsetting for pre-1990 forest land
1	Cancellation of second tranche of allocation to pre-1990 forestry	Consult on three options to change the second tranche of allocation to pre-1990 forestry, subject to the introduction of offsetting
1	Global warming potentials	Align the global warming potentials used to calculate obligations under the ETS with those used by New Zealand to account and report its emissions internationally
2	Wilful leakage of synthetic greenhouse gases (SGG)	Prohibit the release of SGG knowingly or without lawful justification
2	Point of obligation for sulphur hexafluoride activities	Point of obligation should be shifted from importers to users of sulphur hexafluoride
2	SGG in motor vehicles imported	Remove ETS obligations for importers of SGG contained in motor vehicles and replace with a levy
2	SGG in other goods imported	Remove ETS obligations for importers of SGG contained in other goods and replace with a levy
2	Exporting SGG as a removal activity	Remove the provisions for receiving NZU for exporting and destroying SGG
2	Exemptions for importing particular SGG	Remove exemptions from the Act's regulations
3	Treatment of egg producers in the ETS	Remove egg producers as an activity from the ETS
3	Eligibility of pre-1990 forest land for the less than 50 hectare deforestation exemption	Unrelated pre-1990 forest landholdings of a sole professional trustee, including the Maori Trustee, are not counted towards the 50 hectare threshold for an exemption

<sup>6</sup> The first Cabinet paper, RIS (Part 1) and associated Cabinet minute (12) 8/7 are available at: <http://www.climatechange.govt.nz/consultation/ets/index.html>

3	De minimis deforestation and boundary management	Clearing on the outer boundary of a forest land area as part of good practice forest management is not treated as deforestation
3	Re-establishment of forest by natural regeneration of indigenous species	Better allow for the re-establishment of forest by natural regeneration of indigenous species, so it is not treated as deforested land
3	Re-establishment of poplars and willows	Better allow for the re-establishment of poplars and willows planted for erosion control, so it is not treated as deforested land
3	Natural disturbance events preventing forest re-establishment	Forest land that is cleared due to natural cause where the area cannot be re-established due to land conditions is not treated as deforested land
3	Land with high risk of tree weed spread	Extend the pre-1990 tree weed exemptions beyond 2012, and prevent the registration in the ETS as post-1989 forest land of naturally regenerated tree weeds
3	Own use of crude oil by an oil miner	Add own-use of crude oil by a miner as an activity in the ETS
3	ETS participation by purchasers of liquid fossil fuels	Allow purchasers of liquid fossil fuels to opt in as ETS participants
3	Phase out of industrial and agriculture allocations	Change the calculation of the phase out for industrial and agriculture allocations so that allocations are withdrawn entirely

2. In April 2012 the Government launched a consultation on its proposed changes to the ETS contained in the first Cabinet paper.<sup>7</sup> This consultation closed in May. Final Cabinet decisions will be made in the light of the responses to the consultation. Submissions to the consultation made a range of comments, both in support and disagreeing with the Government's specific policy proposals. Some consultation submissions identified other policy problems with the ETS as currently legislated that had not been considered in the previous Cabinet papers and RISs or with the Government's proposed changes if they were implemented.

### Scope of this RIS

3. The previous three RISs covered policy problems where the preferred policy option arising from the regulatory impact analyses (RIA) would require an amendment to the Act to implement. All other policy problems were out of scope of those RISs.
4. In the light of the consultation responses, officials have reviewed the previous RIA conducted and contained in RIS (Part 1). An update of the RIA of those policy problems is presented in this RIS. In addition, this RIS also considers other policy problems with the ETS as currently legislated and not covered in the previous RISs or other problems that might arise if the Government's proposed changes were implemented.

### Status quo

5. The ETS is currently New Zealand's primary tool to achieve its international climate change commitments and to transition to a low carbon economy. The ETS was designed in the context of the international framework established under the Kyoto Protocol. For example, the ETS allows participants to sell New Zealand Units (NZUs)

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<sup>7</sup> See: <http://www.climatechange.govt.nz/consultation/ets/index.html>

overseas<sup>8</sup> and to buy and surrender eligible overseas units to meet their ETS obligations. For the purposes of this RIS, in the status quo it is assumed that the ETS will be implemented as currently legislated. In addition, a carbon price of \$6 has been used to estimate the value of emission units.<sup>9</sup> However, a higher or lower carbon price would not change the preferred policy options.

6. The agreement reached in December 2011 at the United Nations Conference of the Parties in Durban provides more certainty about the potential international framework after 2012, when the first commitment period (CP1) under the Kyoto Protocol ends. The key features of the Durban agreement are:
  - a new agreement with 'legal force' covering developed and developing countries will be agreed by 2015 and will come into force by 2020
  - a second commitment period (CP2) under the Kyoto Protocol from 2013 to 2017 (or 2020) covering the European Union, other European countries and any other country who decides to join in 2012<sup>10</sup>
  - confirmation of the continuation of the Clean Development Mechanism (CDM) after 2012 and the development of new market mechanisms
  - in relation to forestry, the inclusion of rules in the Kyoto Protocol on flexible land use (FLU), harvested wood products and reference level accounting approach for forest management, and the removal of the Afforestation-Reforestation Debit-Credit rule.
7. **[Withheld under s9(2)(j)]**
8. The Climate Change Response Act 2002 (the Act) required a review of the ETS to be completed before the end of 2011. The Act required the Minister for Climate Change Issues (the Minister) to appoint a panel (the Panel) to conduct the review and specify its terms of reference. The Minister appointed a Panel in December 2010 and its final report was provided to the Minister on 30 June 2011.<sup>11</sup> The report contained 61 recommendations, a number of which, if accepted, would require amendments to the Act or regulations.

## Objectives

9. The Panel's terms of reference were agreed by Cabinet in 2010.<sup>12</sup> These stated that the objective of the review is to ensure that the ETS beyond 2012:
  - helps New Zealand to deliver its 'fair share' of international action to reduce emissions, including meeting any international obligations (referred to subsequently as 'delivering fair share')

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<sup>8</sup> Under current legislation there is a restriction on the non-forestry sectors from exporting NZUs overseas during the transition phase (until the end of 2012). NZUs are first converted to AAUs before export.

<sup>9</sup> This was the NZU spot price on 31 May 2012.

<sup>10</sup> The USA, Canada, Japan and Russia have already decided not to join. Australia and New Zealand have not yet indicated whether they will join.

<sup>11</sup> *Doing New Zealand's Fair Share, ETS Review 2011: Final report*, ETS Review Panel, 30 June 2011. Further details of the Panel's review and its final report is available at: <http://www.climatechange.govt.nz/emissions-trading-scheme/ets-review-2011/index.html>

<sup>12</sup> See CAB Min (10) 44/11.

- delivers emission reductions in the most cost effective manner (referred to subsequently as 'delivering cost-effective emission reductions'), and
- supports efforts to maximise the long term economic resilience of the New Zealand economy at least cost (referred to subsequently as 'long-term economic resilience').

10. For the purposes of carrying out this RIA, these three high level objectives have been used to develop a number of sub-objectives and assessment criteria. These sub-objectives and criteria are set out in full in Annex 1. Table 1 below provides a summary.

**Table 1: Assessment criteria under each of the high level objectives**

<b>High level objective</b>	<b><u>Delivering fair share</u></b>	<b><u>Delivering cost-effective emission reductions</u></b>	<b><u>Long-term economic resilience</u></b>
<b>Criteria</b>	Facilitate international efforts	Minimise short-term negative economic impacts	Minimise long-term negative economic impacts
	Contribute to NZ international obligations	Minimise costs to businesses	Maintain long-term international competitiveness
	Enhance NZ's international credibility	Minimise market distortions	Provide incentives for the long-term development of low cost emission abatement technologies
	Contribute to achieving NZ's fair share	Minimise risks of trade sanctions	Maximise equity between sectors and socio-economic groups
	Provide incentives to abate	Minimise Government's administrative and implementation costs	Promote intertemporal equity
	Contribute to meeting NZ's 2050 target	Minimise ETS participants' compliance and transaction costs	Ensure appropriate risk-sharing between emitters and Government
		Promote understanding of ETS	Appropriately reflect the Crown's responsibilities as a Treaty partner
		Minimise fiscal costs/maximise fiscal savings	Support the development of the Māori economy consistent with their environmental values
		Maximise market liquidity and transparency	Minimise negative/maximise positive wider environmental impacts
		Facilitate links with other schemes	Ensure the environmental integrity of overseas emission units surrendered in the ETS

## Approach to options analysis

11. For consistency, the criteria have been used for the analysis of all the policy problems identified. A scoring approach was used, whereby each policy option was scored against each criterion compared to the status quo. A positive score meant the policy option was better at achieving a particular criterion than the status quo; a negative value meant it was worse. Where possible, quantitative analysis was used to determine

the order of magnitude of the score. Where this was not possible then judgement was used instead.

12. This approach identified the criteria which were most relevant for assessing the policy options, i.e. where there were material differences in the scores between the policy options and the status quo. Policy conclusions were based upon this analysis, without the need to apply weights to the criteria.
13. In the interests of brevity, this RIS presents the assessment against the high level objectives rather than the full criteria. This assessment is also presented in a summary table in the sections below. A tick shows that the policy option is better at achieving a high level objective than the status quo; a cross shows it is worse. A dash shows it is no different to the status quo. The number of ticks or crosses indicates the scale of how much better or worse it is. This reflects the scoring approach explained above.

### **Problem definition and regulatory impact analysis**

14. The policy problems covered in this RIS are based on:
  - the problems identified in RIS (Part 1)
  - stakeholders' submissions to the Government's consultation on its proposed changes to the ETS
  - other problems that might arise, as identified by officials, if the preferred policy option was implemented.
15. In this context, the RIS considers the policy problems with the ETS after 2012 set out below and each is considered in more detail in the following section.
  - A. The supply of NZUs after 2012
    - i. Lack of flexibility over the level of ambition achieved by the ETS
    - ii. Lack of market and regulatory certainty
    - iii. Potential breaches of the overall cap on NZUs allocated and auctioned
    - iv. NZUs covered by the cap
  - B. Transition phase measures
    - i. One-for-two surrender obligation
    - ii. Fixed price option
    - iii. Ban on exports of non-forestry NZUs
  - C. Industrial allocation
    - i. Fugitive coal seam methane
    - ii. Liquid fossil fuels used in stationary energy
    - iii. Phase out of industrial allocation
  - D. Pre-1990 forestry
    - i. Offsetting
    - ii. Second tranche of allocation
  - E. Global warming potentials

## F. Backing of NZUs with international units

## A. *The supply of NZUs after 2012*

### i. *Lack of flexibility over the level of ambition achieved by the ETS*

#### *Status quo*

16. Under the ETS as currently legislated, ETS participants are expected to purchase and surrender significant amounts of international units to meet their ETS obligations. See RIS (Part 1) for more details of the status quo.

#### *Problem definition*

17. International purchasing is likely to be more than is necessary for New Zealand to meet any domestic or international target. This purchasing represents an overseas cash flow and a loss of domestic economic welfare. It also means that ETS participants are exposed to the risks that arise from an uncertain international market. See RIS (Part 1) for more details of the problem definition.

#### *Policy options*

18. In RIS (Part 1), the preferred policy option was to auction NZUs up to an overall cap. One other policy option was considered, a fixed price option with a ban on international units, but ruled out. See RIS (Part 1) for an assessment of these options.

#### *Impact assessment*

19. As noted above, there has been a consultation on the preferred policy option. The RIA set out in RIS (Part 1) has been reassessed in the light of the consultation responses. This reassessment is set out below.
20. Slightly more submitters disagreed with the preferred option than agreed or agreed in principle. The most common reasons in support given by those who agreed or agreed in principle were the need to avoid excessive purchasing of international units, protect against international market uncertainty and improving domestic market liquidity.
21. The most common reasons given by those who disagreed were concerns over the impact on NZU prices, reduced ability for foresters to sell their NZUs and that the international market will continue to work effectively without the need for Government intervention. These points are considered in more detail below.
22. First, auctioning within an overall cap should not in itself increase NZU prices above international prices. If NZU prices rose above international prices at the auction, then ETS participants would simply buy and surrender international units instead. This means NZU prices at the auction should continue to align with international prices. Therefore auctioning within an overall cap has no impact on the price of NZUs.
23. Second, there will continue to be demand for foresters' NZUs because NZUs supplied under the cap are not expected to meet ETS participants' total demand for units. This means ETS participants will need to source NZUs (or international units) from elsewhere, such as foresters. Depending on future ETS design settings, estimated residual demand for units is likely to be in excess of the estimated supply of NZUs to

foresters.<sup>13</sup> Therefore auctioning within an overall cap has no impact on the demand for foresters' NZUs.

24. Third, as noted by many submitters who agreed with the preferred option, there is significant international market uncertainty to justify increasing the supply of NZUs by auction to reduce New Zealand's exposure to these risks. Therefore, one of the problems identified in RIS (Part 1), which auctioning within an overall cap is intended to address, remains valid.
25. Some submitters proposed alternative ways for the Government to increase the supply of NZUs instead of auctioning in order to address its concerns over the excessive purchasing of international units. These included:
  - a partial or complete restriction on international units, or a restriction increasing over time, to increase NZU prices to incentivise more forestry planting
  - giving NZUs to support the take-up of renewable energy
  - allowing ETS participants to purchase NZUs from the Government at the prevailing international price
  - giving more NZUs to pre-1990 foresters as compensation to reflect their actual loss of land value.
26. All of the alternatives proposed by submitters would increase the supply of NZUs. However there is no certainty that they would increase the supply by the required amount, i.e. to avoid unnecessary purchasing of international units. A cap and auction scheme would do this. In addition, some of the proposed alternatives would increase NZU prices and hence costs to ETS participants. Whereas a cap and auction scheme would not.<sup>14</sup>
27. One submitter noted that the problem could be reduced (i.e. halved) if the one-for-two surrender obligation<sup>15</sup> continued rather than be phased out as proposed. Whilst extending the one-for-two surrender obligation would reduce the scale of the problem it would still result in unnecessary purchasing of international units.<sup>16</sup>
28. In the light of the consultation responses, the RIA set out in RIS (Part 1) remains valid. Accordingly, auctioning NZUs up to an overall cap remains the preferred option to address the problem of excessive purchasing of international units and the loss of economic welfare this entails.
29. If auctioning is implemented as proposed then a number of problems arise. These are:
  - lack of market and regulatory certainty
  - potential breaches of the cap on NZUs allocated and auctioned
  - NZUs covered by the cap
30. The RIA for these problems is set out below.

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<sup>13</sup> For example, based on the ETS as legislated the expected demand for NZUs will exceed the expected supply of NZUs to foresters by about 50m NZUs between 2013 and 2020.

<sup>14</sup> Absent any restriction or with a loose restriction on international units.

<sup>15</sup> The ETS as legislated currently requires participants to surrender one NZU for every tonnes of emissions as part of the transition phase measures.

<sup>16</sup> [Withheld under s9(2)(g)(i) and s9(2)(f)(iv)].

ii. *Lack of market and regulatory certainty*

31. The Government has proposed to amend the Act to:
- introduce an express regulation making power to auction NZUs up to an overall cap
  - specify the matters these regulations may include, such as the levels of the cap and any restriction on international units, and
  - set out a process for amending these regulations, notably that one year’s notice must be given before regulations can be amended.

*Problem definition*

32. During the consultation, a common concern raised by submitters was that if these proposals were implemented this would increase regulatory and market uncertainty. This is because the Government would be able to make changes through regulations and would only need to give one year’s notice of any change. A number of submitters said the proposals should instead be set in primary legislation and/or the notice period should be increased to at least three years.
33. The Act already allows for NZUs to be sold which could include sale by auction. It also allows for restrictions on international units through regulations. The purpose of the Government’s proposals was to provide more clarity and specificity in relation to how the Government would use these powers. For example, the regulations would set out the level of the overall cap and the level of any restriction on international units in each year for a five year period. This should provide more market and regulatory certainty over the supply of NZUs to the market.
34. In addition, it is proposed that the primary legislation would set out the matters the Minister must have regard to when setting the cap. This should provide greater transparency on decisions on the level of the cap.

*Policy options*

35. In making these proposals, the Government struck a balance between providing market and regulatory certainty, and retaining flexibility to respond to changing international (e.g. **[Withheld under s9(2)(j)]**) and domestic circumstances, such as changes to ETS design settings (e.g. the exclusion of agriculture emissions).
36. However, four other policy options for increasing market and regulatory certainty have been identified. An outline of these policy options is set out in the table below. Note that these options are not mutually exclusive. This means more than one option could be adopted instead of the status quo.

Option	Key features
<b>Status quo</b>	<ul style="list-style-type: none"> <li>• Auction design details, such as the levels of the cap and the restriction on international units, specified in regulations for a five year period</li> <li>• One year’s notice for amending the regulations</li> </ul>
<b>1: Set cap and international unit restriction in the Act</b>	<ul style="list-style-type: none"> <li>• As status quo but cap and restriction on international units specified in the Act rather than the regulations</li> </ul>
<b>2: Increase notice period for changing regulations</b>	<ul style="list-style-type: none"> <li>• As status quo but notice period for amending regulations increased to three years</li> </ul>
<b>3: Update regulations</b>	<ul style="list-style-type: none"> <li>• As status quo</li> </ul>

<b>each year to maintain a five year period</b>	<p>AND</p> <ul style="list-style-type: none"> <li>• Regulation updated each year to maintain a five year period covered in the regulations</li> </ul>
<b>4: Specify a backstop cap in the Act</b>	<ul style="list-style-type: none"> <li>• As status quo</li> </ul> <p>AND</p> <ul style="list-style-type: none"> <li>• A backstop cap based on maintaining 1990 emissions would be specified in the Act</li> </ul>

*Impact assessment of each option*

37. All of the options address the problem identified, namely increased market and regulatory uncertainty if the Government's proposals in relation to auctioning were implemented. compared to the status quo. This is because these options would provide greater certainty, in various ways. Options 1 and 2 provide significantly more certainty by substantially reducing the ability of Government to change the cap and restriction. Option 3 would provide some certainty as it ensures that ETS participants always have information on the level of the cap and restriction for the next five years. Option 4 would provide some certainty of the maximum possible number of NZUs supplied to the market.
38. Increasing market and regulatory certainty would benefit ETS participants as they would be better able to plan their unit purchasing decisions, potentially reducing their transaction and compliance costs. Some of these cost savings may be passed on to customers and consumers. It is however very difficult to measure the impacts arising from greater certainty under each policy option and hence the related scale of any cost savings.
39. For those options that reduce flexibility to adjust the cap, this would impact on Government. A loss of flexibility will make it more difficult to adjust the cap and any restriction on international units to reflect changing international and domestic circumstances. For example, if agriculture emissions are excluded from the ETS then a loss of flexibility may mean it is not possible to adjust the cap to reflect this change of circumstance. This would result in too many NZUs being auctioned such that New Zealand's emission reduction target would not be achieved. As a result the ETS would lose credibility and environmental integrity. This in turn could affect New Zealand's international standing. It is however very difficult to measure the impacts arising from a loss of environmental integrity and hence the related scale of any costs (in monetary terms) that this could entail.
40. A summary of these impacts under the status quo and the policy options is presented in the table below.

<b>Option</b>	<b>Impacts</b>	<b>Net impact</b>
<b>Status quo</b>	COMPLIANCE: Lack of market and regulatory certainty, resulting in higher transaction and compliance costs for ETS participants ENVIRONMENTAL: Flexibility in adjusting the auction settings to respond to changes in international and domestic circumstances, providing environmental integrity of the ETS	Not applicable as it is the status quo
<b>Option 1 (Set cap and restriction in Act)</b>	COMPLIANCE: Significant increase in market and regulatory certainty resulting in lower transaction and compliance costs for ETS participants ENVIRONMENTAL: Significant reduction in flexibility, potentially undermining environmental integrity of the ETS	No change from status quo as compliance cost savings are offset by loss of flexibility
<b>Option 2 (Increase notice period)</b>	COMPLIANCE: Significant increase in market and regulatory certainty resulting in lower transaction and compliance costs for ETS participants ENVIRONMENTAL: Significant reduction in flexibility, potentially undermining environmental integrity of the ETS	No change from status quo as compliance cost savings are offset by loss of flexibility
<b>Option 3 (Update regs annually)</b>	COMPLIANCE: Small increase in market and regulatory certainty resulting in lower transaction and compliance costs for ETS participants ENVIRONMENTAL: No loss of flexibility	Better than status quo as compliance cost savings
<b>Option 4 (Backstop cap)</b>	COMPLIANCE: Negligible increase in market and regulatory certainty ENVIRONMENTAL: No loss of flexibility	Same as status quo

*Incidence of impacts of each option*

41. As noted above, ETS participants would benefit from increased market and regulatory certainty. This may, in turn, benefit customers and consumers. The Government would be impacted from the loss of flexibility as explained above.

*Assessment of each option against objectives*

42. In terms of delivering fair share, options 1 and 2 are significantly worse than the status quo as they reduce flexibility to change the auction regulations in response to changes in international and domestic circumstances. This could undermine the credibility and environmental integrity of the ETS. Options 3 and 4 are the same as the status quo as there is no loss of flexibility.
43. In terms of delivering cost-effective emission reductions, options 1, 2 and 3 are better than the status quo as they provide greater market and regulatory certainty. Options 1 and 2 are likely to be significantly better than the status quo. Option 3 would be slightly better than the status quo. Option 4 would have only a negligible increase in certainty compared to the status quo. Increased certainty is likely to improve market transparency and reduce transaction and compliance costs for ETS participants.

44. In terms of long-term economic resilience, there is no difference between the status quo and the policy options.

*Recommendation*

45. On balance, option 3 (update regulations annually) is preferred because they would increase market and regulatory certainty whilst maintaining the same level of flexibility as the status quo.

46. A summary of the assessment of each policy option against the objections is set out in the table below.

<b>Summary assessment of the policy options against the high level objectives relative to the status quo</b>					
	<b>Status quo</b>	<b>Option 1 (Set cap and restriction in Act)</b>	<b>Option 2 (Increase notice period)</b>	<b>Option 3 (Update regulations annually)</b>	<b>Option 4 (Backstop cap)</b>
<b>Delivering fair share</b>	-	XX	XX	-	-
<b>Delivering cost-effective emission reductions</b>	-	✓✓	✓✓	✓	-
<b>Long-term economic resilience</b>	-	-	-	-	-

*Implementation*

47. All of the options would be implemented through amendments to the Act.

*iii. Potential breaches of the cap on NZUs allocated and auctioned*

48. The Government has proposed to auction NZUs up to an overall cap on the number of NZUs allocated and auctioned. NZUs allocated would include allocation provided to emissions-intensive and trade-exposed (EITE) industrial activities, agriculture and in compensation, e.g. for pre-1990 forestry.

*Problem definition*

49. If these proposals are implemented, the Government could breach the cap if the amount of NZUs allocated increases significantly and unexpectedly above the cap. There are a number of scenarios when this could arise:
- an existing EITE industrial activity and/or agriculture activity expanded significantly. **[Withheld under s9(2)(g)(i) and s9(2)(f)(iv)]**.<sup>17</sup>
  - a new large scale EITE industrial activity commenced. **[Withheld under s9(2)(g)(i) and s9(2)(f)(iv)]**<sup>18</sup>
50. A breach of the cap could also arise when NZUs have been auctioned up to the cap but it is subsequently found that too few NZUs were allocated due to an error. Under s86C(5) of the Act additional NZUs have to be allocated to make up the shortfall subsequently breaching the cap.
51. The likelihood of a breach due to a significant increase in allocation is considered to be low given the scale of any increase in an existing activity or a new activity needed to cause a breach. The likelihood is considered to be greater for breaches due to a correction of an error. The likelihood also depends on the level of the emissions reduction target New Zealand adopts (and hence level of cap).
52. A breach of the cap would undermine the environmental integrity of the ETS as the supply of NZUs to the market would be greater than the cap and hence not based on any emissions target.
53. In terms of legal risks that arise from a breach of the cap, the Minister would be in breach of the regulations. **[Withheld under s9(2)(h)]**.
54. In addition, the Government could face reputational risks from a loss of environmental integrity of the ETS.
55. There is an existing measure that could partially address this problem. The Government has also proposed a process for amending the regulations relating to auctioning, including the cap. This includes giving one year's notice before an amendment can be made. In terms of the second scenario, it is likely to take some time before regulations for a new industrial activity could be made. If it is likely that the new activity could breach the cap, then the proposed process for amending the regulations relating to auction could be used to amend the cap. However, this would undermine the purpose and integrity of the cap as it would no longer be based on the target level of

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17 **[Withheld under s9(2)(g)(i) and s9(2)(f)(iv)]**

18 One new industrial activity (or activities) that could commence is the transformation of lignite into diesel, urea or briquettes for heating. The Parliamentary Commissioner for the Environment published a report on this in 2010 (see: [www.pce.parliament.nz/publications/all-publications/lignite-and-climate-change-the-high-cost-of-low-grade-coal](http://www.pce.parliament.nz/publications/all-publications/lignite-and-climate-change-the-high-cost-of-low-grade-coal)). This report estimated that if these three activities commenced then they could produce 7.2 Mt CO<sub>2</sub> per annum. If these activities were highly emissions and got 90 per cent level of assistance then they would get allocation of about 6.5m NZUs per annum. This estimate is however highly dependent on the actual scale of production and emissions intensity, should these activities commence.

emission reductions. This measure is however less likely to work for the first scenario as there is likely to be less advance notice of the potential breach.

*Policy options*

56. Five feasible policy options for addressing breaches of the cap have been identified. An outline of these policy options is set out in the table below. Note that the first three options would address breaches of the cap due to a significant increase in allocation but not the last two options. In addition, the last two options would address breaches of the cap due to a correction of an error but not the first three options. Accordingly, separate assessments of the options are presented below for these two circumstances.

Option	Key features
<b>Status quo</b>	<ul style="list-style-type: none"> <li>• NZUs auctioned subject to the cap</li> <li>• No mechanism for adjusting NZUs allocated to ensure no breach of the cap</li> </ul>
<b>1: Allow for the adjustment to all allocation proportionately to ensure the cap is not breached</b>	<ul style="list-style-type: none"> <li>• Once applications for allocation is submitted, if the calculated amount of allocation for a particular year exceeds the cap then all applications are adjusted proportionately to equal the cap</li> <li>• No NZUs would be auctioned if allocation is equal to the cap</li> </ul>
<b>2: Allow for urgent changes to the cap contained in regulations if it is in the national interest</b>	<ul style="list-style-type: none"> <li>• Section 30H(4) of the Act allows for urgent changes to regulations relating to units if it is in the national interest</li> <li>• This would be applied to regulations related to auctioning</li> </ul>
<b>3: Cap does not limit the amount of NZUs allocated</b>	<ul style="list-style-type: none"> <li>• The cap only limits the number of NZUs available for auction to be a maximum number less any NZUs allocated</li> <li>• This would allow for NZUs allocated to exceed the cap. NZUs allocated would still be part of the cap if allocation is less than the cap</li> <li>• NZUs auctioned would be the difference between the two.</li> </ul>
<b>4: Exclude NZUs provided to correct for an error</b>	<ul style="list-style-type: none"> <li>• NZUs provided to correct for an error would be excluded from the cap.</li> </ul>
<b>5: Include NZUs within the cap for a subsequent year</b>	<ul style="list-style-type: none"> <li>• NZUs would be included within the cap for a subsequent year.</li> </ul>

*a. Breaches due to a significant increase in allocation*

*Impact assessment of each option*

57. Option 1 would increase the environmental integrity of the ETS as it ensures that the cap is not breached and the supply of NZUs remains consistent with the emissions reduction target. However, this option would be a significant change to the current allocation regime, which is uncapped and on an intensity-basis (i.e. based on the level of production). This could potentially reduce the level of allocation business receives, affecting their international competitiveness. Protecting international competitiveness is the primary purpose of allocation. In any case, this would create uncertainty over the level of allocation a business will get as they would not know their allocation until all applications have been processed. This option could also entail additional administration costs as allocation applications may need to be recalculated if in excess of the cap.
58. Like the status quo, option 2 would mean the supply of NZUs to the market is greater than the cap and hence not based on any emissions target, undermining the environmental integrity of the ETS. However, it would ensure that allocation continues to be provided on an uncapped, intensity-basis. This would protect international competitiveness. This option could entail additional administrative costs to Government from making urgent regulation changes.
59. Option 3 would not be capped, consistent with the current intensity-based, uncapped allocation regime. This would therefore continue to protect international competitiveness. However, where allocation is below the cap, then the cap would apply to the amount of NZUs auctioned, preventing the Government from auctioning an unlimited amount of units. In this sense the cap would provide environmental integrity of the ETS and would continue to protect the current purpose and approach to allocation. The benefit of this option is that increases in allocation in accordance with existing systems in the Act would not breach the cap, instead they would simply remove the option for the Government to auction NZUs in that year. This option would be simpler to administer than all of the other options.
60. A summary of the impacts under the status quo and the policy options is presented in the table below.

Option	Impacts	Net impact
<b>Status quo</b>	ECONOMIC: Protects international competitiveness ENVIRONMENTAL: Loss of environmental integrity of the ETS COMPLIANCE: Government at risk of legal challenge for not complying with regulations	Not applicable as it is the status quo
<b>Option 1 (Adjust allocation)</b>	ECONOMIC: Creates uncertainty for business over the level of allocation they get each year. Potentially reduces allocation to businesses, reducing international competitiveness ENVIRONMENTAL: Increases environmental integrity of the ETS COMPLIANCE: No risk of legal challenge. Potential additional administrative costs for Government to recalculate allocation for each applicant	Worse than status quo as economic costs outweigh the environmental and compliance benefits
<b>Option 2 (Urgent changes)</b>	ECONOMIC: No change from status quo ENVIRONMENTAL: No change from status quo COMPLIANCE: No risk of legal challenge. Potential additional administrative costs to Government from making urgent changes.	Better than status quo as compliance costs lower
<b>Option 3 (No limit on allocation)</b>	ECONOMIC: No change from status quo ENVIRONMENTAL: No change from status quo COMPLIANCE: No risk of legal challenge. No additional administrative costs	Better than status quo as compliance costs lower

*Incidence of impacts of each option*

61. Under option 1, business would bear the economic costs from increased uncertainty and the potential for reduced allocation, although as noted above the likelihood of this arising is considered to be low. Under options 1 and 2 the Government would bear the potential for increased compliance costs.
62. Under all options, the Government would benefit from reduced compliance costs from removing the risk of legal challenge. While the compliance costs could be significant, the likelihood of such a challenge arising is considered to be low.

*Assessment of each option against objectives*

63. In terms of delivering fair share, option 1 (adjust allocation) is preferred as it increases environmental integrity of the ETS compared to the status quo and the other options. Options 2 (urgent changes) and 3 (no limit on allocation) are the same as the status quo.
64. In terms of delivering cost-effective emission reductions, overall option 3 is preferred for the reasons set out below.
65. All options would reduce compliance costs from removing the risk of legal challenge compared to the status quo. However, options 1 and 2 could entail other additional compliance costs for the Government through increased administrative costs whereas option 3 would not.
66. However option 1 creates uncertainty for EITE businesses over the level of allocation they could receive each year compared to the status quo. It could also potentially

reduce the amount of allocation business gets, reducing international competitiveness. This does not arise under options 2 and 3.

67. In terms of long-term economic resilience, there is no difference between the status quo and the policy options.

*Recommendation*

68. On balance, option 3 (no limit on allocations) is preferred because this would remove the risk of legal challenge that arises in the status quo, provide certainty for emissions-intensive, trade-exposed businesses and does not entail additional compliance costs.
69. A summary of the assessment of each policy option against the objections is set out in the table below.

<b>Summary assessment of the policy options against the high level objectives relative to the status quo</b>				
	<b>Status quo</b>	<b>Option 1 (Adjust allocation)</b>	<b>Option 2 (Urgent changes)</b>	<b>Option 3 (no limit on allocation)</b>
<b>Delivering fair share</b>	-	✓	-	-
<b>Delivering cost-effective emission reductions</b>	-	X	✓	✓✓
<b>Long-term economic resilience</b>	-	-	-	-

*Implementation*

70. All of the options would be implemented through amendments to the Act.

*b. Breaches due to a correction of an error*

*Impact assessment of each option*

71. Option 4 would reduce the environmental integrity of the ETS as the cap would no longer be based on the emissions reduction target. This would be the same as the loss of environmental integrity under the status quo. This option would however, remove the risk of legal challenge and would not entail any administrative costs.
72. Option 5 would protect the environmental integrity of the ETS. In addition, this option would remove the risk of legal challenge. However this option would entail additional administrative complexity and create uncertainty for ETS participants over the number of NZUs available at the auction and hence their purchasing strategies.
73. A summary of the impacts under the status quo and the policy options is presented in the table below.

Option	Impacts	Net impact
<b>Status quo</b>	ENVIRONMENTAL: Loss of environmental integrity of the ETS due to breach of cap COMPLIANCE: Government at risk of legal challenge for not complying with regulations	Not applicable as it is the status quo
<b>Option 4 (Exclude from the cap)</b>	ENVIRONMENTAL: Loss of environmental integrity due to excluding these NZUs from cap COMPLIANCE: No risk of legal challenge. No additional administrative costs for Government	Better than status quo as compliance costs lower
<b>Option 5 (Include in subsequent year)</b>	ECONOMIC: Uncertainty for ETS participants ENVIRONMENTAL: Maintains environmental integrity COMPLIANCE: No risk of legal challenge. Potential additional administrative costs for Government.	Worse than status quo as increased economic and compliance costs outweigh environmental benefits

*Incidence of impacts of each option*

74. Under option 2 the Government would bear the increased compliance costs. Under both options, the Government would benefit from reduced compliance costs from removing the risk of legal challenge.

*Assessment of each option against objectives*

75. In terms of delivering fair share, option 5 (include in subsequent year) is preferred as it increases the environmental integrity of the ETS compared to the status quo and option 4.
76. In terms of delivering cost-effective emission reductions, overall option 4 is preferred. This is because, whilst both options would reduce compliance costs from removing the risk of legal challenge compared to the status quo, option 5 entails additional compliance costs for the Government through increased administrative costs. In addition, option 5 creates uncertainty for ETS participants over the amount of NZUs available at the auction whereas option 4 would not.
77. In terms of long-term economic resilience, there is no difference between the status quo and the policy options.

*Recommendation*

78. On balance, option 4 (exclude from cap) is preferred because this would remove the risk of legal challenge that arises in the status quo, provide certainty for emissions-intensive, trade-exposed businesses and does not entail additional compliance costs.
79. A summary of the assessment of each policy option against the objections is set out in the table below.

<b>Summary assessment of the policy options against the high level objectives relative to the status quo</b>			
	<b>Status quo</b>	<b>Option 4 (Exclude from cap)</b>	<b>Option 3 (Include in subsequent year)</b>
<b>Delivering fair share</b>	-	-	✓
<b>Delivering cost-effective emission reductions</b>	-	✓	X
<b>Long-term economic resilience</b>	-	-	-

*Implementation*

80. All of the options would be implemented through amendments to the Act.

*iv. NZUs covered by the cap*

81. The Government has proposed to auction NZUs within an overall cap on the amount of NZUs allocated and auctioned. NZUs allocated would include allocation to emissions-intensive, trade-exposed industrial activities, agriculture and as compensation (e.g. pre-1990 forestry).

*Problem definition*

82. There are three problems with the cap as proposed. The first problem that arises is the cap would include NZUs allocated as compensation to pre-1990 forestry. This type of allocation will be a one-off allocation in 2013. **[Withheld under s9(2)(g)(i) and s9(2)(f)(iv)]**. This will mean the environmental integrity of the ETS will be undermined in that year. The problem is whether the cap should include this type of allocation given that it is one-off and will likely breach the cap.
83. The cap, as proposed, would exclude all NZUs issued in general, or transferred for any other reason, such as:
- NZUs transferred for removal activities (e.g. post-1989 forestry)
  - NZUs purchased from the Government under the \$25 fixed price option. For example, between 1 July and 31 December 2010, about 37,000 NZUs were purchased under the fixed price option. On a full calendar year and a full obligation basis, this would equate to about 150,000 NZUs per annum
  - **[Withheld under s9(2)(b)(ii) & s9(2)(ba)]**.<sup>19</sup>
84. NZUs provided for removal activities are excluded because they relate to a reduction in emissions rather than actual emissions. Given that the purpose of the ETS is to incentivise emission reductions, including by removal activities, then capping these NZUs would undermine this purpose. Consistent with the accounting rules under the Kyoto Protocol, these units should be used to offset any emissions above the target (and hence the cap) to ensure that the target is achieved. Therefore, these NZUs should be excluded from the cap.
85. NZUs sold under the \$25 fixed price option are excluded because this option is intended to protect ETS participants from excessive carbon prices by allowing the Government to sell an unlimited amount of NZUs at \$25 each. Capping these NZUs would reduce the level of protection this option is intended to provide. However, based on previous experience, a small number of NZUs could be supplied under the fixed option that would be excluded to the cap. The second problem that arises is, whether, in those years that the carbon price is below the fixed price option, these units should be included in the cap.
86. However, there is a timing issue with including NZUs sold under the fixed price option into the cap. This is because the number of NZUs sold under the fixed price option would not be known until ETS participants surrender units to meet their obligations. However, by then the Government would have auctioned NZUs up to the cap for that year.
87. The third problem that arises is **[Withheld under s9(2)(b)(ii) & s9(2)(ba)]**.

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<sup>19</sup> This estimate is based on the ETS as currently legislated. Any changes to the ETS design settings, especially the transition phase, will impact on this estimate.

*Policy options*

88. Four policy options for including these NZUs in the cap have been identified. An outline of these policy options is set out in the table below. Given the slightly different characteristics of the problems identified, then no one option addresses all three problems. Therefore, a range of options may be preferred to the status quo. Option 1 would apply to problems two and three. Option 2 would only address the second problem, option 3 would only address the third problem and option 4 would only address the first problem only.

Option	Key features
<b>Status quo</b>	<ul style="list-style-type: none"> <li>NZUs issued under <b>[Withheld under s9(2)(b)(ii) &amp; s9(2)(ba)]</b> the fixed price option when the carbon price is below the fixed price are not included in the cap</li> <li>NZUs allocated as compensation to pre-1990 forestry are included in the cap</li> </ul>
<b>1: Set aside an amount of NZUs within the cap (i.e. a buffer)</b>	<ul style="list-style-type: none"> <li>A number of NZUs within the cap are set aside to cover those NZUs issued under <b>[Withheld under s9(2)(b)(ii) &amp; s9(2)(ba)]</b> the fixed price option when the carbon price is below the fixed price (i.e. a buffer)</li> <li>Any NZUs in the buffer not used in a particular year are carried over to the cap for the following year</li> </ul>
<b>2: Include NZUs issued under the fixed price option within the cap in a subsequent year</b>	<ul style="list-style-type: none"> <li>NZUs issued under the fixed price option when the carbon price is below the fixed price in a particular year are subtracted from the cap in the following year</li> </ul>
<b>3: [Withheld under s9(2)(b)(ii) &amp; s9(2)(ba)]</b>	<ul style="list-style-type: none"> <li><b>[Withheld under s9(2)(b)(ii) &amp; s9(2)(ba)]</b></li> </ul>
<b>4: Exclude NZUs allocated as compensation to pre-1990 forestry</b>	<ul style="list-style-type: none"> <li>NZUs allocated as compensation are explicitly excluded from the cap</li> </ul>

*Impact assessment of each option*

89. Options 1 to 3 improve the environmental integrity of the ETS compared to the status quo as it ensures that the number of NZUs supplied to the market reflects the level of the emissions target. However, given that the number of NZUs provided under **[Withheld under s9(2)(b)(ii) & s9(2)(ba)]** the fixed price option is likely to be small relative to the size of the cap, any gain in environmental integrity is likely to be very small. **[Withheld under s9(2)(g)(i) and s9(2)(f)(iv)]**. **[Withheld under s9(2)(b)(ii) & s9(2)(ba)]**. Under option 4 environmental integrity of the ETS is likely to be the same as the status quo as in both cases integrity is undermined (either through breaching the cap in the status quo or through excluding them from the cap under option 4).
90. Options 1 and 2 create uncertainty for ETS participants in terms of the amount of NZUs auctioned each year. For example, option 1 could result in too few NZUs being auctioned if the buffer is not used. Both options could lead to frequent adjustments to the cap.
91. Options 1 to 3 create additional administrative complexity and costs compared to the status quo. Under option 1 it will be necessary to estimate the amount of the buffer not used in each year and to adjust the amount of NZUs auctioned the following year accordingly. Under option 2, it will be necessary to specify in the Act which international carbon price is to be used to determine whether the price cap is above or below this. This will then require annual assessment by officials to assess whether NZUs sold

under the fixed price option should be included in the cap for the following year. The additional complexity and costs under option 3 are likely to be negligible compared to the status quo and substantially less than options 1 and 2. Option 4 would slightly reduce administrative complexity and costs in 2013 compared to the status quo.

92. A summary of the impacts under the status quo and the policy options is presented in the table below.

<b>Option</b>	<b>Impacts</b>	<b>Net impact</b>
<b>Status quo</b>	ENVIRONMENTAL: Marginal loss of environmental integrity of the ETS	Not applicable as it is the status quo
<b>Option 1 (Buffer)</b>	ECONOMIC: Greater uncertainty for ETS participants over the level of the cap and hence the number of NZUs available compared to the status quo COMPLIANCE: Additional compliance costs compared to status quo ENVIRONMENTAL: Marginal improvement of environmental integrity compared to status quo	Worse than status quo as economic and compliance costs outweigh environment benefits
<b>Option 2 (Include in cap in subsequent year)</b>	ECONOMIC: Greater uncertainty for ETS participants over the level of the cap and hence the number of NZUs available compared to the status quo COMPLIANCE: Significant additional compliance costs compared to status quo ENVIRONMENTAL: Marginal improvement of environmental integrity compared to status quo	Worse than status quo as economic and compliance costs outweigh environment benefits
<b>Option 3 [Withheld under s9(2)(b)(ii) &amp; s9(2)(ba)]</b>	ECONOMIC: As status quo COMPLIANCE: Negligible increase in compliance costs compared to status quo but much less than options 1 and 2 ENVIRONMENTAL: Marginal improvement of environmental integrity compared to status quo	Slightly better than status quo environmental benefit outweighs additional compliance costs
<b>Option 4 (Exclude allocation as compensation)</b>	ECONOMIC: As status quo COMPLIANCE: Slight reduction in compliance costs in 2013 compared to status quo ENVIRONMENTAL: As status quo	Better than status quo as reduced compliance costs.

*Incidence of impacts of each option*

93. The Government would benefit from improvements in environmental integrity but would incur the additional compliance costs. ETS participants would incur any increase in costs from greater uncertainty.

*Assessment of each option against objectives*

*Problem 1: NZUs allocated as compensation*

94. The status quo and policy option 4 are relevant for this policy problem assessment.
95. In terms of delivering fair share, neither the status quo or policy option is preferred as both similarly undermine environmental integrity of the ETS in 2013.
96. In terms of delivering cost-effective emission reductions, option 4 is preferred to the status quo as it would reduce administrative complexity and costs in 2013.

97. In terms of long-term economic resilience, there is no difference between the status quo and the policy option.

*Problem 2: NZUs sold under the fixed price option at below the prevailing international price*

98. The status quo and policy options 1 and 2 are relevant for this policy problem assessment.

99. In terms of delivering fair share, options 1 and 3 are preferred as these would marginally increase environmental integrity compared to the status quo.

100. In terms of delivering cost-effective emission reductions, the status quo is preferred as options 1 and 3 would increase uncertainty for ETS participants and entail additional administrative complexity compared to the status quo.

101. In terms of long-term economic resilience, there is no difference between the status quo and the policy options.

*Problem 3: [Withheld under s9(2)(b)(ii) & s9(2)(ba)]*

102. The status quo and policy options 1 and 3 are relevant for this policy problem assessment.

103. In terms of delivering fair share, options 1 and 3 are preferred as these options would increase environmental integrity compared to the status quo.

104. In terms of delivering cost-effective emission reductions, the status quo is marginally preferred to option 3 due to this option entailing additional, albeit negligible, administrative costs compared to the status quo. The status quo is preferred to option 1 as this option entails significant administrative complexity and costs compared to the status quo.

105. In terms of long-term economic resilience, there is no difference between the status quo and the policy options.

*Recommendations*

106. On balance, the following recommendations are reached for each of the policy problems identified. For NZUs allocated as compensation, policy option 4 is preferred as this will reduce administrative complexity and costs. For NZUs sold under the fixed price option when the international price is below the fixed price, the status quo is preferred because of the relatively small amount of NZUs provided, and the uncertainty and administrative complexity created by including these NZUs in a cap. **[Withheld under s9(2)(b)(ii) & s9(2)(ba)].**

107. A summary of the assessment of each policy option against the objections is set out in the table below.

<b>Summary assessment of the policy options against the high level objectives relative to the status quo</b>					
	<b>Status quo</b>	<b>Option 1 (Buffer)</b>	<b>Option 2 (Include in cap in subsequent year)</b>	<b>Option 3: [Withheld under s9(2)(b)(ii) &amp; s9(2)(ba)]</b>	<b>Option 4: (Exclude NZUs allocated as compensation)</b>
<b>Delivering fair share</b>	-	✓	✓	✓	-

<b>Delivering cost-effective emission reductions</b>	-	X	X	-	✓
<b>Long-term economic resilience</b>	-	-	-	-	-

## *B. Transition phase measures*

### *i One-for-two surrender obligation*

#### *Status quo*

108. Under the ETS as currently legislated, ETS participants from the liquid fossil fuels, stationary energy and industrial processes sectors are required to surrender only one emission unit for every two tonnes of emissions until the end of 2012. From 2013, all ETS participants are required to assume full surrender obligation, i.e. surrender one unit for one tonne of emissions.

#### *Problem definition*

109. Household and business costs will increase significantly in 2013 following the expiry of the one-for-two surrender obligation. See RIS (Part 1) for more details of the problem definition.

#### *Policy options*

110. In RIS (Part 1), one policy option was considered, namely extend and gradually phase-out the one-for-two surrender obligation, as recommended by the Panel. Under this option, the liquid fossil fuels, stationary energy and industrial processes sectors, as well as the waste and synthetic greenhouse gases sectors, would be required to surrender two units for every three tonnes of emissions in 2013, five units for every six tonnes in 2014, and one unit for one tonne from 2015. However, no policy option was preferred. See RIS (Part 1) for an assessment of this option.

#### *Impact assessment*

111. The Government has proposed to adopt the Panel's recommendation to phase out the one-for-two surrender obligation gradually between 2013 and 2015, and consulted on this proposal. The RIA set out in RIS (Part 1) has been reassessed in the light of the consultation responses. This reassessment is set out below.
112. A majority of those who commented on the one-for-two surrender obligation supported the proposal. Some submitters (mainly emitters) preferred extending the one-for-two surrender obligation further than proposed because of the need to moderate the costs of the ETS given limited progress towards an international agreement and limited effort by other countries to implement emissions trading schemes. Those who opposed the proposal were concerned about weakened incentives to reduce emissions, the cost to taxpayers and reduced demand for emission units.
113. In the light of the consultation responses, the option of extending and maintaining the one-for-two surrender obligation beyond 2012 has been considered. The following impacts have been identified for this option (based on a \$6 carbon price):
- **Economic:** Costs for businesses and households would be reduced by half compared to the status quo. The table below compares the costs to businesses and households under the status quo, this policy option and the proposed policy option. Given the low current carbon price and the expectation that prices will remain low in the short term, the impact on businesses and households of the carbon price in the short term is likely to be small as a proportion of overall costs. This therefore reduces the impact of extending the one-for-two surrender obligation beyond 2012 relative to the status quo.

	Status quo	Extend and gradually phase out two for-one to 2015	Extend two-for-one beyond 2012
<b>Estimated impact on total business expenditure on electricity and fuels</b>			
2012	\$84m	\$84m	\$84m
2013	\$169m	\$113m	\$84m
2014	\$169m	\$140m	\$84m
2015	\$169m	\$169m	\$84m
<b>Estimated impact on average household expenditure on electricity and fuels</b>			
2012	\$32	\$32	\$32
2013	\$64	\$43	\$32
2014	\$64	\$53	\$32
2015	\$64	\$64	\$32

- Fiscal: Fiscal cost of \$260m over the forecast period to 2015/16 compared to the status quo. This compares to a fiscal cost of \$79m for the option of extending and gradually phasing out the one-for-two obligation to 2015.
- Environmental: Extending the two-for-one surrender obligation beyond 2012 would reduce certainty for emitters about when they would face full obligations which may reduce incentives to reduce emissions.
- Compliance: There would be additional administrative costs compared to the status quo and the option of extending and gradually phasing out the one-for-two obligation to 2015.

114. A summary of the impacts for the status quo and policy option presented in RIS (Part 1) and the policy option above is set out in the table below.

<b>Status quo (full surrender obligation from 2013)</b>	ECONOMIC: Increase in costs for ETS participants, a proportion of which are likely to be passed on to households and other businesses (e.g. though higher fuel and electricity prices) ENVIRONMENTAL: Business face the full incentive to reduce emissions
<b>Option 1 (gradual phase-out of two-for-one surrender obligation)</b>	ECONOMIC: ETS participants face lower costs compared to status quo ENVIRONMENTAL: Undermine incentives to reduce emissions compared to the status quo COMPLIANCE: Additional administrative costs compared to the status quo FISCAL: Additional fiscal costs compared to status quo
<b>Option 2: extend and maintain two-for-one surrender obligation beyond 2012</b>	ECONOMIC: ETS participants face lower costs compared to status quo and option 1 ENVIRONMENTAL: Undermine incentives to reduce emissions compared to the status quo and option 1 COMPLIANCE: Additional administrative costs compared to the status quo and option 1 FISCAL: Additional fiscal costs compared to status quo and option 1

ii. *Fixed price option*

*Status quo*

115. Under the ETS as currently legislated, the \$25 fixed price option will expire at the end of 2012. See RIS (Part 1) for more details of the status quo.

*Problem definition*

116. There is a risk of sudden and unexpected spikes in carbon prices after 2012, given international market uncertainty. This could result in businesses and households facing excessive costs. See RIS (Part 1) for more details of the problem definition.

*Policy options*

117. In RIS (Part 1), three policy options were considered:

- extend and increase the fixed price option by \$5 per annum from 2013 (the Panel's recommendation)
- align the fixed price option with the price ceiling in Australia
- extend and maintain the fixed price option at \$25 until at least 2015.

118. However, no policy option was preferred. See RIS (Part 1) for an assessment of these options.

*Impact assessment*

119. The Government has proposed to extend and maintain the fixed price option at \$25 until at least 2015, and consulted on this proposal. The RIA set out in RIS (Part 1) has been reassessed in the light of the consultation responses. This reassessment is set out below.

120. The majority of submitters, mainly foresters and NGOs, disagreed with the Government's proposal. Some of these submitters preferred the Panel's recommendation of extending and increasing the fixed price option by \$5 per annum from 2013. Others preferred removing the fixed price option, in line with current ETS legislation, because it is unnecessary given the low current carbon price and it would unfairly cap the profits of foresters at \$25 as there is no cap on their future liabilities. Some of those that supported the proposal, mainly emitters, said they would prefer extending the \$25 fixed price option beyond 2015 in order to provide greater certainty.

121. These other policy options that some submitters preferred instead of the Government's proposed option were considered in RIS (Part 1). No new information on the impacts of these options was provided by submitters. Accordingly, the RIA in RIS (Part 1) remains valid.

*iii. Ban on exports of non-forestry NZUs*

*Status quo*

122. Under the ETS as currently legislated, there is a ban on the export of NZUs from non-forestry sectors until the end of 2012. This ban is intended to mitigate the arbitrage risk associated with the \$25 fixed price option. See RIS (Part 1) for more details of the status quo.

*Problem definition*

123. If the price cap is extended beyond 2012 then an arbitrage risk arises. See RIS (Part 1) for more details of the problem definition.

*Policy options*

124. In RIS (Part 1), two policy options were considered:
- ban NZU exports from non-forestry sectors until the fixed price option is removed
  - no ban on NZU exports from the non-forestry sectors even if a fixed price option remains.
125. The preferred policy option was to ban NZUs exports until the fixed price option is removed. See RIS (Part 1) for an assessment of these options.

*Impact assessment*

126. As noted above, there has been a consultation on the preferred policy option. The RIA set out in RIS (Part 1) has been reassessed in the light of the consultation responses. This reassessment is set out below.
127. Only four submitters commented on this proposal. Three supported the proposal and noted that it benefited the forestry sector and would protect the Government in the event that the international carbon price exceeds the \$25 fixed price. The submitter disagreeing with the proposal said that holders of NZUs should be able to exploit arbitrage opportunities.
128. In the light of these responses, the RIA and the preferred policy option in RIS (Part 1) remains valid.

## *C Industrial allocation*

### *i. Fugitive coal seam methane*

#### *Status quo*

129. The list of eligible emissions sources for determining eligibility and allocative baselines for industrial allocation is restricted to the direct use of coal, natural gas, used/waste oil and geothermal fluid and industrial process emissions. Fugitive Coal Seam Methane (FCSM) emissions are currently excluded from the list, even though coal miners are required under the ETS to surrender units in respect of any coal seam gas associated with mining. The rationale for the exclusion is that industrial allocation targets assistance at those emission sources that are likely to be most material for most companies, and officials found that including FCSM emissions would be immaterial for most companies.
130. The Government did not put forward any proposal to change the industrial allocation settings. However, during the consultation on the Government's proposed changes, some submitters commented that FCSM emissions should be included as an eligible emission source for industrial allocation purposes.

#### *Problem definition*

131. During the consultation, some submitters argued that FCSM should be included as an emission source eligible for industrial allocation because their businesses face ETS costs as a result of FCSM emissions, and there are few practical abatement options to reduce FCSM emissions. According to these submitters, excluding FCSM emissions either causes their activities to be ineligible for industrial allocation, or results in a lower allocative baseline for their activities.
132. Furthermore, the Australian Government will implement the Coal Sector Jobs Package to provide assistance over six years to the most emissions-intensive coal mines, while the New Zealand Government does not offer a similar package or industrial allocation to the coal mining sector. Therefore, industrial allocation in its current form might not adequately mitigate the impact of the ETS on the international competitiveness of businesses facing ETS costs associated with FCSM emissions, namely coal miners and coal users.

#### *Policy options*

133. The policy options for mitigating the competitiveness risks for businesses facing ETS costs associated with FCSM emissions have been identified. An outline of these policy options is set out in the table below.

Option	Status quo	1: In allocation calculations for coal users, include FCSM for underground mining purposes	2: In allocation calculations for coal mining, include FCSM for underground mining purposes
<b>Key features</b>	<ul style="list-style-type: none"> <li>For the purpose of determining eligibility and allocative baselines for industrial allocation, FCSM emissions are not an eligible emission source.</li> </ul>	<ul style="list-style-type: none"> <li>For the purpose of determining eligibility and allocative baselines for industrial allocation to coal users, FCSM for underground mining purposes would be an eligible emission source.</li> <li>Coal users, such as <b>[Withheld under s9(2)(b)(ii)]</b> and some horticultural businesses, might become eligible for more allocation, and potentially more activities would become eligible for allocation.</li> </ul>	<ul style="list-style-type: none"> <li>For the purpose of determining eligibility and allocative baselines for industrial allocation to coal mining, FCSM for underground mining purposes would be an eligible emission source,</li> <li>Underground coal mining might become eligible for industrial allocation.</li> </ul>

*Impact assessment of each option*

134. A summary of the impacts under the status quo and the policy options is presented in the table below.

Option	Impacts	Net impact
<b>Status quo</b>	ECONOMIC: No mitigation of the ETS costs associated with FCSM emissions, and therefore arguably not adequately mitigating competitiveness risks.	Not applicable as it is the status quo
<b>Option 1 (In allocation calculations for coal users, include FCSM for underground mining purposes)</b>	ECONOMIC: Mitigation of ETS costs for coal users, but mitigating effect is unlikely to be material for most firms COMPLIANCE: Small compliance costs, as new data rules would need to be developed in consultation with stakeholders. ENVIRONMENTAL: Less incentive to reduce emissions, as businesses would have less incentive to switch from using coal to adopting less emissions-intensive energy sources. Negative impact on environment because of encouragement of underground coal mining. FISCAL: More fiscal costs because of more industrial allocation and administrative costs associated with changing data rules.	No significant change from status quo because economic benefits are offset by environmental, fiscal and compliance costs
<b>Option 2 (In allocation calculations for coal mining, include FCSM for underground mining purposes)</b>	ECONOMIC: Mitigation of ETS costs for coal miners, but it is unclear whether coal users would benefit, depending on the amount of price reduction coal miners would pass on to users COMPLIANCE: Small compliance costs, as new data rules would need to be developed in consultation with stakeholders, and data would need to be collected from the coal mining sector to determine eligibility. Slightly more compliance costs than option 1. ENVIRONMENTAL: Less incentive to reduce emissions than the status quo and option 1, as businesses would have less incentive to switch from using coal to adopting less emissions-intensive energy sources. Negative impact on environment because of encouragement of underground coal mining. FISCAL: More fiscal costs than the status quo and option 1 because of more industrial allocation and administrative costs associated with changing data rules and collecting data from coal mining sector.	Worse than status quo because environmental, fiscal and compliance costs outweigh economic benefits

*Incidence of impacts of each option*

135. Option 1 would benefit some businesses using coal as an energy source, as they could become eligible for industrial allocation or receive more industrial allocation. This may, in turn, benefit consumers. The Government would be impacted by the costs associated with changing data rules and providing more industrial allocation.
136. Option 2 would benefit underground coal miners. This may in turn benefit businesses and households that use coal from underground mines. The Government would be impacted by the costs associated with changing data rules and providing more industrial allocation.

*Assessment of each option against objectives*

137. In terms of delivering fair share, option 1 (in allocation calculations for coal users, include FCSM for underground mining purposes) and option 2 (in allocation calculations for coal mining, include FCSM for underground mining purposes) are worse than the status quo, as they could undermine New Zealand's ability to meet future emissions reduction targets. Under these options, businesses would have less incentive to reduce emissions by switching from using coal to adopting less emissions-intensive energy sources.
138. In terms of delivering cost-effective emission reductions, option 1 is marginally better than the status quo, while option 2 is worse than the status quo. Option 1 would mitigate ETS-related costs for coal users, although the mitigating effect would be immaterial for most firms. The disadvantages of option 1 are that it would require changing the data rules, resulting in some administrative costs for the Government and compliance costs for businesses who are coal users. Option 1 would also result in a fiscal cost (excluding administrative cost) of less than \$2 million per annum at a carbon price of \$6, as more industrial allocation would be given to existing activities, and potentially new activities could become eligible for industrial allocation.
139. Option 2 could mitigate ETS-related costs for coal miners, but it is unclear whether it would mitigate ETS-related costs for coal users, as it would depend on the amount of price reduction that coal miners would pass on coal users. Option 2 would also result in higher fiscal and administrative costs than would option 1. Under option 2, as well as developing new data rules, it is likely that officials would need to undertake a more extensive data collection process, as there has not been any call for data from the coal mining sector for the purpose of assessing its eligibility for industrial allocation.
140. In terms of long-term economic resilience, options 1 and 2 are better than the status quo. Both options would make the industrial allocation rules more equitable in the sense that businesses facing ETS costs associated with FCSM emissions would not be disadvantaged. They could also reduce long-term international competitiveness risks, as some businesses could receive more industrial allocation or become eligible for industrial allocation. However, both options would reduce the incentive for the development of new emission abatement technologies. They could also have a negative impact on the environment because they could encourage underground mining.

*Recommendation*

141. On balance, option 1 (in allocation calculations for coal users, include FCSM for underground mining purposes) is preferred because it would mitigate the international competitiveness risks for coal users, and would make the industrial allocation rules more equitable to coal users. However, officials note that the impact of this option would be immaterial for most firms.
142. A summary of the assessment of each policy option against the objections is set out in the table below.

<b>Summary assessment of the policy options against the high level objectives relative to the status quo</b>			
	<b>Status quo</b>	<b>Option 1 (In allocation calculations for coal users, include FCSM for underground mining purposes)</b>	<b>Option 2 (In allocation calculations for coal mining, include FCSM for underground mining purposes)</b>
<b>Delivering fair share</b>	-	X	X
<b>Delivering cost-effective emission reductions</b>	-	✓	-
<b>Long-term economic resilience</b>	-	✓	✓

*Implementation*

143. Option 1 would be implemented through amendments to the Act and the Climate Change (Eligible Industrial Activities) Regulations 2010. Approximately \$50,000 would be needed to seek expert advice on re-evaluating allocative baselines, and to update the administrative systems.

*ii. Liquid fossil fuels for stationary energy use*

*Status quo*

144. The list of eligible emissions sources for determining eligibility and allocative baselines for industrial allocation is restricted to the direct use of coal, natural gas, used/waste oil and geothermal fluid and industrial process emissions. Emissions from liquid fossil fuels (LFF) are currently excluded from the list, even though fuel suppliers who take fuel from the refinery or who import it are generally required to surrender emission units to cover the emissions that result from the fuel they buy. The rationale for the exclusion is that industrial allocation targets assistance at those emission sources that are likely to be most material for most companies, and officials found that including LFF emissions would be immaterial for most companies. In addition, officials considered that the administrative costs associated with including LFF emissions outweighed the benefits from providing additional allocation to activities with emissions from these sources.
145. The Government did not put forward any proposal to change the industrial allocation settings. However, during the consultation on the Government's proposed changes, some submitters commented that emissions from stationary energy use of LFF emissions should be included as an eligible emission source for industrial allocation purposes.

*Problem definition*

146. During the consultation, some submitters argued that emissions from stationary energy use of LFF (such as emissions from LFF used for the provision of industrial heat) should be included as an emission source eligible for industrial allocation because LFF used in the production process generate a significant proportion of their emissions, and eligibility assessments and allocative baseline should reflect all major emission sources. According to these submitters, excluding emissions from stationary energy use of LFF either causes their activities to be ineligible for industrial allocation, or results in a lower allocative baseline for their activities.
147. Furthermore, in Australia, emissions from LFF for the use of domestic aviation, domestic shipping, rail transport, and non-transport use will be an eligible emission source for industrial allocation. Therefore, industrial allocation currently might not adequately mitigate the impact of the ETS on the international competitiveness of businesses facing ETS costs associated with emissions from stationary energy use of LFF.

*Policy options*

148. Two policy options for mitigating the competitiveness risks for businesses facing ETS costs associated with emissions from stationary use of LFF has been identified. Outlines of these policy options are set out in the table below.

Option	Status quo	1: In allocation calculations, include emissions from stationary energy use of LFF	2: In allocation calculations, include emissions from stationary energy and specified transportation uses of LFF
<b>Key features</b>	<ul style="list-style-type: none"> <li>For the purpose of determining eligibility and allocative baselines for industrial allocation, LFF emissions are not an eligible emission source.</li> </ul>	<ul style="list-style-type: none"> <li>For the purpose of determining eligibility and allocative baselines for industrial allocation, emissions from stationary energy use of LFF would be an eligible emission source.</li> <li>Potentially more activities, such as petroleum refining, gold mining and more horticultural activities, would become eligible for allocation.</li> </ul>	<ul style="list-style-type: none"> <li>For the purpose of determining eligibility and allocative baselines for industrial allocation, LFF emissions would be an eligible emission source.</li> <li>Potentially more activities, such as petroleum refining, gold mining, fishing, farming and more horticultural activities, would become eligible for allocation.</li> </ul>

*Impact assessment of each option*

149. A summary of the impacts under the status quo and the policy options is presented in the table below.

Option	Impacts	Net impact
<b>Status quo</b>	ECONOMIC: No mitigation of the ETS costs associated with emissions from stationary use of LFF, and therefore arguably not adequately mitigating competitiveness risks.	Not applicable as it is the status quo
<b>Option 1 (In allocation calculations, include emissions from stationary energy use of LFF)</b>	ECONOMIC: Mitigation of ETS costs for businesses using LFF for stationary energy, but mitigating effect is unlikely to be material for most firms COMPLIANCE: Significant compliance costs, as new data rules and new activity definitions would need to be developed in consultation with stakeholders. ENVIRONMENTAL: Less incentive to reduce emissions, as businesses would have less incentive to become more fuel efficient or adopt less emissions-intensive energy sources. FISCAL: More fiscal costs because of more industrial allocation and administrative costs associated with changing data rules and activity definitions, and collecting data from potential new activities.	Worse than status quo because environmental, fiscal and compliance costs outweigh economic benefits
<b>Option 2 (In allocation calculations, include emissions from stationary energy and specified transportation uses of LFF)</b>	ECONOMIC: Mitigation of ETS costs for businesses using LFF, but could create distortions in domestic transport market COMPLIANCE: Significant compliance costs, as new data rules and new activity definitions would need to be developed in consultation with stakeholders. ENVIRONMENTAL: Less incentive to reduce emissions, as businesses would have less incentive to become more fuel efficient or adopt less emissions-intensive energy sources. FISCAL: More fiscal costs because of more industrial allocation and administrative costs associated with changing data rules and activity definitions, and collecting data from potential new activities.	Worse than status quo because environmental, fiscal and compliance costs outweigh economic benefits

*Incidence of impacts of each option*

150. Option 1 would benefit some businesses using LFF for stationary energy, as they could become eligible for industrial allocation or receive more industrial allocation. This may, in turn, benefit consumers. The Government would be impacted by the costs associated with changing data rules and activity definitions, collecting data from potential new activities and providing more industrial allocation.
151. Option 2 would benefit some businesses using LFF, as they could become eligible for industrial allocation or receive more industrial allocation. This may, in turn, benefit consumers. The Government would be impacted by the costs associated with changing

data rules and activity definitions, collecting data from potential new activities and providing more industrial allocation.

*Assessment of each option against objectives*

152. In terms of delivering fair share, option 1 (in allocation calculations, include emissions from stationary energy use of LFF) and option 2 (in allocation calculations, include emissions from stationary energy and specified transportation uses of LFF) are worse than the status quo, as they could undermine New Zealand's ability to meet future emissions reduction targets. Under these options, businesses would have less incentive to reduce emissions by switching to less emissions-intensive energy sources or improving their fuel efficiency.
153. In terms of delivering cost-effective emission reductions, options 1 and 2 are worse than the status quo. Although option 1 would mitigate ETS-related costs for businesses using LFF for stationary energy purposes, its mitigating effect would be immaterial for most firms. The main disadvantage of option 1 is administrative complexity. As observed in Australia, it would be particularly complex to distinguish between stationary use of LFF and other uses of LFF, so activity definitions for industrial allocation would have to be more tightly drafted and complex. Redrafting activity definitions would be a time-consuming exercise, as officials would need to seek agreement from the sectors concerned, which would require a lengthy consultation, data collection and verification process. Apart from redrafting activity definitions, officials would also need to revise the data rules in consultation with stakeholders. Option 1 would also result in fiscal costs<sup>20</sup>, as more industrial allocation would be given to existing activities, and potentially new activities could become eligible for industrial allocation.
154. Option 2 would mitigate ETS-related costs for businesses using LFF. However, it would raise significant complexities in decisions relating to activity boundaries and fair treatment across sectors. This is due in large part to the number of firms potentially affected, the variable sizes of firms, and the operational structure of the firms (e.g. high use of contractors and external providers) all of which could contribute to potential distortions in the domestic transport market. For example, as some firms own vehicle fleets while others lease them, option 2 could potentially create unfairness between firms and complicate administration of the allocation process. Option 2 would also complicate the activity-based approach to industrial allocation, as this approach is intended to provide assistance for emissions-intensive transformation of inputs into outputs, not for moving inputs or outputs from place to place. All these complications mean that adopting option 2 would require a lengthy process of redrafting activity definitions, revising data rules and collecting data. Option 2 would also result in more fiscal costs than option 1, as option 2 would increase industrial allocation by a greater amount.
155. In terms of long-term economic resilience, options 1 and 2 are better than the status quo. Both options could make the industrial allocation rules more equitable in the sense that businesses facing ETS costs associated with LFF emissions would be less disadvantaged. Both options could also reduce long-term international competitiveness risks, as some businesses could receive more industrial allocation or become eligible

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<sup>20</sup> The fiscal cost (excluding administrative cost) of option 1 (in allocation calculations, include emissions from stationary energy use of LFF) is estimated to be roughly \$4 million per annum at a carbon price of \$6 (once all ETS participants assume full surrender obligation). **[Withheld under s9(2)(b)(ii) & s9(2)(ba)].**

for industrial allocation. However, both options would reduce the incentive for the development of new emission abatement technologies.

156. A summary of the assessment of each policy option against the objections is set out in the table below.

<b>Summary assessment of the policy options against the high level objectives relative to the status quo</b>			
	<b>Status quo</b>	<b>Option 1 (in allocation calculations, include emissions from stationary energy use of LFF)</b>	<b>Option 2 (In allocation calculations, include emissions from stationary energy and specified transportation uses of LFF)</b>
<b>Delivering fair share</b>	-	X	X
<b>Delivering cost-effective emission reductions</b>	-	X	X X
<b>Long-term economic resilience</b>	-	✓	✓

*Implementation*

157. The policy options would be implemented through an amendment to the Act.

iii. *Phase-out of industrial allocation*

*Status quo*

158. At present, industrial allocation will decline by 1.3 percent per annum from 2013 for eligible industrial activities.

*Problem definition*

159. During the consultation on the Government's proposals, some submitters suggested that the phase-out of industrial allocation should be delayed until certain conditions are met, e.g. similar cost of carbon is imposed in other major trading countries. Their reasons include:

- international competitiveness risks
- ongoing weakness in economy
- worldwide delay in implementing carbon pricing mechanisms
- limited scope for technology or process changes to drive efficiency improvements and therefore emissions reduction.

160. There is therefore an issue as to whether the phase-out of industrial allocation should be delayed to mitigate international competitiveness risks.

*Policy options*

161. A policy option that could mitigate international competitiveness risks by delaying the phase-out of industrial allocation has been identified. An outline of this policy option is set out in the table below.

<b>Option</b>	<b>Key features</b>
<b>Status quo</b>	<ul style="list-style-type: none"><li>• Industrial allocation will decline by 1.3 percent per annum from 2013 and agricultural allocation decline by 1.3 percent per annum from 2016.</li></ul>
<b>1: Suspending phase-out of allocation until 2015</b>	<ul style="list-style-type: none"><li>• The level of assistance for highly emissions-intensive, trade-exposed activities will remain at 90 percent until 2015.</li><li>• The level of assistance for moderately emissions-intensive, trade-exposed activities will remain at 60 percent until 2015.</li><li>• Industrial allocation will decline by 1.3 percentage points per annum on a straight-line basis from 2016.</li></ul>

*Impact assessment of each option*

162. A summary of the impacts under the status quo and the policy options is presented in the table below.

Option	Impacts	Net impact
<b>Status quo</b>	ECONOMIC: Businesses and households will be exposed to higher carbon costs, as industrial allocation starts to phase out in 2013.	Not applicable as it is the status quo
<b>Option 1 (Suspending phase-out of allocation until 2015)</b>	ECONOMIC: Mitigates carbon costs for businesses and households by an immaterial amount on average. ENVIRONMENTAL: Dampens incentives to invest in emission reductions in the short term. FISCAL: Higher fiscal cost because of more industrial allocation.	Worse than status quo because environmental and fiscal costs outweigh economic benefits

*Incidence of impacts of each option*

163. Option 1 would affect businesses that receive industrial allocation, and may in turn affect consumers. If this option was adopted, the Government would need to update the administrative system for industrial allocation.

*Assessment of each option against objectives*

164. In terms of delivering fair share, the status quo is better than option 1 (suspending phase-out of allocation until 2015). Option 1 may dampen businesses' incentive to become more carbon-efficient in the short term, particularly if businesses see the suspension as a signal that industrial allocation will not be phased out. This could undermine New Zealand's ability to meet future emissions reduction targets.
165. In terms of delivering cost-effective emission reductions, the status quo is better than option 1, which will result in a fiscal cost of \$4.333 million over the forecast period to 2015/16. Although option 1 may mitigate businesses' carbon costs in the short term, its mitigating effect is likely to be immaterial for households and businesses on average, as the carbon price is expected to be low and it does not increase the level of industrial allocation significantly in the short term.
166. In terms of long-term economic resilience, option 1 is not significantly different from the status quo, as they would provide similar long-term incentives for developing new emission abatement technologies.
167. A summary of the assessment of each policy option against the objections is set out in the table below.

<b>Summary assessment of the policy options against the high level objectives relative to the status quo</b>		
	<b>Status quo</b>	<b>Option 1 (Suspending phase-out of allocation until 2015)</b>
<b>Delivering fair share</b>	-	X
<b>Delivering cost-effective emission reductions</b>	-	X
<b>Long-term economic resilience</b>	-	-

### *Implementation*

168. If option 1 were adopted, it would be implemented through amendments to the Act. The administrative system for industrial allocation would need to be updated (which would need to be updated in any case because of the proposed changes to the transition phase settings).

## *D Pre-1990 forestry*

### *i. Offsetting*

#### *Status quo*

169. The ETS forestry rules are largely based on Kyoto Protocol rules for CP1. These rules make New Zealand liable for all deforestation emissions between 2008 and 2012. Deforestation liabilities in the ETS apply to landowners of exotic forests if they harvest their forest and change land use, or do not re-establish the forest within 4 years.
170. In March 2012, Cabinet agreed in principle, subject to consultation to enable a domestic pre-1990 forest offsetting in the ETS, consistent with the international flexible land use (FLU) rule agreed at Durban.
171. Offsetting policy allows pre-1990 forest land to be changed to a higher-value land use. Deforestation liabilities are waived provided a new forest is established elsewhere. Any departure from international rules could create liabilities should New Zealand opt-in to CP2, or apply the FLU rule in a commitment outside the Kyoto Protocol. See RIS (Part 1) for more details of the status quo.

#### *Problem definition*

172. Deforestation liabilities limit landowners' ability to convert pre-1990 forest land to other land use. For a mature forest, deforestation liabilities are on average \$4,800/ha (at \$6 carbon price) or \$20,000/ha (at \$25 carbon price). It is estimated that about 5 per cent of the pre-1990 forest land (70,000 hectares) could be better suited to pastoral land uses.
173. A pre-1990 offset planting regime would allow forest landowners to change land use without liabilities provided a new forest is established elsewhere that is at least the same area and achieves the same carbon stock. See RIS (Part 1) for more details of the status quo.

#### *Policy options*

174. The three offsetting policy options included in RIS (Part 1) were based on eligibility requirements, and were:
  - Option 1: Harvest at any age
  - Option 2: Harvest at any age with offset planting required to remain on the ground for full rotation
  - Option 3: Harvest mature trees only
175. The following requirements of the international FLU rule apply to all the policy options considered:
  - Only pre-1990 exotic forests cleared from 2013 are eligible for offsetting
  - The offset planting (new forest) must be established in 2013 or later on post-1989 forest eligible land (land that did not contain forest in 1990)
  - The offset planting must be established by direct planting activities (not through natural regeneration)
  - The offset planting needs to be at least the same area as the cleared forest and achieve the same carbon stock level as the cleared forest at the time of harvest within a usual rotation length

- The offset planting would be classified as pre-1990 forest and therefore cannot earn carbon credits in its own right
  - All forest lands shall be monitored and verified, including its location and the year of conversion.
176. Cabinet agreed in principle that the Act be amended so that the Minister of Climate Change Issues could require the offset forest to be maintained for a full rotation (Option 2) or the age of trees to be deforested be limited (Option 3). These options would apply, subject to consultation, if they were necessary to mitigate any fiscal risks [Cab. Min (12) 8/7, paragraph 43 refers]. Therefore, only option 1 was included in the consultation process, and will be assessed in this RIA.

*Impact assessment based on consultation outcomes*

177. Most submitters agreed with offsetting being implemented in the ETS, as the policy will optimise land use, and consequently economic growth. However, submitters indicated most pre-1990 forest landowners are unlikely to benefit from offsetting. The main reasons were practical and economic barriers to take up offsetting:
- Most forest land is already in its best land use with limited alternatives for conversion
  - Landowners cannot undertake offsetting for some time as the trees are not ready for harvest or they have just replanted
  - The costs involved prevent landowners from taking up the policy. Many would need to purchase land, cannot afford the establishment and maintenance of a new forest or do not have the capital to undertake conversion
  - Many want to exit forestry after harvest.
178. Some submitters sought a change in eligibility for offsetting to include pre-1990 forest land that was harvested before 2013 but not yet been replanted or converted (fallow land). The current policy proposal is that only pre-1990 forest land harvested from 2013 is eligible for offsetting, **[Withheld under s9(2)(j) and s9(2)(h)]**.<sup>21</sup> Officials have analysed the impact of this change in the policy below.

*Policy options*

179. Based on the outcomes of the consultation three policy options have been included in this RIA. Option 1 remains the same as in RIS (Part 1) with offsetting eligibility requirements applying only to land harvested from 2013. Option 2 and 3 have an updated eligibility to include pre-1990 forest land harvested prior 2013. An outline of these policy options is set out in the table below.

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<sup>21</sup> **[Withheld under s9(2)(j) and s9(2)(h)]**. See: <http://unfccc.int/resource/docs/2011/awg16/eng/l03a02.pdf>. The accounting methodological guidelines for the second commitment period of the Kyoto Protocol will be finalised in 2013.

Option	Key features
<b>Status quo (as currently legislated)</b>	<ul style="list-style-type: none"> <li>• Deforestation liabilities apply <ul style="list-style-type: none"> <li>• when pre-1990 forest land is converted to a non-forest land use (subject to some limited exemptions)</li> <li>• if 4 years after harvest, the land does not have at least 500 stems per hectare</li> </ul> </li> <li>• Clearance of up to 2 hectares in each 5 year period is not deforestation</li> <li>• An exemption was available for landowners with &lt;50 hectares</li> </ul>
<b>1: Harvest at any age, only harvest from 2013 eligible (as in RIS Part 1)</b>	<ul style="list-style-type: none"> <li>• Only pre-1990 exotic forests cleared from 2013 are eligible for offsetting</li> <li>• This policy applies to trees harvested at any age</li> </ul>
<b>2: Harvest at any age, harvest prior 2013 eligible</b>	<ul style="list-style-type: none"> <li>• Pre-1990 exotic forests cleared at any time that do not have a deforestation liability are eligible for offsetting</li> <li>• This policy applies to trees harvested at any age</li> </ul>
<b>3: Harvest at any age, harvest prior 2013 eligible, new forest planted within 4 years from harvest</b>	<ul style="list-style-type: none"> <li>• Pre-1990 exotic forests cleared at any time that do not have a deforestation liability are eligible for offsetting</li> <li>• This policy applies to trees harvested at any age</li> <li>• The new forest needs to be established within 4 years from harvest to avoid deforestation liabilities</li> </ul>

*Impact assessment of each option*

180. All options increase land use flexibility compared to the status quo. Option 1 however would limit the conversion of land harvested in the last few years which has not yet been replanted or converted (fallow land). Option 2 and 3 would permit more existing fallow land to be converted with offsetting than with the status quo.
181. All options ensure that any deforestation emissions are mitigated in the long term, and that the net forest area in New Zealand will not decrease as new planting will occur elsewhere. In addition, all the options encourage the best land use for both the pre-1990 forest land, and where the new forest is established. There are economic benefits and environmental co-benefits arising from these land use decisions.
182. Option 1 minimises fiscal costs and risks to the Crown **[Withheld under s9(2)(j)]**. Option 2 and 3 create potential fiscal costs and risks to the Crown **[Withheld under s9(2)(j)]**. **[Withheld under s9(2)(d), s9(2)(g)(i) and s9(2)(j)]**
183. All options would build on existing ETS operational processes and systems to minimise administrative costs and burdens for the Crown and participants. There will be however, additional administrative costs to the Crown as offsetting will not replace the existing deforestation policy but will be an alternative for landowners.
184. A summary of the impacts under the status quo and the policy options is presented in the table below.

Option	Impacts	Net impact
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Option	Impacts	Net impact
<b>Status quo</b>	<p>ECONOMIC: Deforestation liabilities deter forest owners from converting forest land to potentially more productive uses</p> <p>COMPLIANCE: Administrative costs for Crown for monitoring compliance and enforcement. Some risk of some landowners defaulting on liabilities which results in a cost to the Crown. Landowners need to ensure replanting occurs to avoid liabilities or bear the cost.</p> <p>ENVIRONMENTAL: Any forest land conversion is subject to deforestation liabilities in the current ETS settings</p> <p>FISCALS: Minimum fiscal impacts with current international commitments</p>	Not applicable as it is the status quo
<b>Option 1 (harvest at any age, only harvest from 2013 eligible)</b>	<p>ECONOMIC: More flexibility for forest conversion for landowners compared to status quo</p> <p>COMPLIANCE: Additional administrative costs to implement new policy in addition to status quo. More flexibility for landowners to avoid deforestation liabilities compared to status quo. Some risk of non-compliance from landowners not meeting the requirements for offsetting. Landowners need to ensure the requirements are met or will face penalties.</p> <p>ENVIRONMENTAL: Consistent with known future international framework</p> <p>FISCALS: Some fiscal costs and risks compared to the status quo</p>	This option is better than status quo and the other options. The economic and environmental benefits outweigh fiscal risks and costs and compliance costs.
<b>Option 2 (harvest at any age, harvest prior 2013 eligible)</b>	<p>ECONOMIC: More flexibility for forest conversion for landowners compared to status quo and option 1</p> <p>COMPLIANCE: Additional administrative costs to implement new policy in addition to status quo. More flexibility for landowners to avoid deforestation liabilities compared to status quo. Some risk of non-compliance if offsetting requirements not met. Landowners need to ensure the requirements are met or will face penalties.</p> <p>ENVIRONMENTAL: <b>[Withheld under s9(2)(d) &amp; s9(2)(j)]</b></p> <p>FISCAL: <b>[Withheld under s9(2)(d) &amp; s9(2)(j)]</b></p>	It is uncertain if this option is better than status quo as the economic benefits may not outweigh fiscal risks and costs and compliance costs.
<b>Option 3 (harvest at any age, harvest prior 2013 eligible, new forest planted within 4 years from harvest)</b>	<p>ECONOMIC: More flexibility for forest conversion for landowners compared to status quo. Potentially less time to establish new forest than option 1 for some landowners</p> <p>COMPLIANCE: Additional administrative costs to implement new policy in addition to status quo. More flexibility for landowners to avoid deforestation liabilities compared to status quo. Increased risk of non-compliance compared to option 2 if requirements for offsetting not met. Landowners need to ensure the requirements are met or will face penalties.</p> <p>ENVIRONMENTAL: <b>[Withheld under s9(2)(d) &amp; s9(2)(j)]</b></p> <p>FISCAL: <b>[Withheld under s9(2)(d) &amp; s9(2)(j)]</b></p>	It is uncertain if this option is better than status quo and option 2 as the economic benefits may not outweigh fiscal risks and costs and compliance costs.

*Incidence of impacts of each option*

185. Offsetting participants who have harvested from 2010 and have not made any land use decision to deforest or replant (i.e. fallow land) would benefit from a change in the eligibility for offsetting proposed. **[Withheld under s9(2)(d) & s9(2)(j)].**

186. **[Withheld under s9(2)(d) and s9(2)(j)].**

*Assessment of each option against objectives*

187. In terms of delivering fair share, the requirements of option 1 are consistent with the known international accounting framework (if New Zealand opts-in to CP2 or applies the FLU rule in a commitment outside the Kyoto Protocol).

188. As for option 1, options 2 and 3 will mitigate through time all deforestation emissions through the establishment of a new forest and as such contribute to meet international obligations. Both options 2 and 3 however pose some risk **[Withheld under s9(2)(d) and s9(2)(j)]**

189. In terms of delivering cost-effective emission reductions, all options provide an alternative to current deforestation liabilities, if landowners wish to convert forest to a more profitable land use.

190. Option 2 and 3 would provide an added benefit for a short term to landowners of fallow land. This is because these landowners have a limited timeframe to uptake offsetting before they acquire deforestation liabilities in the ETS (i.e. after 4 years fallow land is considered deforested).

191. In the short term however under current carbon prices (\$6 carbon price) the cost of the ETS deforestation liabilities (for mature trees) is about the same as the estimated comparative net benefits of offsetting. At such a low carbon price, landowners may consider it more viable to convert and pay the ETS liability rather than go through with the process and cost of offsetting. Landowners confirmed that this would be their intention in the most recent Deforestation Intentions Survey (2011).

192. From an economic return and business perspective, owners would aim to minimise costs for conversion. It may be more viable for owners who have already undertaken the cost for harvest and plan to change land use to pay the deforestation liabilities as these costs are lower than undertaking offsetting.

193. It is proposed that all options build on current ETS processes to minimise implementation costs to government.

194. In terms of long-term economic resilience, all options provide a long term benefit for all pre-1990 forest landowners who wish to convert land after harvest in the future.

*Recommendation*

195. All policy options are better than the status quo. However officials have not reach a view on which of the alternative policy options is preferred.

196. A summary of the assessment of each policy option against the objections is set out in the table below.

<b>Summary assessment of the policy options against the high level objectives relative to the status quo</b>				
	<b>Status quo</b>	<b>Option 1 (harvest at any age, only harvest</b>	<b>Option 2 (harvest at any age, harvest prior 2013 eligible)</b>	<b>Option 3 (harvest at any age, harvest prior 2013 eligible, new forest</b>

		from 2013 eligible)		planted within 4 years from harvest)
<b>Delivering fair share</b>	-	✓	✓	✓
<b>Delivering cost-effective emission reductions</b>	-	✓	✓	✓
<b>Long-term economic resilience</b>	-	✓	✓	✓

*Implementation*

197. The implementation of any offsetting option will build on existing ETS operational processes and systems. Detailed regulations will be required, and will be consulted on with pre-1990 forest landowners.

## ii. *Second tranche of allocation*

### *Status quo*

198. Pre-1990 forest landowners receive a one-off allocation of NZUs in partial compensation for the impact on land values of the ETS pre-1990 forestry rules. The allocation was to be distributed in two tranches: the first tranche before 31 December 2012, and the second tranche of 30.9 million NZUs<sup>22</sup> during 2013.
199. The allocation categories (and distribution between the two tranches in brackets) are:
- 60 (23 and 37) NZUs per hectare for eligible pre-1990 forest land acquired prior to 1 November 2002;
  - 39 (15 and 24) NZUs per hectare for eligible pre-1990 forest land acquired on or after 1 November 2002,<sup>23</sup> or
  - 18 (7 and 11) NZUs per hectare for eligible pre-1990 forest land that was Crown forest licence land on 1 January 2008, including that transferred under a Treaty settlement after that date.<sup>24,25</sup>
200. The allocation was distributed *pro rata* to eligible pre-1990 forest landowners irrespective of whether they intend to deforest, and therefore irrespective of whether they would face ETS liabilities. **[Withheld under s9(2)(g)(i)].**

### *Problem definition*

201. The introduction of offsetting from 2013 changes the pre-1990 forestry rules: deforestation liabilities would not apply, provided landowners plant a qualifying carbon-equivalent forest (pre-1990 offset forest) elsewhere. Although there are costs to creating an offset forest, landowners have greater land use flexibility, and the impact of the ETS on pre-1990 forest land values can be expected to be reduced. Therefore, there is a case to review previous decisions on the second tranche of the forestry allocation.

### *Policy options*

202. Three policy options were considered in RIS (Part 1): cancel for those who take up offsetting, partial cancellation, and full cancellation.
203. There has been consultation on the three policy options. In addition, two partial cancellation options are considered below: a flat rate *pro rata* (e.g. 50 per cent of the second tranche), and a fixed number of NZUs for all (e.g. 11 NZUs).
204. The four main policy options identified for the possible cancellation of the second tranche are described in the table below.

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<sup>22</sup> The final estimate of the value of the second tranche depends on the final determinations made to all applications. These are still in process.

<sup>23</sup> This allocation category also applies to land acquired before this date where beneficial ownership has changed in the way set out in the allocation plan (s72(2)(b)(ii)(B) of the Act).

<sup>24</sup> These units are in compensation to iwi for the restrictions on future land use of pre-1990 forests transferred under Treaty of Waitangi settlements since 1 January 2008. Crown forest licensed land transferred to Ngati Awa and Te Uri o Hau under Treaty of Waitangi Settlements receives 60 NZUs per hectare, as this settlement was agreed prior 1 November 2002.

<sup>25</sup> Section 72(2)(b)(i)(A) of the Act also includes Crown forest licence land that will not have been transferred to iwi as part of a settlement by the date of the allocation plan (i.e. regular CFL, or CFL that may be part of a settlement but has not been transferred at the date of the allocation).

Option	Key features
<b>Status quo</b>	<ul style="list-style-type: none"> <li>• One-off allocation of NZUs is provided to pre-1990 landowner (s72) in two tranches</li> <li>• The allocation categories are: <ul style="list-style-type: none"> <li>60 NZUs/ha</li> <li>39 NZUs/ha</li> <li>18 NZUs/ha<sup>26</sup></li> </ul> </li> </ul>
<b>1: Cancel for those who take up offsetting</b>	<ul style="list-style-type: none"> <li>• Cancel second tranche only for those who offset</li> <li>• Estimated potential savings range from 0.164-1.76 million NZUs, and are dependent on the uptake of offsetting</li> </ul>
<b>2: Partial cancellation – pro rata</b>	<ul style="list-style-type: none"> <li>• Cancel 50 per cent of the second tranche for all pre-1990 owners</li> <li>• Estimated potential savings 15.45 million NZUs</li> </ul>
<b>3: Partial cancellation – fixed allocation</b>	<ul style="list-style-type: none"> <li>• Give all pre-1990 owners a fixed number of NZUs per hectare (e.g.11 NZUs)</li> <li>• Estimated potential savings 15.6 million NZUs</li> </ul>
<b>4: Full cancellation</b>	<ul style="list-style-type: none"> <li>• Cancel all of the second tranche for all forest owners</li> <li>• Estimated potential savings 30.9 million NZUs</li> </ul>

205. Several submitters noted cancelling the second tranche and providing an offsetting fund would be closer to the original policy rationale for the allocation (to provide for a level of deforestation enabling land to be put to its best use). Officials analysed this option but considered that this approach would have a high risk of challenge, and potentially be costly to administer.

*Impact assessment of each option*

206. The RIA set out in RIS (Part 1) has been reassessed in the light of the consultation responses. This reassessment is set out below, and includes new and updated advice on legal risks.

207. Analysis indicates large landowners in the central North Island, Canterbury and Otago/Southland are most likely to take up offsetting and obtain this benefit. Conversely, around 74 per cent of pre-1990 forest land (940,000 hectares) is best suited to forestry and therefore is unlikely to benefit from offsetting. This was supported by submitters: many indicated their land is best suited to forestry.

208. Many submitters noted there were practical or capital constraints to them taking up offsetting. Concerns were raised about the costs, including the possible impact on offset land values, and that the costs may have been underestimated. It was noted that additional area would be required to prudently manage offsetting obligations.

209. Iwi/Māori raised concerns of specific barriers for them to taking up offsetting, including:

- not having suitable land or capital;
- that it is contrary to tikanga to purchase or rent other lands to which there is no whakapapa or manawhenua associations;
- difficulties presented by the Te Ture Whenua Māori Act 1993 (TTWMA).

<sup>26</sup> These units are compensation for iwi for the restrictions on future land use decisions placed on Treaty of Waitangi settlements with forestry ETS obligations starting on 1 January 2008. Crown forest licensed land transferred to Ngati Awa and Te Uri o Hau under Treaty of Waitangi Settlements receives 60 NZUs per hectare, as this settlement was agreed prior 1 November 2002.

210. A summary of the impacts for the policy options for cancelling the second tranche is presented in the table below.

Status quo (no cancellation of second tranche)	<p>ECONOMIC: Landowners would receive compensation they are expecting. Some landowners would be over-compensated, particularly the 60 NZU category whose land is in best forestry. If offsetting is introduced the status quo units may provide the capital to enable offsetting.</p> <p>FISCAL: Significant fiscal cost (\$185.4 million at \$6carbon price)</p> <p>ENVIRONMENTAL: No impact on the level of deforestation emissions</p>
Option 1 (cancel for those taking up offsetting)	<p>ECONOMIC: The economic impact would only be on landowners who take up offsetting. Given that this is optional, it is expected that participants would only offset if there were economic benefits. Other landowners would receive compensation they are expecting. Negligible impact on market liquidity</p> <p>FISCAL: Minimal fiscal savings compared to other options, with uncertain timing (\$1.4 million per annum per annum at \$6 carbon price)</p> <p>ENVIRONMENTAL: No change from status quo</p>
Option 2 (partial cancellation - <i>pro-rata</i> )	<p>ECONOMIC: All landowners would face an economic impact, with the size depending on the number of units they are eligible for, the current carbon price and whether their land is in best use. Possible minor impact on market liquidity from reduced supply of forestry allocation NZUs.</p> <p>FISCAL: Some fiscal savings, but less than option 3 (\$92.7 million at \$6carbon price)</p> <p>ENVIRONMENTAL: No change from status quo</p>
Option 3 (partial cancellation – <i>fixed allocation e.g. 11 NZUs</i> )	<p>ECONOMIC: No economic impacts for the 18 NZU allocation category. Economic impacts for all other foresters in the 39 and 60 NZU categories. Possible minor impact on market liquidity from reduced supply of forestry allocation NZUs.</p> <p>FISCAL: Some fiscal savings but more than option 2 (\$101.4 million at \$6 carbon price)</p> <p>ENVIRONMENTAL: No change from status quo</p>
Option 4 (full cancellation of second tranche)	<p>ECONOMIC: Impacts on business plans and reinvestment for the NZUs, issues with long term leases, and not having the second tranche to cover replanting costs. Possible impact on market liquidity compared to other options</p> <p>FISCAL: Maximises fiscal savings compared to other options (\$185.4 million at \$6 carbon price)</p> <p>ENVIRONMENTAL: No change from status quo. Possible low risk of some negative impact on future afforestation due to perceived decrease in investment certainty.</p>

*Assessment of each option against objectives*

211. In terms of delivering fair share, this change in policy does not impact on our international obligations or the level of deforestation emissions.

212. In terms of delivering cost-effective emissions reductions, option 4 (full cancellation) maximises fiscal savings. However, the carbon market liquidity could be affected as a significant source of NZUs for trade is removed from the domestic market. The outcome from option 1 (cancel for those taking up offsetting) will have minimal fiscal savings and have least impact on market liquidity. Officials however, do not consider that market liquidity should be a significant consideration in this decision, as participants have unrestricted access to international markets, and auctioning may be introduced in the future.
213. In terms of maximising long-term resilience, options 2 and 3 (partial cancellations) and 4 (full cancellation) are likely to have greater equity impacts than option 1 (cancel for those taking up offsetting). For example, submissions indicated that many landowners may not be able to take up offsetting, and therefore it was unfair to reduce their allocation. However, for those who indicated that they cannot offset because forestry was already the best use for their land, arguably the land value impacts would not have been high, and therefore the full allocation may not be necessary. A large number of landowners commented on the equity impacts especially in relation to the agricultural and business sectors. They noted that the forestry sector faces full liabilities, whilst other sectors either face no or reduced liabilities. Some commented that being required to offset their liabilities, by buying new land and planting trees, was also equally an option for farmers to offset their emissions.
214. As noted above, the pre-1990 forestry allocation was intended as partial compensation for the impact of the ETS. It is therefore not as directly related to the objectives of the ETS and the analysis criteria as the other proposals. Therefore, other factors were considered when looking at this issue, including:
- the policy case for cancellation i.e. the link between offsetting and land values
  - stakeholder expectations and understanding of the second tranche – including government communications around possibility of review
  - legal and relationship risks created by reducing the second tranche.

*Policy case for cancellation*

215. A policy argument could be made to cancel the compensation in full because the introduction of offsetting can be expected to have a positive impact on property values (because land can now be put to best use). The majority of submitters believe that their land is currently in best use, therefore the impact on land values would not have been high. Those who would have the most significant impact from the ETS restrictions, with offsetting can now put their land to best use.

*The expectations and level understanding of the status of (and reasons for) the second tranche*

216. Submissions indicated some misunderstanding and a level of confusion regarding the allocation. For example, some submitters have assumed the allocation was intended to cover deforestation liabilities in full (which would negate the purpose of the pre-1990 forest land rules to limit deforestation). While the link between pre-1990 deforestation rules and the allocation was made in publications, presentations and was in legislation, this may not have been consistently understood. As a result, many considered the allocation an entitlement.

217. Iwi/Māori stated that any changes should be consistent with the principles of the Treaty of Waitangi, and that any reduction of the allocation would negatively affect the Māori/Crown relationship and be seen as a breach of good faith.

*Legal advice*

218. **[Withheld under s9(2)(h)]**

219. **[Withheld under s9(2)(h)]**

220. **[Withheld under s9(2)(h)]**

221. **[Withheld under s9(2)(h)]**

222. **[Withheld under s9(2)(g)(i) or s9(2)(h)]**

223. **[Withheld under s9(2)(h)]**

224. **[Withheld under s9(2)(g)(i)]**

225. **[Withheld under s9(2)(g)(i)]**

*Recommendation*

226. The introduction of offsetting from 2013 to reduce the impact of the ETS on pre-1990 forest land values. In this light there is clear policy case for cancelling the second tranche of pre-1990 allocation. However, few stakeholders appear to accept this case, **[Withheld under s9(2)(g)(i)]**.

## *E Global warming potentials*

### *Status quo*

227. Under the ETS as currently legislated, ETS participants are required to report their greenhouse gas emissions on a carbon dioxide (CO<sub>2</sub>) equivalent basis. This means they have to convert non-CO<sub>2</sub> greenhouse gases into a CO<sub>2</sub> equivalent using the global warming potentials (GWP) prescribed in the Act for CP1. At the Durban UNFCCC conference last year, signatory countries agreed that updated GWPs would be used to account and report their emissions from 1 January 2013. See RIS (Part 1) for more details of the status quo.

### *Problem definition*

228. Unless and until New Zealand signs up to a second commitment period, the Act will continue to require ETS participants to use the GWPs as specified for CP1. This means that the reporting and accounting of emissions (and hence surrender obligations) by ETS participants will be inconsistent with the reporting and accounting of emissions by New Zealand under its international obligations after 2012. See RIS (Part 1) for more details of the problem definition.

### *Policy options*

229. In RIS (Part 1), the preferred policy option was to amend the Act to align the GWPs used by ETS participants after 2012 with the GWPs used for international accounting and reporting. See RIS (Part 1) for an assessment of this option against the status quo.

### *Impact assessment*

230. There has been a consultation on the preferred policy option. The RIA set out in RIS (Part 1) has been reassessed in the light of the consultation responses. This reassessment is set out below.

231. There was no strong majority either way on the proposal to adopt the most up to date GWPs into the ETS. The most common reason given by those who agreed with the proposal was the need to adopt consistent international rules and common standards (e.g. to facilitate linking with other trading schemes).

232. The most common reasons given by those who disagreed with the proposal were:

- the additional ETS costs the new GWPs would impose on certain activities,
- the late notice given to the waste sector, which will incur surrender obligations from 2013, about the cost increase compared to other sectors affected (such as agriculture)
- the impact on carbon sequestration rates.

233. An assessment of these arguments is set out below.

234. First, the costs of using the updated GWPs were set out in RIS (Part 1). However, the benefits of using the updated GWPs were considered to outweigh these costs. No new information has come to light in the consultation that would change this assessment.

235. Second, the updated GWPs will increase the ETS related costs for the waste sector by about 19 per cent. Compared to the agriculture sector, which will also face the same ETS related cost increase for methane, the waste sector will face surrender obligations

from 2013 (compared to 2015 for agriculture) and is not eligible to receive allocation (compare to 90 per cent allocation for agriculture). However, if the option of phasing out the two-for-one surrender obligation is adopted (see *Transition phase measures* above) then this would mitigate the initial impact of the increase GWPs.

236. Third, the updated GWPs will affect only the relative weight of non-CO<sub>2</sub> gases (expressed as carbon dioxide-equivalent or CO<sub>2</sub>-e), and will have no impact on current carbon sequestration rates and carbon dioxide emission estimates.
237. Since no new information on the impacts was provided by submitters, the RIA in RIS (Part 1) remains valid and updating the GWPs remains the preferred policy option.

## *F Backing NZUs issued with international units*

### *Status quo*

238. Under the ETS as currently legislated, the Government is required to back all NZUs issued during CP1 with international units created under the Kyoto Protocol, such as Assigned Amount Units (AAUs). Backing was introduced to ensure that New Zealand meets its obligations under that Protocol and to support the environmental integrity of the ETS. See RIS (Part 1) for more details of the status quo.

### *Problem definition*

239. The problem that arises is whether the original policy intention of backing remains relevant. See RIS (Part 1) for more details of the problem definition.

### *Policy options*

240. In RIS (Part 1), the preferred policy option was to remove the backing requirement. See RIS (Part 1) for an assessment of the options against the status quo.

### *Impact assessment*

241. There has been a consultation on the preferred policy option. The RIA set out in RIS (Part 1) has been reassessed in the light of the consultation responses. This reassessment is set out below.

242. A majority of those who commented on the proposed removal of the NZU backing obligation disagreed with the proposal. The main reasons given by those who disagreed with the proposal were:

- the perception that foresters would be unable sell their NZUs overseas as they could not convert their NZUs to AAUs first
- concerns over the impact on the environmental integrity of the ETS.

243. An assessment of these arguments is set out below.

244. First, the removal of backing does not mean the Government can no longer convert NZUs to AAUs for export. As noted in RIS (Part 1) the Government could purchase international units when and if required so that forestry NZUs can be converted and sold offshore.

245. Second, the introduction of auctioning of NZUs within an overall cap would provide environmental integrity of the ETS (see *Supply of NZUs after 2012* above) thus removing the need for backing. In addition, and as noted in RIS (Part 1), given that New Zealand is expected to meet its Kyoto Protocol obligations for CP1 then there is negligible additional environmental integrity gained from retaining the backing requirements.

246. Since no new information on the impacts of these options was provided by submitters, the RIA in RIS (Part 1) remains valid and the removal of backing if a cap on the amount of NZUs allocated and auctioned is in place remains the preferred option.

## Consultation

247. In April 2012, the Government launched a consultation on its proposed changes to the ETS at a national hui and published a consultation document *Updating the New Zealand Emissions Trading Scheme*.<sup>27</sup> This consultation focussed on the Government's specific proposed changes to the ETS based on its in principle decisions contained in the first Cabinet paper and associated RIS.<sup>28</sup>
248. The consultation closed in May and 359 written submissions were received. In addition, ten regional hui, seven regional forest industry meetings and several meetings with business organisations were held with officials from the Ministry for the Environment and/or the Ministry for Primary Industries (MPI). The concerns raised by submitters have been reflected in the analysis set out above.
249. There has also been substantial departmental consultation during the course of this RIA. In addition, MPI conducted the RIA, and wrote the relevant RIS sections, for the issues in relation to forestry and agriculture.

## Conclusions and recommendations

250. In summary the following conclusions and recommendations are reached:
- the introduction of auctioning of NZUs within an overall cap on the number of NZUs allocated and auctioned
  - annual extensions of the regulations related to auctioning by one year
  - the cap should not limit the amount of NZUs allocated
  - NZUs provided to correct for errors in allocation should be excluded from the cap
  - NZUs allocated as compensation should be excluded from the cap
  - NZUs provided under the fixed price option should be excluded from the cap
  - **[Withheld under s9(2)(b)(ii) & s9(2)(ba)]**
  - the ban on exports of NZUs from non-forestry sectors should be extended while the fixed price option remains
  - include fugitive emissions of coal seam methane in the calculations for industrial allocation for coal users
  - the introduction of offsetting for pre-1990 forest landowners
  - while there is a clear policy case for the full cancellation of the second tranche of pre-1990 allocation there are significant risks to this approach and is accordingly not recommended. All of the partial cancellation options have pros and cons and no preferred option reached.
  - the updated GWPs should be used by ETS participants for accounting reporting purposes

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<sup>27</sup> For further details of this consultation see: <http://www.climatechange.govt.nz/consultation/ets/index.html>

<sup>28</sup> See Cabinet minute (12) 8/7. The first Cabinet paper, RIS (Part 1) and Cabinet minute are available at: <http://www.climatechange.govt.nz/consultation/ets/index.html>

- the requirement to back NZUs with international units should be removed if a cap on the amount of NZUs allocated and auctioned is in place.

## Implementation

251. All of the proposals will be implemented through amendments to the Act and/or through regulations. For further details of how the preferred option identified would be implemented are provided in the *Implementation* sections above under each policy problem.

## Monitoring, evaluation and review

252. The Act requires the Minister to conduct regular reviews of the operation and effectiveness of the ETS (s160). The first review occurred in 2011 and will occur every five years thereafter. The Act (s160(5)) also specifies what the review must cover, although the review is not limited to these matters. Under the Act, the Minister sets the terms of reference and appoints a panel to conduct any review (s160(6)). The Minister is required to publish the panel's report on the review.

253. The Act also requires the Minister to publish an annual report on the ETS. This contains details of the number of ETS participants, the number and types of emission units surrendered and the amount of NZUs allocated each year.<sup>29</sup>

254. A substantial amount of information and data on the ETS is already collected. For example, ETS participants are required to report on their emissions annually. In addition, data are collected each year to assist New Zealand to complete its national inventory. Survey data are collected periodically from the industry<sup>30</sup> and forestry sectors.<sup>31</sup> Data are also collected for use in a number of sector models to produce emission projections, such as the energy sector.<sup>32</sup>

255. There is close liaison between policy and implementation officials that ensures early identification of any problems arising. Officials also meet regularly with businesses and groups, including Māori, most affected by the ETS.

256. There may however be a need to collect data that is not currently collected for monitoring and evaluation purposes. A Ministry for the Environment monitoring and evaluation plan will be completed for each policy proposal once approved by Cabinet.

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<sup>29</sup> See: <http://www.climatechange.govt.nz/emissions-trading-scheme/building/reports/ets-report/>

<sup>30</sup> See for example: Ministry of Economic Development Occasion Paper 11/04, *Business responses to the introduction of the New Zealand emissions trading scheme. Part I: Baseline*. Available at: <http://www.med.govt.nz/about-us/publications/publications-by-topic/occasional-papers>

<sup>31</sup> See, for example: <http://www.mpi.govt.nz/news-resources/publications?title=Deforestation%20Survey>

<sup>32</sup> See, for example, Ministry of Economic Development, *Energy Outlook*. Available at: <http://www.med.govt.nz/sectors-industries/energy/energy-modelling/modelling/new-zealands-energy-outlook>

## Annex 1: Objectives, sub-objectives and criteria used in the regulatory impact analysis

257. The table below shows the top level objectives, sub-objectives and assessment criteria used in the analysis.

<b>Top level objectives</b>	<b>1. Help New Zealand to deliver its 'fair share' of international action to reduce emissions, including meeting any international obligations</b>		<b>2. Deliver emission reductions in the most cost-effective manner</b>					<b>3. Support efforts to maximise the long-term resilience of the New Zealand economy at least cost</b>			
<b>Sub-objectives</b>	<b>1A. Meet international obligations</b>	<b>1B. Achieve a level of emissions consistent with New Zealand's 'fair share'</b>	<b>2A. Minimise negative economic impacts in the short term</b>	<b>2B. Maintain international competitiveness of New Zealand businesses in the short term</b>	<b>2C. Ensure administrative efficiency and effectiveness</b>	<b>2D. Minimise fiscal costs</b>	<b>2E. Ensure efficiency of carbon market</b>	<b>3A. Maximise long term economic resilience</b>	<b>3B. Maximise equity between sectors and groups</b>	<b>3C. Ensure the Crown-iwi relationship under the Treaty of Waitangi is appropriately reflected in ETS legislation, regulation, policy and implementation</b>	<b>3D. Minimise negative environmental impacts and promote positive environmental impacts</b>
<b>Assessment criteria</b>	a) Facilitate progress of international efforts to address climate change	a) Contribute to meeting New Zealand's 'fair share' by 2020	a) Minimise short term negative impacts on economic welfare (e.g. GDP, National Disposable Income, etc)	a) Minimise carbon cost differentials between New Zealand's trade exposed businesses and its trading competitors and partners	a) Minimise administrative and implementation costs to Government	a) Minimise fiscal costs	a) Maximise market liquidity	a) Minimise negative economic impacts in the long term	a) Maximise equity between sectors of the economy	a) Appropriately reflect the Crown's responsibilities as a Treaty partner and deliver on any relevant Treaty settlement obligations	a) Minimise negative (wider) environmental impacts
	b) Contribute to meeting New Zealand's existing international obligations	b) Provide incentives for businesses to adopt existing emission abatement opportunities	b) Minimise costs to non-trade exposed businesses	b) Minimise risks of trade sanctions or harm to New Zealand's clean and green reputation for New Zealand's exporters	b) Minimise compliance costs to ETS participants	b) Maximise fiscal savings	b) Maximise market transparency	b) Maintain international competitiveness of New Zealand's businesses in the long term	b) Maximise socio-economic equity, e.g. between high- and low-income households	b) Support the development by Māori of their natural resources in ways that contribute to the development of the Māori economy, and which are consistent with their environmental values	b) Maximise positive (wider) environmental impacts
	c) Enhance	c) Provide	c) Minimise		c) Minimise		c) Facilitate	c) Provide	c) Promote		c) Ensure

	New Zealand's international credibility to influence the outcome of international climate change negotiations.	incentives for consumers to buy low-emission products	competition distortions within and between sectors of the New Zealand economy		transaction costs to ETS participants buying or selling emission units		future links with overseas emissions trading schemes	incentives for the development of new emission abatement opportunities at least cost and businesses' ability to meet future demand for low-carbon products	inter-temporal equity, namely equity between present generation and future generations		environmental integrity of international emission units surrendered in the ETS
		d) Contribute to meeting New Zealand's 2050 domestic emission reduction target			d) Promote understanding of the ETS				d) Ensure appropriate risk-sharing between emitters and Government/taxpayers		

## Annex 2: Summary Impact Assessment

Option	Assessment against objectives			Impacts				Net impact
	Delivering fair share	Delivering cost-effective emission reductions	Long-term economic resilience	Economic	Environmental	Compliance	Fiscal	
<b>The supply of NZUs after 2012</b>								
<b>i. Lack of regulatory and market certainty</b>								
Status quo	-	-	-	-	Flexibility provides environmental integrity	High transaction and compliance costs through lack of certainty	-	n/a
1: Set cap and international unit restriction in the Act	XX	✓✓	-	-	Significant reduction in flexibility, potentially undermines environmental integrity	Lower transaction and compliance costs through significantly higher certainty	-	<b>Nil</b> , compliance cost savings are offset by loss of flexibility
2: Increase notice period for changing regulations	XX	✓✓	-	-	Significant reduction in flexibility, potentially undermines environmental integrity	Lower transaction and compliance costs through significantly higher certainty	-	<b>Nil</b> , compliance cost savings are offset by loss of flexibility
3: Update regulations each year to maintain a five year period	-	✓	-	-	Flexibility maintained	Lower transaction and compliance costs through small increase in certainty	-	<b>Improves</b> on status quo as compliance cost savings
4: Specify a backstop cap in the Act	-	-	-	-	Flexibility maintained	Negligible increase in market and regulatory certainty	-	<b>Nil</b> , same as status quo
<b>ii. Breaches of the cap</b>								
<b>a. breaches due to a significant increase in allocation</b>								
Status quo	-	-	-	Protects	Loss of	Government at risk		n/a

				international competitiveness	environmental integrity of the ETS due to breach of cap	of legal challenge for not complying with regulations		
<b>1: Allow for the adjustment to all allocation proportionately</b>	✓	X	-	Creates uncertainty for business over the level of allocation. Potentially reduces allocation to businesses, reducing international competitiveness.	Increases environmental integrity of the ETS	No risk of legal challenge. Potential additional administrative costs for Government to recalculate allocation for each applicant		<b>Worsens</b> , economic costs outweigh environmental and compliance benefits
<b>2: Allow for urgent changes if it is in the national interest</b>	-	✓	-	No change from status quo	No change from status quo	No risk of legal challenge. Potential additional administrative costs from making urgent changes.		<b>Partially improves</b> , compliance costs lower
<b>3: Cap does not limit the amount of NZUs allocated</b>	-	✓✓	-	No change from status quo	No change from status quo	No risk of legal challenge. No additional administrative costs		<b>Improves</b> , compliance and administration costs lower
<b>b. Breaches due to a correction of an error in allocation</b>								
<b>Status quo</b>	-	-	-	Protects international competitiveness	Loss of environmental integrity due to breach of cap	Government at risk of legal challenge		n/a
<b>4: Exclude NZUs provided to correct for an error</b>	-	✓	-		Loss of environmental integrity due to excluding these NZUs from cap	No risk of legal challenge. or additional administrative costs for Government		<b>Improves</b> , lower compliance costs outweigh integrity concerns

5: Include NZUs within the cap for a subsequent year	✓	X	-	Uncertainty for ETS participants	Maintains environmental integrity	No risk of legal challenge. Potential additional administrative costs for Government.		<b>Worsens</b> , increased economic and compliance costs outweigh environmental benefits
<b>iii. NZUs covered by the cap</b>								
<b>a. NZUs allocated as compensation to pre-1990 forestry</b>								
Status quo	-	-	-	-	Loss of environmental integrity	Compliance costs	-	n/a
4: Exclude from cap	-	✓	-	-	Loss of environmental integrity	Lower compliance costs	-	<b>Improves</b> on status quo as reduced compliance costs
<b>b. NZUs provided under the fixed price option when the international price is below the fixed price</b>								
Status quo	-	-	-	No uncertainty for ETS participants	Marginal loss of environmental integrity	Compliance costs	-	n/a
1: Introduce buffer within cap	✓	X	-	Greater uncertainty	Improvement in environmental integrity	Additional compliance costs	-	<b>Worse</b> than status quo
2: Include within cap in subsequent year	✓	X	-	Greater uncertainty	Improvement in environmental integrity	Additional compliance costs	-	<b>Worse</b> than status quo
<b>c. [Withheld under s9(2)(b)(ii) &amp; s9(2)(ba)]</b>								
Status quo	-	-	-	No uncertainty for ETS participants	Marginal loss of environmental integrity	Compliance costs	-	n/a
1: Introduce buffer within cap	✓	X	-	Greater uncertainty	Marginal improvement in environmental integrity	Additional compliance costs	-	<b>Worse</b> than status quo as economic and compliance

								costs outweigh environmental benefits
<b>3: [Withheld under s9(2)(b)(ii) &amp; s9(2)(ba)]</b>	✓	-	-	No uncertainty for ETS participants	Marginal improvement in environmental integrity	Negligible increase in compliance costs	-	<b>Improves</b> on status quo as environmental benefit
<b>Industrial allocation</b>								
<b>i. Fugitive coal seam methane</b>								
<b>Status quo</b>	-	-	-	Risk of undermining international competitiveness	-	-	-	n/a
<b>1: Include in allocation calculations for coal users</b>	X	✓	✓	Mitigation of ETS costs for coal users	Less incentive to reduce emissions	Small increase in compliance costs	Increased fiscal costs	<b>Nil</b> , as economic benefits offset by environmental, fiscal and compliance costs
<b>2: Include in allocation calculations for coal mining</b>	X	-	✓	Mitigation of ETS costs for coal miners and potentially coal users	Less incentive to reduce emissions	Small increase in compliance costs	Increased fiscal costs	<b>Worse</b> than status quo, environmental, fiscal and compliance costs outweigh economic benefits
<b>ii. Liquid fossil fuels (LFF) for stationary energy use</b>								
<b>Status quo</b>	-	-	-	Risk of undermining international competitiveness	-	-	-	n/a
<b>1: Include LFF</b>	X	X	✓	Mitigation of ETS costs for	Less incentive to reduce emissions	Significant compliance costs	Increased fiscal costs	<b>Worse</b> than status quo as

emissions from stationary energy uses in allocation				businesses using LFF for stationary energy				environmental, fiscal and compliance costs outweigh economic benefits
<b>2: Include LFF emissions from stationary energy and transport uses in allocation</b>	X	XX	✓	Mitigation of ETS costs for businesses using LFF	Less incentive to reduce emissions	Significant compliance costs	Increased fiscal costs	<b>Worse</b> than status quo as environmental, fiscal and compliance costs outweigh economic benefits
<b>iii. Phase out of industrial allocation</b>								
Status quo	-	-	-	Risk of undermining international competitiveness as phase-out starts in 2013	-	-	-	n/a
<b>1: Suspend phase-out until 2015</b>	X	X	-	Mitigates risk of undermining international competitiveness	Less incentive to reduce emissions	-	Increased fiscal costs	<b>Worse</b> than status quo as environmental and fiscal costs outweigh economic benefits
<b>Pre-1990 forestry</b>								
<b>i. Offsetting</b>								
Status quo	-	-	-	Deforestation liabilities deter forest owners from converting forest land to more	Any forest land conversion is subject to deforestation liabilities	Administrative costs from monitoring compliance and enforcement	Minimum fiscal costs with current international commitments	n/a

				productive uses				
<b>1: Offsetting with harvest at any age, only harvest from 2013 eligible</b>	✓	✓	✓	More flexibility for land use change	<b>[Withheld under s9(2)(j) and s9(2)(g)(i)]</b>	Additional compliance costs	Some additional fiscal costs	<b>Better</b> than status quo as economic and environmental benefits outweigh fiscal and compliance costs
<b>2: Offsetting with harvesting at any age, harvest before 2013 eligible</b>	✓	✓	✓	Greatest flexibility for land use change	<b>[Withheld under s9(2)(j) and s9(2)(g)(i)]</b>	Additional compliance costs	<b>[Withheld under s9(2)(j) and s9(2)(g)(i)]</b>	<b>Uncertain</b> , as economic benefits may not outweigh fiscal and compliance costs
<b>3: Offsetting with harvest at any age, harvest before 2013 eligible and new forest planted within 4 years of harvest</b>	✓	✓	✓	More flexibility for land use change	<b>[Withheld under s9(2)(j) and s9(2)(g)(i)]</b>	Additional compliance costs	<b>[Withheld under s9(2)(j) and s9(2)(g)(i)]</b>	<b>Uncertain</b> , as economic benefits may not outweigh fiscal and compliance costs