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To: Hon Dr Nick Smith, Minister for Climate Change Issues

ETS Review Project: Policy proposals for February 2012 Cabinet paper

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Ministry for the Environment Contacts

Name	Position	Telephone		1st Contact
		Work	Cell	
Principal author	Withheld under S9(2)(a)			
Responsible Manager	Peter Brunt	439 7575	027 498 2332	✓
Director, Climate and Risk	Stuart Calman	439 7571	021 662 162	

Executive Summary

1. On 18 July 2011, Cabinet invited you to report to Cabinet by February 2012 with proposed changes to the ETS based on the Panel's recommendations, developments in and discussions with Australia and further analysis.
2. This briefing seeks your agreement to key policy proposals to be included the February 2012 Cabinet paper on amendments to the Climate Change Response Act 2002 (the Act). It also seeks your feedback on process and timeframes for progressing amendments including the approach you would like to take to public consultation.
3. Cabinet will need to take decisions on amendments to the Act in the context of:
 - a) the role and overall objectives of the ETS: in particular the need to balance short term uncertain internationally with the need to send credible long term price signals;
 - b) the decisions made at Durban, and how New Zealand may wish to position itself internationally, including on accounting rules;
 - c) the level of effort Ministers wish the ETS to achieve and, in this context, the level of international purchasing they wish to see under the ETS;
 - d) prospect for linking with the Australian Carbon Pricing Mechanism.
4. Therefore, in addition to the Panel's recommendations officials have also been considering issues arising in the context of the ETS objectives and wider international developments described above. At this stage we are seeking a high level steer on your preferences for inclusion in the February Cabinet paper.

5. On this basis, officials recommend that the following proposals be included in the February Cabinet paper:
- a) introduction of a mechanism to allow for an auction of NZUs within an overall cap on the amount of NZUs and a restriction on the number of overseas units permitted within the scheme
 - b) a decision on whether the one-for-two surrender obligation should be phased out as proposed by the Panel, or end in 2012 as currently legislated, taking into account the current low carbon prices and fiscal impact
 - c) extension of the \$25 price cap to 2015
 - d) introduction of a mechanism to extend and align the price cap to the Australian Carbon Pricing Mechanism should linking occur
 - e) introduction of offsetting for pre-1990 forestry, with rules to be closely aligned to the Flexible Land Use package agreed at Durban
 - f) cancellation of the second tranche of pre-1990 forestry allocation in whole or in part to a level that is at least equivalent to the amount that would make the proposed changes to the ETS fiscally neutral
 - g) in relation to synthetic greenhouse gas (SGG), include a change in the point of obligation for SF₆ users and removal of some other SGG activities from the ETS and replacing with a levy equal to the carbon price
 - h) in relation to waste, in principle decisions on exemption criteria for very small and remote landfills
 - i) in relation to agriculture, exclude layer hens from obligations and include the use of DCDs as a removal activity.
6. Officials are also seeking a steer on whether you wish them to undertake further analysis on a flexible mechanism to defer the entry of agricultural emissions, either in whole or in part, to the scheme, should ministers decide on such a deferral in 2014.
7. On averaging for post-1989 forests, officials are still examining the costs and benefits of including this approach to accounting within the ETS. We will provide further advice on this in January 2012. However, officials are seeking your agreement that, if agreed by Cabinet, averaging would be an option for small forests planted after 2012 only.
8. The decisions contained in this brief are not exhaustive or complete. Officials are still considering a number of issues, in particular issues that emerged most recently from Durban and from work with Australian officials on linking. Given the complexities and the number of areas covered, we expect to have to provide further advice on averaging, agriculture and other issues in January 2012.
9. Cabinet will need to make the majority of the policy decisions on amendments to the Act in February so that legislation can be drafted over March and April 2012, in time for introduction in May or June. Where there are changes which raise significant or complex implementation design questions (such as auctioning and offsetting), officials propose that Cabinet make in-principle decisions to policy changes and the high level considerations to be include in legislation, with the detail developed and any consultation occurring in parallel to legislative drafting.
10. Given the urgency, and the complexity of the issues raised, officials also suggest that you engage with key Cabinet colleagues in advance, possibly through an informal Ministerial group meeting in late January. Key colleagues are likely to include the Ministers of Finance, Primary Industries, Economic Development and the Minister for International Climate Change Negotiations.

Situation analysis/background

11. This briefing seeks your agreement to:
 - a) policy decisions to be included the February 2012 Cabinet paper on amendments to the Climate Change Response Act 2002 (the Act).
 - b) the direction of further work by officials on a number of amendment options still subject to analysis.
 - c) the process and timeframes for progressing amendments, including the approach you would like to take to consultation.
12. The Emissions Trading Scheme (ETS) Review Panel (the Panel) provided its final report to you on 30 June 2011. If accepted, a number of these recommendations would require amendments to the Act in 2012.
13. On 18 July 2011, Cabinet invited you to report to Cabinet by February 2012 (through the relevant Cabinet committee) with proposed changes to the ETS based on the Panel's recommendations, developments in and discussions with Australia and further analysis [Cab min (11)27/15 refers].
14. On 15 September you released the Panel's report and announced that the government is advancing detailed work on the recommendations. Given the possible breadth and range of matters that could be considered for the February Cabinet paper and the relatively tight timing if legislation is to be passed by the end of 2012, officials briefed you in October on their proposed priorities for this work [11-B-01671 refers].
15. Officials note the National Party's manifesto policy was to slow the phasing in of the ETS and to amend the ETS along the following lines:
 - a) extend the transitional implementation phase for the electricity, industrial, and transport sectors
 - b) maintain the fixed-price option at \$25 per tCO₂-e until 2015
 - c) introduce offsetting for pre-1990 forest land owners from 1 January 2013
 - d) review the second tranche of compensation for pre-1990 forest land owners faced with a loss of value because of restricted land use in light of the introduction of offsetting
 - e) review the 1 January 2015 legislated entry of agricultural emissions into the ETS in 2014
 - f) explore the 2011 Review Panel recommendations on providing the option of an averaging approach to carbon credits for post-1989 forest owners
 - g) advance trans-Tasman discussions on linking the New Zealand and Australian carbon markets for the post-2015 period
 - h) work with Local Government New Zealand on ETS exemptions for small landfills
 - i) work with the refrigeration industry on the lowest-cost method of including synthetic greenhouse gases in the ETS alongside existing ozone protection regulations.
16. The National Party manifesto also states that any changes to the ETS will be fiscally neutral. Officials briefed you on 21 July 2011 on fiscally neutral options for implementing the Panel's recommendations [11-B-01307 refers]. A partial or full cancellation of the second tranche of pre-1990 forestry allocation is likely to be an essential element of any fiscally neutral package. Given this, a further briefing was sent to you on 18 October

2011, outlining the risks created by cancelling the second tranche of pre-1990 forestry allocation [11-B-01834 refers].

Advice

The context for decisions on ETS amendments

17. Ministers will need to take decisions on amendments to the Act in the context of what they wish the ETS to achieve, in the short and long term. Critical to this will be the international context within which New Zealand will be operating.
18. Officials understand that you see the 2012 package of amendments to the Act as the sole opportunity to amend the ETS between now and 2015. This means that the package of amendments will need to provide for flexibility for international and domestic policy developments in this time horizon, including decisions on what international commitments New Zealand might take in response to the developments in Durban and on linking with the Australian Carbon Pricing Mechanism.

The role of the ETS

19. The ETS is currently New Zealand's primary tool to deliver on international commitments and transition smoothly to a low carbon economy. Over the long term, New Zealand will face increasing drivers to take responsibility for its emissions. The ETS will be best able to support New Zealand's long term economic resilience if investors have confidence that the scheme will provide for a carbon price in future that will reward lower carbon investments now. It will need to operate alongside a range of other measures, such as those that support research and innovation and remove any barriers to an efficient price response.
20. However, in the short term, New Zealand will also need to manage uncertainty about how the international framework will evolve and how our competitors will act. Changes to ETS settings therefore need to manage short term uncertainty in a way that ensures New Zealand businesses remain competitive, while still providing credible signals about the sustainability of the scheme and the evolution of prices.
21. Consistent with this, the following ETS objectives were set out in the Panel's terms of reference, which Cabinet agreed. Officials have used these broad objectives as a starting point for their analysis of the Panel's recommendations:
 - a) helps New Zealand to deliver its 'fair share' of international action to reduce emissions, including meeting any international obligations
 - b) delivers emission reductions in the most cost effective manner
 - c) supports efforts to maximise the long term economic resilience of the New Zealand economy at least cost.

The international context

22. As New Zealand's primary tool to deliver its international commitments, the ETS was designed in the context of the international framework established under the Kyoto Protocol.
23. The agreement reached at the recent UN 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, than was available when the Panel made its recommendations. The key features of Durban agreement are:
 - a) a new agreement with 'legal force' covering developed and developing countries will be agreed by 2015 and will come into force by 2020

- b) second commitment period (CP2) under the Kyoto Protocol from 2013 to 2017 (or 2012) covering the EU, other European countries and any other country who decides to join by next year. The USA, Canada, Japan and Russia have already decided not to join. Australia and New Zealand have not yet indicated whether they will join
 - c) confirmation of the continuation of the Clean Development Mechanism (CDM) after 2012 and the development of new market mechanisms
 - d) in relation to forestry under the Kyoto Protocol: the inclusion of rules on flexible land use, harvested wood products and reference level accounting approach for forest management; and the loss of the Afforestation-Reforestation Debit-Credit (ARDC) rule.
24. Regardless of the decision New Zealand makes in regard to where and when to take our commitments, we would continue to take action to address climate change, would use internationally comparable rules and would need access to international markets.
25. However, the decisions at Durban, whilst a significant step forward, do not remove uncertainty. The current international context continues to raise a number of inter-related issues for the ETS, outlined in further detail below.

Level of ambition and levels of overseas purchasing

26. At the time decisions are made on the ETS in February, it is still likely to be uncertain what international commitments New Zealand will face in the short term. Government has indicated that it will sign up to the new agreement from 2020, although it has not yet decided whether to join the Kyoto second commitment period from 2013.¹ It is uncertain what level of emission reductions it will be obliged to make from 2020 or under the second commitment period, should New Zealand chose to participate.
27. Regardless of this uncertainty, Ministers will need to take a view on what level of emissions reductions they wish the ETS to deliver in the period to 2020 and how they would like that ambition to be demonstrated.
28. As discussed above and in previous briefings [11-B-01671 refers], the ETS is currently entirely open to and increasingly dependent on international markets to source overseas emission reductions. However, in the short term, this openness also poses risks. Confirmation of the continuation of the CDM after 2012 at Durban provides a level of assurance around access to international carbon markets. However, despite decisions at Durban, supply and demand on international markets remains uncertain.
29. In the short term, it is likely that international carbon prices will remain low, reducing incentives to reduce emissions. Despite the EU joining a second commitment period, this is unlikely to increase demand for CERs as the EU already have sufficient units to meet their likely commitments. If international prices remain at low levels, they are likely to reduce afforestation rates and increase deforestation rates.
30. In the longer term, given over-supply and lack of demand, beyond 2015 (when the true-up period under the first commitment period of the Kyoto Protocol ends) there is greater uncertainty about CER supply and price. Direct linking with other emission trading schemes and market mechanisms may provide a useful hedging strategy against this uncertainty after 2015. However, whilst work to explore the scope for linking with the Australian Carbon Pricing Mechanism proceeds, the prospects for wider linking are still uncertain.
31. Based on the ETS as currently legislated and an assumed carbon price of \$25, domestic net emissions are estimated to be about 6 per cent above 1990 levels in 2020.²

1 Note the length of this commitment is yet to be confirmed but will be either to 2017 OR 2020

2 These estimates are illustrative only as they are based on a range of assumptions, including a \$25 carbon price. Other key assumptions include economic growth, population growth, oil prices, technology change,

However, ETS participants are expected to buy and surrender about 140m overseas emission units between 2015 and 2020 in order to meet their obligations. This purchasing is potentially an overseas cashflow worth about \$3.4bn³; and the units purchased are equivalent to a reduction of about 36 per cent on 1990 levels in 2020, well in excess of New Zealand's conditional 2020 target.

32. These surrendered overseas units may have little value to the Government because it may not be able to sell them due to a lack of demand or it may be unable to use them to meet future international commitments. The government fiscal position will be at risk, as ETS revenue will be collected solely in the form of units that have an uncertain value.
33. It is likely to be desirable to reduce levels of overseas purchasing under the ETS in the short term to reduce these risks and reflect a more appropriate level of effort. The mechanism to do this needs to be flexible enough to ensure that New Zealand can deliver international obligations which require use of international markets, such as a CP2.

Linking with the Australian Carbon Pricing Mechanism

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35.

Accounting rules

36. Regardless of whether New Zealand decides to commit to a CP2, it will need to decide whether to modify ETS settings in order to reflect the changes to forestry accounting rules under the Kyoto Protocol that were agreed at Durban. A balance is required between mirroring changing international rules and providing domestic regulatory certainty.

and rates of afforestation and deforestation. Actual emissions could therefore be higher or lower than this depending on accuracy of these assumptions.

- 3 These estimates are illustrative only as they are based on a range of assumptions, including a \$25 carbon price and on the ETS as currently legislated. One key assumption is that all NZUs allocated in a particular year are also surrendered in that same year. However, if this is not the case (i.e. some people hold on to their allocations) then more overseas units need to be purchased by ETS participants. For example, if all post-1989 forestry owners keep their allocation then 210m overseas units will be surrendered instead (worth about \$5.3bn and equivalent to a 53 per cent emission reduction on 1990 levels in 2020). Another key assumption is the ETS settings that apply. For example, if the agriculture sector does not join the ETS then fewer (i.e. 110m) overseas units will be surrendered (worth about \$2.7bn and equivalent to a 27 per cent emission reduction on 1990 levels). Other assumptions that also affect the level of overseas purchasing include the carbon price (this affects the level of domestic emissions) and the assumed levels of afforestation and deforestation.

With under s(6a) + s(6e) Conversely, on-going regulatory changes could reduce the effectiveness of the ETS by creating market uncertainty, particularly if international rules change again prior to 2020.

37. Most of the rule changes agreed are positive and in line with changes to the ETS Ministers had already envisaged, such as Flexible Land Use. However others, such as the loss of the ARDC rule, will have significant implications for obligations if implemented in the ETS. Officials are continuing to interpret the results from Durban and consider the implications.

Priorities for amendment to the Act in 2012

38. Officials have considered the Panel's recommendations and other issues arising in the context of the ETS objectives and wider international developments described above. ~~Based on this analysis and our understanding of your priorities we suggest that the February Cabinet paper covers the following proposals for amendment to the Act.~~
39. The background analysis and rationale for these priorities is set out in more detail in Appendix 1.
40. At this stage we are seeking a high level steer on your preferences for inclusion in the February Cabinet paper. You should note in that context that:
- a) the list below is not exhaustive or complete. Officials are still considering a number of issues, in particular issues that emerged most recently from Durban and from work with Australian officials on linking. Some of these issues are outlined in the following section
 - b) many of the high level priorities outlined below will require further policy development prior to inclusion, in more detail, in the February Cabinet paper given a range of uncertainties (including the need to fully consider the results emerging from Durban and their impact, for example, on accounting rules)
 - c) a number of the conclusions and costings in our analysis are likely to change before February.
41. We will provide further advice on significant additions or changes to our policy advice prior to the finalisation of the February Cabinet paper. Officials from Ministry for Agriculture and Forestry are also briefing their Minister on the policy options relating to agriculture and forestry.

Introduction of auctioning and a cap on the amount of NZUs issued

42. As noted in paragraphs 26 to 33 above, under current settings the ETS drives high levels of overseas purchasing that raises a number of risks given continuing uncertainties in international carbon markets. In the context of this uncertainty, the ETS as currently legislated provides limited flexibility to reduce the level of international purchasing to reflect a level of international emissions reduction ambition and offshore cashflow that Ministers will be comfortable with to 2020.
43. One way of providing greater flexibility in the ETS is to auction a fixed amount of NZUs each year, over and above those NZUs allocated, up to an overall cap on the amount of NZUs issued in any one year. The more NZUs auctioned then fewer overseas units are likely to be surrendered. This would reduce the risks of an uncertain international market by increasing supply of NZUs, reduce the loss of economic welfare by reducing the amount of overseas purchasing and provide greater flexibility to achieve any desired level of ambition through adjustments to the amount of NZUs auctioned.
44. If auctioning was introduced there is a risk that ETS participants may continue to buy overseas units rather than NZUs at the auction. This risk would be mitigated by a cap on the amount of overseas units permitted.

45. The more stringent that a cap on the use of international units is then the greater the increase in the NZU price (without any increase in the amount of NZUs auctioned). This increase could be mitigated by a price cap (discussed below). Officials note that one option would be to ban the use of international units entirely. This would force ETS participants to use the price cap for all of their net compliance needs and transform the ETS into a fixed price scheme.
46. Whilst such a fixed price scheme would remove all of the risks associated with an uncertain international market and avoid any loss of economic welfare its main drawback is a significant loss of flexibility: to achieve any particular level of international emissions reduction effort in 2020 and to link with other trading schemes. The ETS would become, to all intents and purposes, a carbon tax set at the level of the price cap. For these reasons and others, officials recommend keeping the cap on international units at a level sufficient to meet the compliance needs of participants, once both auctioning and allocation have been taken into account.
47. Officials propose that the February Cabinet paper present the options and seek approval in principle to amend the Act to provide for through regulation the auctioning of NZUs, a cap on the number of NZUs issued and a cap on the amount of overseas units permitted. Officials also propose that the February Cabinet paper seeks an indication on when auctioning be introduced, with the key options being 2013 and 2015.
48. Officials do not propose that the February Cabinet paper seeks approval on the exact level of either the cap on the amount of NZUs issued or the cap on the amount of overseas units permitted as these decisions are not needed at this stage, and further work and consultation is required

Pre-1990 forestry offsetting and cancellation of the second tranche

49. Officials note that the National manifesto commits to introduce offsetting for pre-1990 forestry from 2013. Some pre-1990 forest is on land that could potentially be more productive in a non-forestry land use. Introducing offsetting would provide for more land-use flexibility. At the current carbon price (which is below \$10) it is more viable to convert high value land to dairy and pay the ETS liability than apply an offsetting approach. However, it is expected that forest owners may still seek an offsetting option to hedge against higher carbon prices in the future.
50. Officials recommend that the February Cabinet paper seek agreement that the elements for domestic offsetting follow the flexible land-use (FLU) rule agreed in Durban as part of the Land Use, Land-Use and Forestry (LULUCF) rules for CP2, namely:
 - a) FLU applies to harvest of pre-1990 forests from 2013
 - b) the offset planting must be established on land that would qualify as post-1989 forest land, but this land will not earn credits for sequestration
 - c) the offset planting must be established through direct human-induced planting and/or seeding
 - d) the offset planted area must be at least equal to area deforested and achieve the same carbon stock within the same rotation length of the deforested forest.
51. Departure from the international FLU rule in the ETS could create liabilities should New Zealand sign-up to CP2 in the future or if the rule is applied retrospectively as part of any legally binding agreement after 2020.
52. FLU is part of "forest management accounting" in CP2 and accounted for within a "reference level", which is a projection of our expected net emissions from pre-1990 exotic forests. If New Zealand's actual net emissions from pre-1990 forests exceed the reference level, New Zealand faces a liability. As such projections are inevitably uncertain, the Crown could minimise any fiscal risk from by limiting the amount of

permitted offsetting. Limiting the amount also manages the flow of emissions through time and avoids any 'rush of forest' as owners seek to offset before the end of CP2.

53. Further work is required to analyse these or other approaches to manage the risks of liabilities. It is likely consultation on the offsetting design will be required.
54. The Panel recommended clawing back the second tranche of pre-1990 forestry allocation if offsetting is introduced and taken up by a forest owner. Ministers have signalled the possible cancellation of the second tranche as a way to make any ETS changes fiscally neutral.
55. The purpose of the pre-1990 forestry allocation was to compensate owners of pre-1990 forest land for the economic impact of deforestation liabilities they could face because of the ETS. Offsetting reduces the cost of deforestation liabilities, making pre-1990 forest land conversion to a higher value land use more viable for owners, but does not remove this cost completely.

56. There are a range of options for cancelling this second tranche, in whole or in part. Officials understand that any cancellation of the second tranche should be at a level high enough to ensure that the entire ETS amendment package is fiscally neutral. At a \$25 carbon price, cancelling all of the second tranche would provide a fiscal saving of around \$773m, more than would be required for fiscal neutrality. Implementing the ETS Panel's recommendation to cancel only for those who uptake offsetting would provide a fiscal saving of only \$4m to \$148m, which would be considerably less than required for a fiscally neutral package.

57.

Withheld under section 9(2)(h)

Transition phase (surrender obligation, price cap and a ban on exports of NZUs)

58. The ETS as currently legislated has a transition phase that expires at the end of 2012. During this phase the liquid fossil fuel, stationary energy and industrial processes sectors have a one-for-two surrender obligation, have a \$25 fixed price option (or price cap) and are prevented from exporting NZUs. The key issue is whether any or all of the features should be extended beyond 2012.
59. The Panel recommended that the one-for-two surrender obligation should be phased-out over three years, the price cap should be extended to 2017 and increased by \$5 per annum and that the ban on exports should continue. It also recommended extending these measures to the synthetic greenhouse gases and waste sectors when they join the ETS in 2013 to ensure equal treatment.
60. The Panel reach its recommendation by balancing short-term business competitiveness concerns against incentives to reduce emissions in the long-term. However, the NZU price has fallen significantly in recent months to \$7.80 on December 13. With the one-for-two surrender obligation, this means the effective price of carbon is less than \$4. This is significantly below the expected effective price of \$12.50 (based on a \$25 carbon price and the one-for-two surrender obligation) that the Panel used as the basis for their analysis.
61. While there is uncertainty about future international carbon market prices it is likely that prices will remain low in the short term, particularly in the period to 2015. It is therefore likely therefore that the competitiveness impacts of the ETS will be minimal during this period even without the one-for-two surrender obligation. Accordingly officials suggest that Ministers re-consider whether the one-for-two surrender obligation should end in 2013 as currently legislated, rather than being phased out over three years as the Panel proposed. Officials note that, should Ministers choose to end the one-for-two surrender

obligation in 2013 rather than accept the Panel's recommendations, this would significantly reduce the fiscal costs of the ETS amendment package and significantly

Withheld under section 59(2)(g)(i)

62. In terms of the price cap, the Panel reached its view on the basis that this would protect businesses from future price shocks. However, as noted above, it is likely that overseas unit prices are likely to remain low in the short term. However, there is a possibility that prices could increase significantly and unexpectedly. This could result in excessive costs being imposed on New Zealand businesses. Accordingly officials propose that the price cap is extended to 2015 to act as an insurance policy against this risk.
63. From 2015, officials are of the view that there should be flexibility over the continuation and level of the price cap, specifically to allow it to be aligned with that under the Australian Carbon Pricing Mechanism in the event that linking occurs. If linking does not occur and if there is progress internationally such that there is more certainty over the international carbon market, officials would not see a continuing role for a price cap after 2015.
64. Officials also propose that both the price cap (and, if the Panel's recommendations are accepted, the one-for-two) be extended to cover the synthetic greenhouse gases and waste sectors, as recommended by the Panel, to ensure equal treatment.
65. In terms of the ban on exports, the Panel reached its recommendation based on the arbitrage risk that arises from a price cap. It is for this reason that the ETS as currently legislated has such a ban during the transition phase. Accordingly officials propose that the ban on the export of units for non-forest sectors be extended beyond 2015.

66.

Withheld under section 59(2)(f)(v)

67. Officials propose that the February Cabinet paper present the options and seek approval for the required changes to the one-for-two surrender obligation, the price cap and the ban on exports. In addition the February Cabinet paper will seek approval to amend the Act to provide through regulation changes to the price cap and ban on the export of NZUs from 2015.

Treatment of unit's post 2012 - backing policy

68. In 2007, Cabinet linked the net Kyoto position to the ETS, by deciding that all NZUs issued should be backed with Kyoto units held in Crown accounts [CBC Minute (07) 24/1 refers]. The backing policy was drafted to ensure that the Crown could meet its Kyoto Protocol commitments and to support the environmental integrity of the ETS by constraining the Crown from issuing an unlimited number of NZUs. It also ensures the ability to convert NZUs into Kyoto units for sale overseas. Currently, backing is the only mechanism that provides controls over the overall emissions outcomes from the ETS, since the Government must either allocate NZUs within its Kyoto cap or purchase additional emissions units to make up the difference.
69. Section 86F of the Act requires the Crown to hold a number of Kyoto units equal to the number of NZUs in circulation in CP1 at the end of the true-up period (expected to be mid 2015). Officials understand the intention of this section was to give effect to the policy to back NZUs with Kyoto units. However, officials have reviewed this section and have found that the legislation does not enforce a feasible backing requirement due to a drafting error. This section should therefore either be amended to give effect to the original policy intention, or removed.

70. Some of the rationale for backing may no longer be relevant, depending on other policy decisions that are taken. The decision about whether or not to retain it will depend on whether New Zealand signs up to a CP2 (and decisions yet to be made about the carryover of surplus AAUs), whether ETS participants are permitted to convert NZUs to AAUs for export and whether there is a cap that constrains the Crown from issuing an unlimited number of NZUs. If Ministers agree to introduce a cap on the number of NZUs auctioned and allocation and agree to restrict or remove the ability to convert NZUs to AAUs for export, it is likely that there is significantly less need for backing.
71. Officials therefore propose that the February Cabinet paper seeks a decision on whether it wishes to confirm its previous decision to back all NZUs issued with international units, or agrees that this should now be removed.

Synthetic greenhouse gases

72. The Panel made 8 recommendations in relation to the treatment of the synthetic greenhouse gas (SGG) sector under the ETS. The substantive recommendations are outlined below.
73. *Sulphur hexafluoride activities:* The ETS currently makes any and all importers of sulphur hexafluoride (SF₆) mandatory participants for the entire amount of SF₆ they import in a year. The Panel and submitters consider this is inequitable, as the government has international obligations only for the actual emissions, which in the majority of applications occur over 50 years after importation. Officials consider that this is reasonable and recommend that the user of SF₆ be the ETS participant. Importers would not be required to participate in the ETS (and exporters would not be eligible as a removal activity). Enabling this change would require amendment of the schedules and regulations of the Act.
74. *Other SSG activities:* The Panel recommended that some other SGG activities (not the importing of bulk SGG) should be removed from the ETS and subject to a levy equal to the carbon price. The payment of the levy would reduce the emission reductions as these would not occur through the purchase of emission units under the ETS. Officials consider the advantages of the levy system outweigh other concerns, especially if a commitment could be made to direct a proportion of levy revenue into emission reduction activities or support elsewhere in the economy (note this would have additional fiscal implications as no new revenue is generated from the introduction of this levy). Implementation of the levy has different implications for the motor vehicle importing industry to other importers of goods containing SGG. These are set out below.
75. *Implementing a SGG levy on motor vehicle imports:* As is the case with the other SGG activities, any importer of SGG in a motor vehicle is an ETS participant. The Panel and submitters considered that the administrative and compliance costs would be relatively considerable. Officials have been assessing an alternative policy of placing an import SGG levy on motor vehicles. The levy approach has numerous advantages, including considerably reduced administrative and compliance costs for importers and the government, and extra 'ETS' revenue from the removal of the threshold and the 100tCO₂e allowance. Officials recommend that you ask Cabinet to agree to progress the levy.
76. *Implementing a SGG levy in goods other than motor vehicles:* Currently, all importers of goods that have SGG in them have ETS obligations. Importers are required to determine the SGG mix in the good and its quantity, calculate potential emissions, and report and surrender units from 2013. Examples of these goods are refrigerators, ice making machines, air conditioning units, some aerosols, and some fire extinguishers. The Panel considered that the ETS transaction costs would be too large, and could be reduced for importers if a levy was based on simplified assumptions about categories of goods and the SGG they contain. Officials have been considering policy alternatives to

the ETS and the favoured option is require amendment to the Act and various regulation including the Working Tariff Document. The Working Tariff Document would:

- a) utilise existing levy collections systems, provide high certainty on compliance, and depending on the levy metric (SGG content, energy output per hour, or other) result in reduced administrative costs for importers
 - b) need modification for this option to work because the current classifications are too broad to be meaningfully used
 - c) require consultation with industry before changes can be made to. It is proposed that such consultation be carried out over March/April 2012.
77. Officials have also identified others issues in relation to SSG, and may come back to you in January with some additional decisions, including changes to the eligibility for units as a removal activity when exporting SGG.

Waste

78. Currently all municipal landfill operators face ETS obligations from 1 January 2012. The Panel recommended that officials work with Local Government New Zealand to see whether exemptions are needed, and, if they are then what eligibility criteria could be suitable.
79. Case studies were made of four different small landfills. It was discovered that perverse, net negative outcomes could result for ETS coverage and limited exemptions are warranted. The negative effects will occur in small, isolated, poorer communities. The increased cost of disposing waste will result in increased illegal activities like fly tipping and incineration. To avoid those impacts, landfill operators (local authorities) could instead choose to absorb the increased costs out of existing budgets, putting pressure on other operational funds.
80. The alternative to exemptions is a programme of assistance to try to manage the negative environmental and budget impacts. Officials consider this option would be inefficient and probably introduce more problems than it solves.
81. ETS exemptions can be enabled through use of section 60 of the Act and do not require amendment of the Act. Officials propose that the February Cabinet paper seek agreement to start drafting the necessary regulations for consultation.

Decisions relating to agriculture

82. Under current ETS settings, agriculture sector participants must report their emissions from 2012 and face full surrender obligations from 2015. Ministers have indicated their intention to review the 1 January 2015 date on which the agriculture sector incurs surrender obligations.
83. Given your view that there will be only one opportunity to amend the ETS in this term of government, you may wish officials to explore a regulatory power to defer the January 2015 date from which the agriculture sector incurs surrender obligations, should this be the outcome of the 2014 review. If you wish officials to examine this option, they will provide advice on options for a regulatory deferral power in the February Cabinet paper.
84. Irrespective of whether the agriculture sector incurs full surrender obligations in 2015, you have previously indicated your desire to progress several other proposed amendments to the ETS's agriculture settings, recommended by the Agricultural ETS Advisory Committee:
- a) the exclusion of layer hens to relieve egg producers of the need to report their emissions from 2012
 - b) inclusion of DCD as a removal activity.

85. Officials therefore propose to include these proposals in the February Cabinet paper.

Averaging for post-1989 forest owners

86. The Panel noted that some post-1989 forest owners may be reluctant to join the ETS because of perceived liability risk following harvest. To address this, the Panel recommended that averaging be available as an option for post-1989 forests from 2012. It also recommended that government consider a ceiling on the size of forest that could utilise the averaging option.

87. Averaging is most sensibly assessed as a policy option in the context of other forestry policies, especially the Afforestation Grant Scheme (AGS). There are two issues that averaging can potentially assist with; that of a potential under-investment in new forests, and around the management of default risk associated with the carbon costs associated with harvest.

88. Averaging does have policy and implementation costs associated with it. The operations of the carbon-related forestry policies are already complicated and difficult to understand. While averaging is conceptually simple, it would add another layer of complexity to an already complicated area of public policy. Further, there would be a cost in terms of the removal of incentives to manage the carbon costs associated with harvest. The removal of carbon costs associated with harvest from foresters' decision-making processes would significantly reduce prospects of decisions being taken to, say, extend forest rotation lengths to optimise carbon within a forestry regime, even though such a decision may be highly beneficial from a national viewpoint.

89. Averaging is of benefit in reducing risks of under-investment in small, new forest plantings, and this would assist with the management of New Zealand's future carbon liabilities, especially through the 2020s and early to mid 2030s. If the AGS (or near equivalent) were to continue the benefit of averaging would be smaller than if the AGS were not to continue. Averaging is not a perfect option to manage default risk associated with harvest but it may assist in this regard.

90. Further work is needed on the costs and benefits of averaging. Officials will provide you with further advice prior to finalising the February Cabinet paper. However, given the arguments above, officials recommend that any implementation of averaging be based on the following principles:

a) averaging is available for small forest owners only. The threshold is likely to be between 100-300 hectares (these are the maximum size thresholds of the field measurement approach to assessing carbon stocks in forests, and to the AGS respectively). Officials will do further work and provide final advice on the threshold in February.

b) averaging is only available for forests planted after 2012 (i.e. forests planted from 2013 onwards).

ETS issues for Māori

91. The Panel recommended a number of changes to assist owners of Māori freehold land to access exemptions or free allocations for pre-1990 land. These issues are also the subject of a Waitangi Tribunal claim.

92. Officials are continuing to assess the nature of the potential problem and the issues. We will report to you by February on proposed amendments to the Act and other measures to address the Panel's recommendations and related issues, such as those by the Māori Trustee in discussions with MAF.

Other proposed policy changes (technical and operation changes)

93. In addition to the changes outlined above officials have identified a number of technical and operational changes that (if made) will improve the operational effectiveness of the ETS.
- a) improving the information sharing provisions in Section 99 of the Act across agencies, with Ministers and review Panels
 - b) managing financial risks for the Crown: regarding the liability provisions in the Act
 - c) industrial allocation settings, in particular the inclusion or exclusion of particular emissions sources from allocation
 - d) improving/ creating monitoring and compliance functions in the Act
 - e) amendments on emissions reporting: such as including own-use of oil by miners, as it currently has no obligation
 - f) other minor and technical amendments: including those to correct minor drafting errors and inconsistencies in the Act.
94. Implementation of the ETS's forestry provisions has revealed a number of operational issues. These issues arise from certain aspects of scheme design and, in some cases, the wording of the Act.
- a) further work to understand the deforestation required by other legislation and where pre-1990 forest landowners incur ETS liabilities if they deforest
 - b) amending the Act to give cleared pre-1990 forest land more time to regenerate naturally into indigenous forest before it is treated as deforested
 - c) amending the Act to prevent pre-1990 forest landowners from incurring deforestation liabilities where a natural disturbance prevents re-establishment of the forest. (which aligns the ETS with Kyoto rules)
 - d) replacing the current 2 hectare threshold for pre-1990 forest land deforestation with a more flexible approach based on owners' forest area and normal forest management practices, but still subject to a maximum threshold
 - e) further advice in February on the benefits, risks and costs of enabling landowners to enter bare land into the ETS
95. We will provide you with a further briefing in January on these to seek your agreement to progress some or all of these technical changes.

Fiscal implications of the proposed Act amendments

96. All of the proposed changes to the ETS have fiscal implications. Some proposals, such as cancelling the second tranche of allocation to pre-1990 forest owners [MfE briefing 11-B-01834 refers], may provide substantial fiscal cost savings and others, such as the phase out of the one-for-two surrender obligation, will entail significant fiscal costs.
97. In order to ensure that the fiscal impacts provided in February are consistent with the forecasts presented in the March 2012 Baseline Update, officials are working to ensure that common assumptions and data sets are used to generate fiscal impact estimates and will brief you in January on this. For this reason, all the estimates presented in this briefing are subject to change.
98. Auctioning would provide the Government with an advance receipt of cash at the point of auction, rather than eligible overseas units at the point of obligation. This would have a timing impact on debt, but not on the operating balance. This may provide fiscal benefits however is unlikely to count as additional fiscal revenue.

99. Some of the proposed changes to the ETS incur additional fiscal costs. The proposed change to phase-out the one-for-two surrender obligation, as recommended by the Panel, is estimated to have an additional fiscal cost of about \$400 million between 2012/13 to 2014/15, using a \$25 carbon price. There may be additional fiscal costs associated with proposals to introduce offsetting⁴ and averaging, depending on the approach adopted to introduce.
100. Some of the proposed changes to the ETS are likely to result in fiscal cost savings. The proposal to cancel the second tranche of allocation to pre-1990 forest owners is likely to result in the largest fiscal cost savings, depending upon the approach adopted. For example, if all of the second tranche is cancelled then this could save \$773 million, using a \$25 carbon price. Alternatively, if the Panel's approach were adopted then the savings could range from \$4 million to \$148 million, depending on the take-up of offsetting.
101. Some of the proposed changes to the ETS, such as the introduction of a levy on synthetic greenhouse gases in motor vehicle imports and the inclusion of the own-use of crude oil by an oil miner, may result in additional fiscal revenues, although these are estimated to be small (i.e. about \$1.5 million per annum at a \$25 carbon price).
102. Some of the proposed changes to the ETS could increase fiscal risks, such as the extending the price cap and introducing offsetting. The latter will depend on the approach adopted for offsetting and how this compares to international rules.

Process issues

Nature of decisions for the February Cabinet paper in 2012

103. Given the range of matters and the time scale for the project it is important that key policy decisions are made as early as possible in 2012.
104. Cabinet will need to make the majority of the policy decisions on amendments to the Act in February so that legislation can be drafted over March and April 2012, in time for introduction in May or June. Where there are changes which raise significant or complex implementation design questions (such as auctioning and offsetting), officials propose that Cabinet make in-principle decisions to policy changes and the high level considerations to be included in legislation, with the detail developed and any consultation occurring in parallel legislative drafting.
105. Given the urgency, and the complexity of the issues raised, officials suggest that you engage with key Cabinet colleagues in advance, possibly through an informal Ministerial group meeting in late January. Key colleagues are likely to include the Minister of Finance, Minister for Primary Industries and Minister for International Climate Change Negotiations.

Approach to consultation on the proposed Act amendments

106. There have been a number of recent consultation opportunities in relation to the ETS, and officials therefore recommend any further consultation on the matters be focused and targeted at areas where consultation has not yet been extensive. For example, officials consider that there has been sufficient consultation in relation to the transition arrangements, especially given the Panel specifically asked about current and expected impacts of the ETS in its consultation.
107. Where there has been less or no consultation, such as the detailed development of options for offsetting, further consultation will be necessary to fully understand the issues and quantify the impacts of the proposed changes. However, this can occur in parallel to legislative drafting. In some areas wider consultations will be necessary on

⁴ This is because offsetting will increase agricultural emissions which will receive 90 per cent allocation.

changes to associated regulations, which can be undertaken in parallel with or following amendments to the main legislation.

108. Officials consider that the following issues will require consultation following Cabinet decisions in February, in parallel to legislative drafting:

- a) the introduction of auctioning and a cap on the number of NZUs within the ETS. This issue was not raised strongly by the Panel in its consultation or final report. Nor did it feature in National's manifesto
- b) detailed options for pre-1990 offsetting (including the approach to the claw back of the second tranche of allocation) and post-1989 averaging. This will raise a number of complex implementation options that have not yet been discussed with stakeholders
- c) implementation options for the proposed levy and other package elements for SGG.

Formal response to the Panel

109. Ministers also need to consider whether (and if so when) they wish to issue a formal response to all of the Panel's 61 recommendations. As previously advised, the Act requires that the Minister for Climate Change Issues prepare a response (and present a copy of this report to the House of Representatives) if the Panel recommends any legislative change in relation to allocation. Only one of the Panel's recommendations relate to legislative change to allocation and they are relatively minor in nature (the recommendations to change the 1.3 per cent phase out rate).

110. Officials propose that the government's response to the Panel's recommendations be combined with a government's statement on its proposed amendments; following Cabinet decisions and prior to introduction of legislation. To support this, officials could prepare a short, high level summary of how the government is addressing each recommendation.

Risks and Mitigations

111. The process of amending the Act will be a challenging one that will raise a number of risks. In particular:

- a) Timeframes: a number of the policy decisions require an amended Act to be in force by the end of 2012. It is therefore essential that passage of legislation and associated regulations occurs before then. However, the legislation is likely to be complex and timing will be tight. Some dovetailing of processes (for example, consultation and drafting, as specified above) will be required. In some instances, it may be necessary to prioritise if it appears likely that complexities with some issues threaten the overall timetable for the Bill.
- b) New information and dependencies: given the number and complexity of some of the proposed changes there are risks that certain issues and costs may not be identified before providing advice to Cabinet. In particular, it may not be possible to properly identify and factor all of the implications of the Durban agreement and subsequent international developments into the legislation.

Withheld under section 56(a)

- c) Uncertainty in the analysis: related to the above, a number of the costings and recommendations in this report are based on assumptions about the international

environment and carbon price which are subject to change. Officials will be clear about the level of uncertainty and the risks this create in all briefings and papers.

- d) Stakeholder: some stakeholders may react negatively to the proposed changes in particular to the cancellation of the second tranche of pre-1990 forestry allocation. To mitigate this risk officials have suggested a targeted approach to consultation focusing on those proposals where there are known concerns or where previous consultation has not taken place.

Legal risk

[Withheld under section 9(2)(c)]

Financial, regulatory and legislative implications

113. This paper seeks guidance on the content for a Cabinet paper due in February 2012 that will seek Cabinet agreement for a number of changes to the Act. As mentioned above some of these decisions will also have fiscal implications.

Consultation

114. Officials from Ministry for the Environment and Ministry of Agriculture and Forestry have worked together on the agriculture and forestry parts of this briefing. Officials from the Treasury and Ministry of Foreign Affairs and Trade were consulted on the contents of this briefing. The Department of Prime Minister and Cabinet was informed.
115. In general, officials across these agencies are comfortable with the general direction of this brief. However they believe there is still a significant amount of work to be done in order to more fully understand the implications of Durban and the uncertainties around the climate market post-2012. In addition there needs to be further work to assess the fiscal impacts of the proposed changes to the ETS.

Next steps

116. Officials would like to meet with you in January 2012 to discuss the contents of this paper and address any concerns or remaining issues to be covered.
117. Given the tight timetable, to support efficient Cabinet processes, officials recommend that you forward this briefing to the Minister of Finance, Minister of Primary Industries, Minister of International Climate Change Negotiations and any other relevant Minister, and arrange a meeting with them early in 2012 to discuss.
118. Following your agreement to the proposed list of amendments to the Act, officials will provide you with a draft Cabinet paper in early February. This will cover those amendments you agree to here, as well as any further issues or amendments that have been identified subsequently (for example, flowing from the Durban decisions).

Recommended action

MfE recommend that you:

1. **Note** that on 18 July 2011 Cabinet invited the Minister for Climate Change Issues to report to Cabinet by February 2012 (through the relevant Cabinet committee) with

proposed changes to the ETS based on the Panel's recommendations, developments in and discussions with Australia and further analysis [Cab min (11) 27/15 refers].

2. **Note** that, because of the breadth and range of matters that could be considered as part of the project and the relatively tight timing if legislation is to be passed by the end of 2012, it is necessary for Cabinet to make clear decisions in February on the main amendments they wish officials to progress.
3. **Note** that, amongst other things, decisions by Cabinet will need to be taken in the context of:
 - a) the role and overall objectives of the ETS: in particular the need to balance short term uncertain internationally with the need to send credible long term price signals;
 - b) the decisions made at Durban, and how New Zealand may wish to position itself internationally, including on accounting rules;
 - c) the level of effort Ministers wish the ETS to achieve and, in this context, the level of international purchasing they wish to see under the ETS;
 - d) prospect for linking with the Australian Carbon Pricing Mechanism.
4. **Note** that separate advice will be provided to Cabinet on the outcomes and implications of the Durban decisions.

High-level decisions for inclusion in the February Cabinet paper

5. **Note** because of the need for officials to produce a draft Cabinet by February, officials are seeking your confirmation on the key areas / options you wish to cover in this briefing. Given the complexities and number of areas covers, we expect the development of these issues to be progressed in discussion with you and in subsequent briefs early in the New Year.
6. **Note** that officials will need to provide further advice on these and a number of other policy proposals early next year, prior to finalising the February Cabinet paper, given uncertainties (such as the impact of Durban) and the need for further policy development in a number of areas.
7. **Indicate**, in relation to the current one for two surrender obligation for the stationary energy, liquid fossil fuel and industrial process sectors, whether the February Cabinet paper should recommend:
 - a) that the 'one for two' should be phased out over two years from the end of 2012 and extended to the Waste and Synthetic Gases sectors, as recommended by the Panel (this would raise fiscal costs of around \$400m)

Yes / No

OR

- b) that, given the current low carbon prices (expected to remain relatively low over the next two years), the 'one for two' should end as current legislated at the end of 2012.

Yes / No

8. **Agree**, subject to further advice, that the February Cabinet paper should seek approval to introduce a mechanism to auction a fixed amount of NZUs within an overall cap on the amount of NZUs allocated and auctioned and a cap on the amount of overseas units permitted.

Yes / No

9. **Confirm** the February Cabinet paper recommends amending the Act to extend the \$25 price cap to 2015.

Yes / No

10. **Agree** the February Cabinet paper recommends amending the Act to extend the ban on exports of NZUs from non-forest sectors whilst a price cap remains in place.

Yes / No

11. Withheld under section
s 9(2)(~~A~~)(iv)

12. **Agree**, subject to further legal advice on feasibility, that the February Cabinet paper recommends amending the Act to provide a mechanism to extend the price cap and align it with the level of any price cap in Australia in the event that the ETS links with the Australian Carbon Pricing Mechanism.

Yes / No

13. **Agree** that the February Cabinet paper seeks a decision on whether Ministers wish to confirm previous decisions to back all NZUs issued with international units, or remove this requirement - in the light of decisions on whether to impose a cap on the amount of NZUs allocation and auctioned and on whether to remove the right to convert NZUs to AAUs for export.

Yes / No

14. **Agree**, in relation to synthetic greenhouse gases, that the February Cabinet paper:

a) **Seeks agreement** to the Panel's recommendation on sulphur hexafluoride (SF₆) mandatory i.e. that the user of SF₆ rather than the importer be the ETS participant.

Yes / No

b) **Seeks agreement** to the Panel's recommendation the motor vehicle and other goods imports should be removed from the ETS and subject to a levy equal to the carbon price

Yes / No

15. **Agree**, in relation to waste, that the February Cabinet paper seeks in principle decisions on exemption eligibility criteria in order to prepare drafting and undertake consultation

Yes / No

Decisions related to changes to forestry or agriculture

16. **Note** that the Ministry for Agriculture and Forestry is also briefing their Minister on the policy options relating to agriculture and forestry and that we have been working with them on the drafting of these sections and recommendations

17. **Confirm**, subject to further advice, that the February Cabinet paper should recommend introducing offsetting for pre-1990 forest land, with rules to be closely aligned with Durban framework for Flexible Land Use.

Yes / No

18. **Confirm**, subject to further advice, that the February Cabinet paper should seek agreement to cancel the second tranche of pre-1990 forestry allocation in whole or in part to a level that is at least equivalent to the amount that would make the proposed changes to the ETS fiscally neutral.

Yes / No

19. [Withheld under section 9(2)(h)]

20. **Note** that the case for averaging for post-1989 forests is strongest to assist with under-investment in small new forests, especially if the AGS (or near equivalent) were not to continue

21. **Direct** officials to continue work to progress averaging and, in undertaking this work, to focus on:

- Small forests only
- Forests planted after 2012 only
- Not allowing the option of forests below a certain size to enter the full carbon stock change accounting approach

Yes / No

22. **Indicate** in relation to the Agriculture sector, whether you wish officials undertake further analysis on a flexible mechanism to defer the entry of Agricultural emissions, either in whole or in part, to the scheme, should ministers decide on such a deferral in 2014.

Yes / No

23. **Agree**, in relation to agriculture, that the February Cabinet paper include:

a) to amend the Act to remove egg producers from the ETS.

Yes / No

b) the detail of including DCDs in the ETS with farmers earning carbon credits for DCD use on-farm, including an appropriate threshold and the feasibility of a grant scheme for farmers below the threshold

Yes / No

24. **Note** that officials will have a number of proposals for operational and technical changes to the Act. We will brief you on these separately in the New Year to seek your agreement.

25. **Note** that officials will provide you with further advice on the fiscal implications of these changes to support engagement with your colleagues in January

Process issues

26. **Agree**, if proposals are included in the Cabinet paper and agree, that the Cabinet paper should seek approval to consult, in parallel to legislative drafting, on:

a) Detailed auction settings including the a cap on NZUs allocated and a cap on the number of overseas units.

Yes / No

b) Detailed settings for pre-1990 offsetting.

Yes / No

c) Detailed settings for post-1989 averaging.

Yes / No

d) Detailed settings for the implementation of the levy for synthetic greenhouse gases.

Yes / No

27. **Agree** that the government should publish a high level response to the ETS panel's report alongside announcements on amendments the Climate Change Response Act; to include a short summary of how the government is responding to each recommendation.

Yes / No

28. **Agree**, given the complexity of the issues and the tight timetable, to meet key Ministerial colleagues prior to your discussion at Cabinet, to discuss your proposed amendments, in particular the Ministers of Finance, Minister of Primary Industries and Minister for International Climate Change Negotiations.

Yes / No

29. **Agree** to forward this briefing to the Minister of Finance, Minister of Primary Industries and the Minister for International Climate Change Negotiations.

Yes / No

Stuart Calman
Director, Climate and Risk
Ministry for the Environment

Hon Dr Nick Smith
Minister for Climate Change Issues
/ /2011

APPENDIX 1: POLICY PROPOSALS

Overview

1. Over the past six months officials have undertaken analysis on the Panel's recommendations. We have also identified a number of additional areas that may require legislative change in 2012.
2. The section below gives further details on the specific problems definitions, proposed responses and key risks and considerations.
 1. Auctioning
 2. Transition phase
 3. Synthetic greenhouse gases
 4. Offsetting and second tranche cancellation
 5. Averaging
 6. Waste
 7. Agriculture

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1 Auctioning

Issue

3. The level of emission reductions that the ETS under current legislation could claim to achieve to 2020 is well in excess of New Zealand's conditional 2020 target and is likely to be excessive compared to what other countries are expected to achieve during this period. Overseas purchasing is also likely to reduce domestic economic welfare.⁵ While the Government could in theory sell surplus overseas units to achieve a lower level of ambition and reduce the loss of economic welfare, in practice this may not be possible due to international perception and environmental integrity concerns.
4. In addition, the uncertain international market creates risks for the Government (if it could sell surplus units) and ETS participants. For example, ETS participants may not be able to buy all the overseas units they need to meet their ETS obligations due to a lack of supply and/or face significant price volatility. Similarly, the Government may be unable to find buyers for its surplus units. In any case, the Act currently prohibits the sale of overseas units collected through the ETS.
5. This means the ETS as currently legislated provides limited flexibility over the level of ambition it achieves. Flexibility is important because the level of ambition is likely to change over time to reflect changing circumstances, such as the future international framework or other ETS design settings (e.g. the entry of agriculture).

Options for response

6. One way of providing greater flexibility in the ETS is to auction a fixed amount of NZUs each year, over and above those NZUs allocated. This would set an overall cap on the amount of NZUs issued in any one year. The price of NZUs would be determined through the auction and is likely to depend on whether there is a cap on the amount of overseas units permitted and/or a cap on the domestic price (see sections below). Absent such caps then ETS participants would face the same costs as they would otherwise face under the ETS as currently legislated.
7. Auctioning NZUs would reduce the risks of an uncertain international market by increasing domestic supply, reduce the loss of economic welfare by reducing the amount of overseas purchasing and provide greater flexibility to achieve the desired level of ambition through adjustments to the amount of NZUs auctioned.
8. Another way of providing greater flexibility would be a fixed price scheme. Under this scheme, overseas units would not be permitted and ETS participants would purchase NZUs to meet their ETS obligations directly from the Government at a fixed price.
9. While this option would remove all the risks of an uncertain international market and avoid any loss of economic welfare⁶ its main drawback is that the level of ambition can only be achieved through domestic emission reductions as overseas purchasing is not permitted. This means that the greater the level of ambition then the greater the risk of imposing excessive costs on ETS participants as they do not have the option of purchasing cheaper overseas units to meet their ETS obligations.

10. [Withheld under section 56(a) s9(2)(j)]

⁵ Overseas purchasing is reflected as a loss to New Zealand's real gross national disposable income (GNDI), a measure of economic welfare. The impact on real GNDI varies according to the level of overseas purchasing and the prevailing carbon price. See NZIER and Infometrics, *Macroeconomic impacts of climate change policy*, July 2009 and *Macroeconomic Impacts of the New Zealand Emissions Trading Scheme*, March 2011. Both reports were prepared for the Ministry for the Environment.

⁶ The extent to which this option is better than auctioning depends on the amount of NZUs auctioned. The greater the amount of NZUs auctioned the smaller the difference.

Withheld under section
56(a) 59(2) (j)

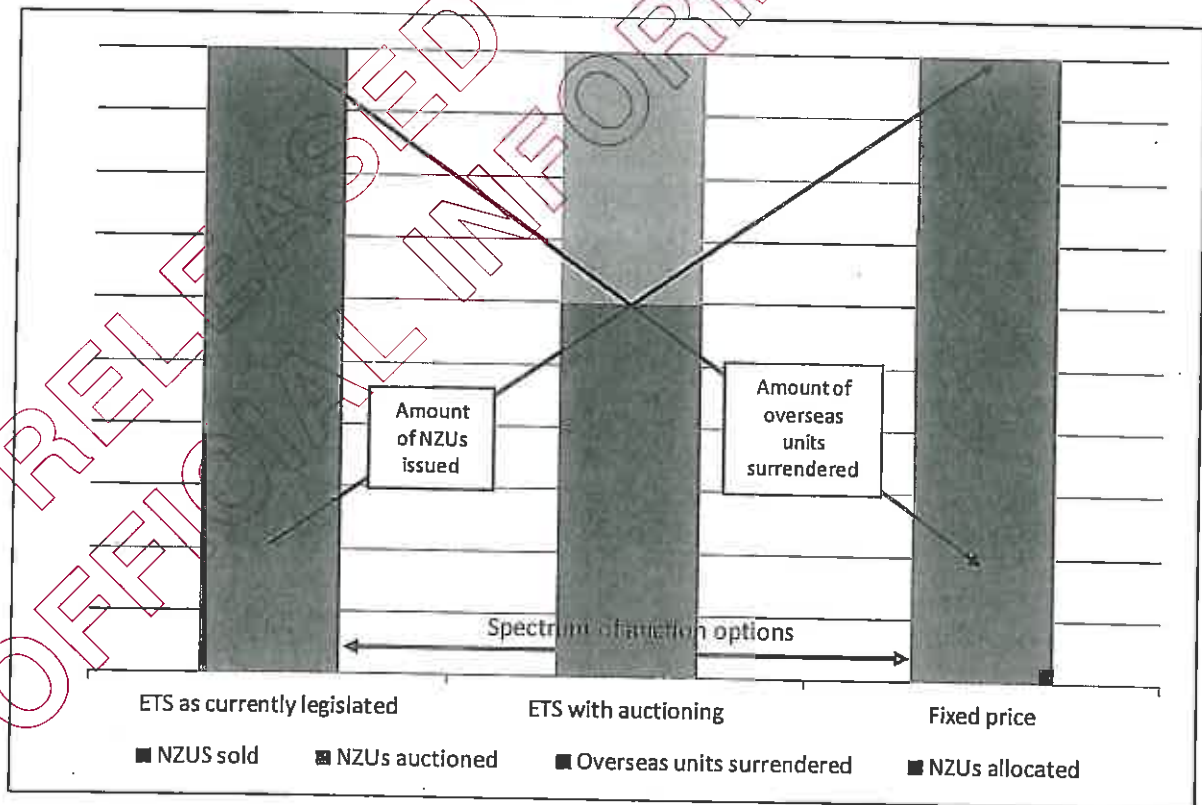
11.

12. On balance, officials do not recommend that Ministers pursue the fixed price option as this would significantly reduce New Zealand's flexibility. Officials propose that the February Cabinet paper seek approval (in principle) to amend the Act to provide for:
- auctioning of NZUs
 - an overall cap on the number of NZUs issued (auctioned and allocated)
 - a cap on the number of overseas units ETS participants can surrender in the ETS.

High level auction design

13. There are a broad spectrum of auctioning options (see figure 1 below). Key variables are the level of the cap on the amount of NZUs issued (and hence the amount of NZUs auctioned) and the stringency of any cap on the number of overseas units.

Figure A.1: Spectrum of auction options



14. At one extreme a small number of NZUs could be auctioned with no limit on the amount of overseas units permitted. This would be similar to the ETS as currently legislated.
15. At the other extreme, enough NZUs could be auctioned to achieve the level of ambition set with no overseas units permitted. Emissions over and above this level of ambition would have to be met through a price cap, if one existed, which would result in a system

similar to the fixed price option described above.⁷ If a price cap did not exist, activities that involved excess emissions would need to cease.

16. Given the risks involved with the ETS as currently legislated and the downsides associated with the fixed price option, officials do not recommend that Ministers implement auctioning at either of these extremes.

Cap on the amount of NZUs issued

17. Fixing the amount of NZUs auctioned in any one year will determine the overall cap on the overall amount of NZUs issued (i.e. auctioned and allocated) and the level of ambition likely to be achieved by the ETS. The more NZUs issued then the fewer overseas units likely to be surrendered, thus reducing the level of ambition achieved.
18. Officials do not propose that the February Cabinet paper seeks approval on the exact level of the cap on the amount of NZUs issued as further work and consultation is needed. It is likely that, given the need for flexibility around decisions, for example, on whether to join a second commitment period under the Kyoto Protocol, the level of the cap will need to be determined in regulations. Ideally the cap should be pre-determined with sufficient advance notice to provide market certainty to ETS participants (in terms of future supply of NZUs) and ensure environmental integrity of the ETS. Under the Australian Carbon Pricing Mechanism, a cap will be set in regulations from 2015 for the next 5 years, and updated each year.

Cap on the amount of overseas units permitted

19. If auctioning was introduced there is a risk that ETS participants may still choose to buy overseas units rather than buy NZUs through the auction. This would not reduce the level of ambition achieved or the loss of economic welfare. One way of mitigating this risk would be to introduce a cap on the amount of overseas units permitted. This would ensure ETS participants source part of their unit requirements through the auction.
20. However, such a cap may have an impact on the price of NZUs depending on its stringency and the amount of NZUs issued. The more stringent the cap on overseas units permitted and the smaller the increase in the amount of NZUs issued, then the greater the likely increase in NZU prices (compared to what it would have been absent such a cap). One way of mitigating the risk of excessive NZU prices is to introduce a price cap. The ETS as currently legislated has a price cap until the end of 2012 under the transition phase. Whether this should be extended beyond 2012 in any case is considered below.
21. To avoid the scheme becoming a de facto fixed price scheme, officials recommend keeping the cap on international units at a level sufficient to meet the compliance needs of participants, once both auctioning and allocation have been taken into account. Under the Australian Carbon Pricing Mechanism restricts the use of overseas units to 50 per cent of total obligations. At this level, it is expected that participants will be able to meet their obligations through buying overseas units and ensuring they participate in the auction.
22. Officials do not propose that the February Cabinet paper seeks approval on the level of any cap on overseas units. As with the cap on the amount of NZUs issued, it is likely that the level of the cap on overseas units will need to be determined in regulations. In addition, it should be pre-determined with sufficient advance notice to provide market certainty to ETS participants.

⁷ Under auctioning the Government fixes the quantity of NZUs sold and the market determines the price. Under the fixed price option, the Government fixes the price and the market determines the number of NZUs sold. Theoretically, the same price and quantity outcomes would arise under both options to achieve the same level of ambition.

When should auctioning be introduced?

23. An issue on which an early steer from Cabinet would be useful, is when auctioning should be introduced. One option is 2013 as this would mean greater flexibility is introduced in the ETS immediately after the end of the first commitment period under the Kyoto Protocol. This would allow the Government to achieve a lower level of ambition in 2013 and 2014 compared to the ETS as currently legislated.⁸
24. However, if the Panel's recommendation on the progressive phase-out of the one-for-two surrender obligation to 2015 is accepted then the level of ambition achieved would be reduced in these years in any case.⁹ This would reduce the need to introduce auctioning in 2013.
25. Another option is 2015 as this allows more time to develop and test the auction design and also coincides with:
 - a. when the number of international units surrendered is estimated to increase significantly¹⁰
 - b. when uncertainty in the international market increases significantly due to the end of the true-up period
 - c. the introduction of auctioning in the Australian scheme (so the two approaches could, if necessary, be more closely aligned).
26. Officials propose that the February Cabinet paper seeks an indication of whether an auction NZUs within an overall cap on the number of NZUs issued in the ETS should be introduced from 2013 or 2015.

Other auction design settings

27. Auctions can operate in a number of ways and there are a number of international examples available. Besides the issues identified above, further work and consultation is also required on a number of other auction design settings. Many of these settings are likely to be specified in regulation. Settings include:
 - a. the frequency of the auction, e.g. every month, quarter, annum
 - b. who can participate in the auction, e.g. ETS participants, financial institutions
 - c. the type of auction used, e.g. sealed bid auction, ascending clock auction.

Fiscal impacts

28. Auctioning would provide the Government with an advance receipt of cash at the point of auction, rather than eligible overseas units at the point of obligation. This would have a timing impact on debt, but not on the operating balance. This may provide fiscal benefits however is unlikely to count as additional fiscal revenue

⁸ Under current legislation the ETS is estimated to achieve about a 32 per cent reduction in emissions on 1990 levels in 2013 and 2014, based on the estimated amount of overseas purchasing. Note caveats in footnote 3.

⁹ If the Panel's recommendation was applied to the liquid fossil fuel, stationary energy and industrial process sectors only then the ETS is estimated to achieve about a 18 per cent and 24 per cent reduction in emissions on 1990 levels in 2013 and 2014 respectively, based on the amount of overseas purchasing. Adding synthetic gases and the waste sector would reduce these estimates to 16 per cent and 23 per cent respectively. Note caveats in footnote 3.

¹⁰ It is estimated in 2013 and 2014 that about 18m overseas units will be surrendered per annum. This increases to about 23m per annum on average between 2015 and 2020. Note caveats in footnote 3.

Legislative amendments

29. The Act does not currently prevent the Government from auctioning NZUs. However, officials propose that the Act should be amended to allow for this more explicitly and to provide for a regulation to be made setting out the detail of auctioning. It is likely that the Act would need to specify (at a minimum) the principles that will be adopted to determine the cap on the level of NZUs issued (and hence the number of NZUs auctioned) and/or the cap on the number of overseas units permitted. The level of these caps would then be included in the regulation. The regulation may also specify other auction design features. Further legal advice will be sought on what should be included in the Act and what should be included in the regulation.
 30. Officials therefore propose that the February Cabinet paper seek approval to amend the Act to explicitly allow for auctioning through regulation.
-

Summary of Cabinet decisions sought

31. In summary, officials propose that the February Cabinet paper seeks approval to:
 - a. (in principle) amend the Act to provide for by regulation:
 - i. auctioning of NZUs
 - ii. an overall cap on the number of NZUs issued (auctioned and allocated)
 - iii. a cap on the number of overseas units ETS participants can surrender in the ETS.
 - b. direct officials to conduct further work and to consult on the detailed auction design, including the level of the cap on the number of NZUs issued and the level of any cap on overseas units.

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2 Transition phase

One-for-two surrender obligation

32. Under the ETS as currently legislated, the one-for-two surrender obligation for the liquid fossil fuel, stationary energy and industrial processes sectors expires at the end of 2012. The key issue is whether this should be extended beyond 2012.
33. The Panel recommended that the one-for-two surrender obligation should be extended and phased out over three years to 2015. In reaching this view, the Panel balanced short-term business competitiveness concerns against providing certainty and incentives to reduce emissions in the long term. The Panel also recommended that synthetic greenhouse gases and waste sector should also benefit from the phasing out of the surrender obligation to ensure equal treatment of these sectors when they enter the ETS in 2013. Together, this entails an additional fiscal cost of about \$400 million between 2013 and 2015 (based on a \$25 carbon price).
34. The NZU price has fallen significantly in recent months. The market value of a NZU fell to \$7.80 on 15 December. Taking the one-for-two surrender obligation into account, this means the effective price of carbon is currently below \$4 per tonne. This is significantly below the expected effective price of \$12.50, based on the \$25 price cap and one-for-two surrender obligation. This means that businesses are not currently facing a high cost of carbon (whether directly or indirectly) and their competitiveness is unlikely to be impacted significantly.
35. As noted above, while there is uncertainty about future NZU prices, it is likely that prices will remain low in the short term, particularly in the period to 2015. It is likely therefore that the competitiveness impacts will be minimal in the period to 2015, even without the one-for-two obligation.
36. The table below compares the Panel's own analysis of the impact of its recommended phase out of the transition phase on businesses and households, which was based on a \$25 carbon price, with the impact of ending the one-for-two at the end of 2012 as legislated, based on a \$10 carbon price.

Comparison of the Panel's Analysis of the Impact of its Recommendation with \$10 Carbon Price

	Panel's Recommendation – Panel's analysis, assuming a \$25 Carbon Price	Status Quo – pro-rated, assuming a \$10 Carbon Price
Impact on total business expenditure energy \$ million (% GDP)		
2013	\$465m (0.3% GDP)	\$280m (0.2% GDP)
2015	\$702m (0.4% GDP)	\$280m (0.2% GDP)
Impact on average household expenditure on energy \$ per annum (% gross income)		
2013	\$176 pa (0.2%)	\$110 pa (0.2%)
2015	\$266 pa (0.4%)	\$110 pa (0.2%)

37. Officials recommend that Ministers consider not extending the one-for-two obligation. This would significantly reduce the fiscal costs of the ETS amendment package and therefore increase flexibility around other policy settings.

Fixed price option

38. Under the ETS as currently legislated, the \$25 fixed price option (or price cap) for the liquid fossil fuel, stationary energy and industrial processes sectors expires at the end of 2012. The key issue is whether this should be extended beyond 2012.
39. The Panel recommended that the fixed price option should be extended to 2017, increasing by \$5 per annum. The Panel reached its view on the basis that this would protect businesses from future price shocks. The Panel also recommended that synthetic greenhouse gases and waste sector should also benefit from the fixed price option. The Government has said it intends to extend the price cap to 2015 at the current level of \$25. Extending the price cap could create a fiscal risk.
40. As noted above, it is likely that overseas unit prices are likely to remain low in the short term. However there is a possibility that prices could increase significantly given international market uncertainty. This could result in excessive costs being imposed on New Zealand businesses relative to their international competitors.
41. Officials are therefore of the view that the price cap should be extended to 2015 as an insurance policy against excessive costs being imposed on ETS participants. Officials also propose that the price cap also be extended to cover the synthetic greenhouse gases and waste sectors, as recommended by the Panel, to ensure equal treatment.
42. From 2015, officials are of the view that there should be flexibility over the level of the price cap so that it can be aligned with that under the Australian. *[Withheld under section 56(a)]* Officials therefore propose that the Act is amended to allow for the price cap (and the ban on export of NZUs from non-forestry sectors) to be changed to align with the Australian scheme should linking proceed. Further legal advice will be sought on the appropriateness and feasibility of this approach.

Ban on export of NZUs from non-forestry sectors

43. A price cap introduces an arbitrage risk if the price of overseas units is above the price cap. This is because ETS participants could buy NZUs from the Government at the price cap and then sell them overseas at the higher overseas unit price. This could create a significant fiscal risk for Government and could undermine the integrity of the ETS. The ETS as currently legislated has a ban on export of NZUs from the non-forestry sectors during the transition phase to mitigate this risk.
44. Recognising this risk, the Panel recommended that the ban on export of NZUs from the non-forestry sectors be removed when the price cap is removed or sooner if the price cap is significantly above the international carbon price (i.e. when the risks of arbitrage are very low). Officials agree with this recommendation.

3 Synthetic greenhouse gases

Overview

45. Under its Terms of Reference, the Panel was asked to give particular attention to the inclusion of synthetic greenhouse gases (SGG) within the ETS. The Panel made 8 recommendations with regards to SGG. The analysis below focuses on the 3 areas recommended for the treatment of SGG under the ETS, these are:
- a. banning wilful leakage of synthetic greenhouse gases
 - b. point of obligation for sulphur hexafluoride emission
 - c. motor vehicle air conditioning and the ETS
 - d. importing refrigerants in goods and the ETS
-

Banning wilful leakage of synthetic greenhouse gases

46. The ETS will substantially increase the cost of synthetic greenhouse gases. People who operate and service SGG-using equipment will be cost-encouraged to minimise gas leakage. There may still be market failures where the increased cost will not change behaviours. An example could be where service technicians are able to spill gas but still be fully reimbursed from their customer.
47. Leakage of ozone depleting substances is banned under relevant legislation. The Panel and submitters recommended there be an identical ban on the wilful release of synthetic greenhouse gases. This could be incorporated in the Act and use language and penalties that are identical to that used in the Ozone legislation.
48. Officials consider the value of such a ban is net positive. While it is essentially unenforceable (direct observation of all opportunities for wilful leakage is impossible), this is no different to the ban on releasing ODS. Anecdotal evidence from industry and officials is that the prohibition has changed behaviours through its integration in training programmes and as a result of wide industry publicity of two convictions. There would be no costs from imposing such a ban on SGG leakage aside from initial messaging and education.

Sulphur hexafluoride activities

49. The ETS currently makes any and all importers of sulphur hexafluoride (SF₆) mandatory participants for the entire amount of SF₆ they import in a year. The Panel and submitters consider this is inequitable, as the government has international obligations only for the actual emissions, which in the majority of applications occur over 50 years after importation.
50. The preferred way to address the problem is to make the user of SF₆ the ETS participant. Importers would not be required to participant in the ETS (and exporters would not be eligible as a removal activity). Enabling this change would require amendment of the schedules and regulations of the ACT.
51. It is proposed that the activity description be changed to "using SF₆ in electrical switchgear when total SF₆ installed is greater than 1 tonne". This would mean 80 per cent of emissions would be priced by the ETS, but only 5 firms would have obligations. All of those five firms already carry out detailed SF₆ leakage monitoring, and consequently the administrative and compliance costs from the change would be minimal.
52. Alternative policies include requiring importers to be responsible for only the SF₆ considered leaked in the year, or to make all users of SF₆ ETS participants. The preferred policy change is considerably stronger than those other options.

SGG levy on motor vehicle imports

53. As is the case with the other SGG activities, any importer of SGG in a motor vehicle is an ETS participant. There is a threshold of about 110 cars per year, and each importer is allowed to deduct 100tCO₂-e from their emissions obligation. Despite this softened ETS policy, the Panel and submitters considered that the administrative and compliance costs would still be relatively considerable.
54. Officials have been assessing an alternative policy of placing an import SGG levy on motor vehicles. This could be enabled through the Act and would involve amendment of the Act and the Land Transport (Licensing) Regulations. All motor vehicles must pass a series of checks and pay certain license fees on import before they are permitted to be used on roads. The SGG levy could be part of this process.
55. The levy approach has numerous advantages, including considerably reduced administrative and compliance costs for importers and the government, and extra 'ETS' revenue from the removal of the threshold and the 100tCO₂-e allowance. However it lacks environmental integrity, as payment of the levy would not be directed at emission reductions elsewhere as would otherwise occur through the purchase of emission units under the ETS.
56. Officials consider the advantages of the levy system outweigh the environmental integrity concerns, especially if a commitment could be made to direct a proportion of levy revenue into emission reduction activities or support elsewhere in the economy.

SGG in goods other than motor vehicles

57. Currently, all importers of goods that have SGG in them have ETS obligations. Importers are required to determine the SGG mix in the good and its quantity, calculate potential emissions, and report and surrender units from 2013. There are no default emission factors, nor is there a threshold.
58. Examples of these goods are refrigerators, ice making machines, air conditioning units, some aerosols, and some fire extinguishers.
59. The Panel recommended that SGG imported in goods and considered that ETS transaction costs would be too large, and could be reduced for importers if a levy was based on simplified assumptions about categories of goods and the SGG they contain.
60. Officials have been considering policy alternatives to the ETS and have determined three options:
 - a. amendment of the NZ Working Tariff Document to allow levy collection by the Customs Service
 - b. an import licensing and tariff system, as is developed in Australia, to be managed by an agency other than the Customs Service
 - c. retention of the ETS coverage but with a threshold to reduce the number of likely mandatory participants
61. The favoured option is the use of the Working Tariff Document. This would utilise existing levy collections systems, provide high certainty on compliance, and depending on the levy metric (SGG content, energy output per hour, or other) result in reduced administrative costs for importers.
62. An importer would complete import documentation that identifies the Tariff codes that the goods are classed as. If the value of the goods is over \$400, then Customs will seek GST and other fees from the importer, irrespective other whether the goods are for personal or business use.

63. The Working Tariff Document will need modification for this option to work because the current classifications are too broad to be meaningfully used. Officials from MfE, MED, and the Customs Service are currently identifying the best set of changes. Amendment to the ACT and various regulations will be required to implement the levy.
64. Consultation with industry is required before changes can be made to the Working Tariff Document. It is proposed that such consultation be carried out over March/April 2012.

Eligibility as a removal activity when exporting SGG

65. Currently all exporters of SGG will be eligible for emissions units from the government from 1 January 2013. A lot of bulk imported SGG is used in equipment manufacturing which are then exported. The current policy allows exporters to recoup the increased cost of purchasing bulk SGG from domestic suppliers by selling the removal units earned.
66. Officials are concerned that this sets up an opportunity for arbitrage. Under the current policy, people can import SGG prior to 2013 without ETS costs, but then be eligible for 'removal units' when the same SGG is exported. For example, if someone imported 10 tonnes of R404A to take advantage of the policy, they will be eligible for (10×3260) (the GWP for R404A) = 32,600 units for the costs of short term storage, transport, and any marginal difference between purchase and sale price. At \$25/unit, this is a fiscal cost to the government of over \$800,000. Repeat this across several different people and include a few tonnes of R23 (GWP is 11,700) then it is clear there is possibly substantial fiscal risk from this arbitrage.
67. This risk will only occur in the next year. Unfortunately officials will only know the size of the problem after mandatory reporting is complete in 2013. This will be too late as exports would have occurred before then.
68. It is possible to remove the opportunity for arbitrage by permitting importers of bulk SGG to deduct the gases supplied to manufacturers that is re-exported from their ETS obligations. A particular set of documentation will be needed for this 'subtraction'. The importer would not be allowed to pass on any ETS/levy costs to the manufacturer.
69. The benefits of this changed policy include addressing the risk of arbitrage as well as industry concerns about the increased costs of carrying stock prior to export. However, the policy will need careful consideration of the information needed between supplier and manufacturer to avoid gaming. It might be tricky to apply to gases that pass from importer to supplier to manufacturer.
70. Implementing any such policy change will require amending schedule 4 to remove exports of SGG in goods from the list of removal activities, and make it explicit that SGG in bulk is an eligible removal activity if the gas is destroyed and prescribed documentation is provided. Other changes will be necessary to regulations to enable the deduction of SGG supplied to manufacturers for export from obligations, as well as prescribing particular documentation.
71. The Panel did not consider this issue. Consequently it may need consultation with industry prior to Select Committee consideration of legislative changes.

4 Offsetting and cancelation of the second tranche

72. Some pre-1990 forest is on land that could potentially be more productive in a non-forestry land use. ETS deforestation liabilities at a high carbon price (e.g. \$25) effectively limit forest owners' ability to convert forest to a more productive land use. Offset planting in the ETS would allow more land use flexibility for pre-1990 exotic forest land.
73. Forest owners have stated that at the current carbon price of \$10 it is more viable to convert high value land to dairy and pay the ETS liability than apply an offsetting approach.
74. In spite of this, it is expected that forest owners may still seek an offsetting option to hedge against higher carbon prices in the future. This section outlines how an offsetting policy could be implemented in the ETS consistently with the flexible land use rule agreed in Durban. This section also explains some of the risks associated with an offsetting option in the ETS and discusses some options Ministers could consider to manage this risk.

Offsetting policy based on Durban outcomes

75. New Zealand has not yet decided if it will sign-up to the Kyoto Protocol's second commitment period (CP2). Nonetheless, the elements of any domestic offsetting policy should follow the flexible land-use (FLU) rule agreed in Durban as part of the Land Use, Land-Use and Forestry (LULUCF) rules for CP2. Departure from the international FLU rule in the ETS could create liabilities should New Zealand sign-up to CP2 in the future or if the rule is applied retrospectively as part of any legally binding agreement after 2020.
76. The key features of the FLU rule are:
 - a. FLU applies to harvest of pre-1990 forests from 2013. Any pre-1990 forest harvested in first commitment period (CP1) (2008-2012) that is converted to non-forestry land from 2013 will be counted as deforestation occurring in CP1 and will increase New Zealand's CP1 Kyoto liability.
 - b. The offset planting must be established on land that would qualify as post-1989 forest land, but this land will not earn credits for sequestration.
 - c. The offset planting must be established through direct human-induced planting and/or seeding. It excludes human induced promotion of natural seed sources (ie allowing natural forest regeneration).
 - d. The offset planted area must be at least equal to area deforested and achieve the same carbon stock within the same rotation length of the deforested forest.
77. FLU is part of "forest management accounting" in CP2 and accounted for within a "reference level" approach. New Zealand's "reference level" is a projection of our expected net emissions from pre-1990 exotic forests. If New Zealand's actual net emissions from pre-1990 forests exceed the reference level, New Zealand faces a liability. If net emissions are below the reference level, New Zealand earns credits (capped at approximately 2 Mt CO₂).
78. New Zealand's reference level included pre-1990 exotic forests only, as currently the indigenous forest is assumed to be in a steady state of carbon loss and gain. The basis of New Zealand's agreed reference level is explained in briefing B10-463. There is limited ability to change New Zealand's reference level in the future.
79. The reference level includes some emissions as a result of offsetting. However, the uptake of offsetting could be higher than estimated if the economics for land conversion in the future are more favourable than expected (e.g. increase in dairy and/or timber

prices). An unrestricted offsetting system in the ETS could see high levels of harvesting and conversion due to offsetting occurring from 2013. As a result, New Zealand's net emissions could increase above the reference level, creating liabilities for New Zealand and fiscal costs for the Crown.

Managing the fiscal risk from offsetting

80. Domestic policy settings should therefore take into account the risks associated with the uncertainty of future accounting with any change to reference level, the continuation of the FLU rule in a future accounting framework post-CP2, and the potential increase in harvest emissions with offsetting.
81. The Crown could minimise the fiscal risk from offsetting by limiting the amount of permitted offsetting. Limiting the amount also manages the flow of emissions through time and avoids any 'rush of forest' as owners seek to offset before the end of CP2.
82. Options for a limit on the amount of offsetting include:
 - a. A cap the area of permitted offsetting. The cap could be set at the estimated pre-1990 forest area better suited to non-forestry land uses. While this would manage the Crown's fiscal risk, the main disadvantage of an area cap is that not all forest owners may be able to undertake their full programme of deforestation/conversion when they wish to do so. An area cap also requires a system to distribute the cap, which could be administratively difficult.
 - b. Only permit offsetting of mature forests (26-39 years or above). Trees between 26 and 31 years represent about 18 per cent of the current age class of pre-1990 forests. This reduces the need for an administrative system to distribute the cap, but would still place limits on forest owners' ability to undertake offsetting as they would ideally like.
83. Further work would be required to analyse these or other approaches to manage the risks of liabilities. It is likely consultation on the offsetting design will be required.

Links of offsetting with the cancellation of the second tranche

84. The purpose of the pre-1990 forestry allocation was to compensate owners of pre-1990 forest land for the economic impact of deforestation liabilities they could face because of the ETS. These liabilities have an impact on the land value, as they create encumbrances related with a potential land use change, in particular when the land has the potential to change to a higher and better land use (than forestry).
85. Most pre-1990 forest land owners have already applied for their free allocation. Many have already received or will soon receive the first tranche. The second tranche will be distributed in 2013.
86. The Panel recommended clawing back the second tranche of pre-1990 forestry allocation if offsetting is introduced and taken up by a forest owner. [Withheld under s9(2)(g)(i)]
87. Offsetting reduces the cost of deforestation liabilities, making pre-1990 forest land conversion to a higher value land use more viable for owners. Offsetting still involves a cost on deforestation, however, and the policy settings will have an impact on the value of the offset planting land. This is because the offset forest will be established on post-1989 land which is devalued because it loses its land-use flexibility, and will also lose its potential to earn carbon units for sequestration.
88. The options for the second tranche cancellation are presented in Table A.2 (MfE 11-B-01834/ MAF B11-355 refers). These include cancelling all the second tranche, and the Panel's recommendation (see Table A.2).

Table A.1: Second tranche cancellation – options and estimated fiscal savings

Scenario	Second tranche cancellation	Fiscal savings of cancelling second tranche at \$25 carbon price	Commentary
Status quo	All second tranche allocated	\$0	No savings, no increased risk.
Total cancellation	Cancel the entire second tranche for all pre-90 forest owners, whether they elect offsetting or not	\$773m	Maximum savings but potential risks, Withheld under s 9(2)(h)
Partial cancellation	Cancel second tranche only for those electing to offset (Panel recommendation)	\$4m to \$148m	Minimal savings, but no inequities and much lower risk.

89. Another option is a pro-rata cancellation across all allocation categories, up to the value of the cost of other ETS changes. This option will apply equally to all forest owners. [Withheld under s 9(2)(h)]

90.

91.

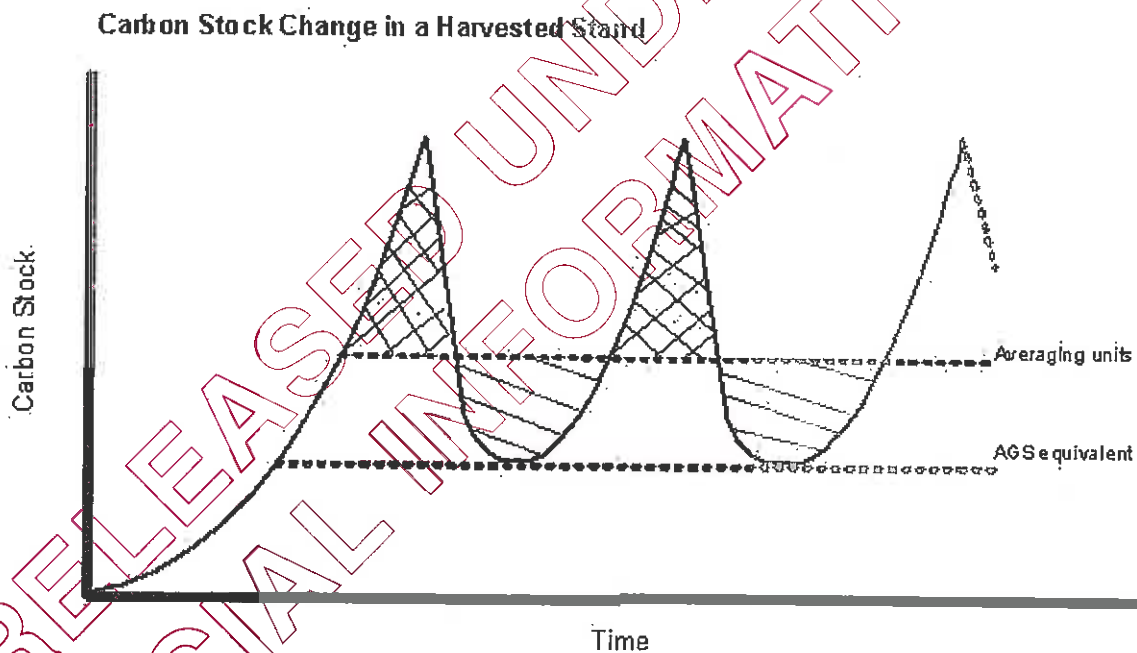
Withheld under section 59(2)(h)

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5 Averaging

92. The Panel noted that some post-1989 forest owners may be reluctant to join the ETS because of perceived liability risk following harvest. To address this, the Panel recommended that averaging be available as an option for post-1989 forests from 2012. It also recommended that government consider a ceiling on the size of forest that could utilise the averaging option.
93. Averaging is most sensibly assessed as a policy option in the context of other forestry policies – especially the Afforestation Grant Scheme (AGS). There are two issues that averaging can potentially assist with; that of a potential under-investment in new forests, and around the management of default risk associated with the carbon costs associated with harvest.
94. Averaging can be conceptualised in the diagram below (under averaging, a participant would receive units up to the level of the dotted line titled "averaging units").

Figure 1: Stylised View of Averaging



95. In terms of **benefits**, averaging has the potential to reduce risks of under-investment in new forest plantings, especially for potential owners of small forests (owners of small forests have very few mechanisms to manage the carbon costs associated with harvest so will tend not to gain the full potential carbon benefit from new plantings). Averaging would be likely to provide a higher level of revenue for new plantings than the AGS.
96. In theory, this under-investment should only be occurring amongst small forest owners – as large forest owners can implement practices (eg. managing mixed age forests) that have an effect not terribly dissimilar to averaging within their own operations.
97. In addition to this, the risks of default under an averaging regime are likely to be less than under the full carbon accounting approach of the existing post-1989 forest regime. Under averaging, participants do not face costs on harvest and the Crown, so long as it is sufficiently conservative in determining how many units to allocate to participants – and it did not overextend its carbon position – would also be able to protect itself from carbon costs associated with harvest of forest. Averaging would only provide a moderate benefit in terms of reducing these risks however.

98. Averaging does have policy and implementation costs associated with it. The operations of the carbon-related forestry policies are already complicated and difficult to understand. While averaging is conceptually simple and may be easier for some participants to understand, it would add another layer of complexity to an already complicated area of public policy. Further, there would be a cost in terms of the removal of incentives to manage the carbon costs associated with harvest. The removal of carbon costs associated with harvest from foresters' decision-making processes would significantly reduce prospects of decisions being taken to, say, extend forest rotation lengths to optimise carbon within a forestry regime, even though such a decision may be highly beneficial from a national viewpoint.

Conclusion: averaging

99. Averaging is of benefit in reducing risks of under-investment in small, new forest plantings, and this would assist with the management of New Zealand's future carbon liabilities – especially through the 2020s and early to mid 2030s. If the AGS (or near equivalent) were to continue the benefit of averaging would be smaller than if the AGS were not to continue. Averaging is not a perfect option to manage default risk associated with harvest – but it may assist in this regard.

100. Averaging would complicate an already complicated area of public policy. Initial analysis is that averaging could be implemented largely on the back of existing processes but that would need to be confirmed. Further, incentives to factor carbon costs into decisions on harvest of forest would be lost (or at least reduced) for "averaged" forests, and the loss of these incentives could be significant. If averaging were to be extended to existing forests – as opposed to only new forests – then there would be fiscal costs involved. These have not yet been quantified. Some may argue, on equity grounds, to allow new forests to access an averaging regime, and not extend that option to existing forests.

101. Given these arguments, MAF would recommend that if Ministers wish to implement averaging, the following design elements are pursued:

- a. Averaging is available for small forest owners only. The threshold is likely to be 100 hectares (the maximum size threshold of the field measurement approach to assessing carbon stocks in forests). Officials will do further work and provide final advice on the threshold in February.
- b. Averaging is only available for forests planted after 2012 (i.e. forests planted from 2013 onwards).

102. There might also be some value in making averaging mandatory for any forest owner meeting the above criteria who wishes to put their forest into the ETS (i.e. prohibiting the owner from using the existing post-1989 forest full carbon accounting approach). Officials are doing further work to assess the costs and benefits of this and will report back in early 2012.

6 Waste

103. Remote, less economically robust communities may face higher ETS costs per tonne of waste than urban communities because larger landfills often have landfill gas systems that result in fewer emissions per tonne of waste disposed. Larger landfills also have the ability to achieve lower payback periods for costs associated with developing and applying for a unique emissions factor. Those costs are prohibitive for smaller landfills, and are another reason why the impacts of the ETS on small landfills are expected to be different to those incurred by large landfills
104. In this context, the following problems arise with the ETS after 2012:
- Undesirable environmental outcomes from increased illegal waste disposal activities such as fly tipping or backyard incineration, because of the higher gate fee to dispose waste in the landfill
 - Reductions other council provided resources and services if the ETS costs were not passed onto landfill users through higher gate fees
105. There is some empirical evidence connecting price sensitivity to fly tipping (disposing waste illegally in back paddocks, down gullies etc). Council staff have described it as a "mostly a short term" problem following any increase in gate fees.
106. For some communities, there may be a larger incentive to illegally dispose waste where they cannot afford increased (or any) landfill fees due to the combination of a lack of emissions mitigation opportunities for the landfill and greater opportunities for illegal disposal through community isolation
107. Illegal waste disposal leads to negative environmental outcomes including soil, water and air pollution. It creates costs for councils to police and remove, some of whom may already be under resource stress through partially or wholly absorbing ETS and other waste disposal costs. It is therefore important to consider the role of the ETS in driving more of those outcomes.
108. There was a concern that some small councils will choose not to pass on the ETS costs to landfill users, instead absorbing the increased landfill operating cost out of existing budgets or recovering the costs from ratepayers. The concern included possible impacts on waste management budgets and thereby forcing reduced efforts in waste minimisation.
109. Interviews with council staff have provided evidence that the ETS will not affect waste minimisation budgets or activities. In fact, increasing the costs for disposing waste is expected to increase community waste minimisation activities and raise awareness.
110. However, there is evidence that some councils are considering absorbing some of the ETS costs through adjusting existing service levels, other than waste minimisation, and recovering some of the costs through general rates. Obviously in these situations no price incentive is being felt by landfill users, therefore no mitigation activities will occur. Instead, negative impacts will occur to council services and the economic situation of ratepayers.

Regulatory impact analysis

111. Two options have been identified that could reduce the potential negative impacts of broad ETS coverage of landfills. An outline of these options is set out in the table below.

Table A.3 Options to reduce ETS impacts on the Waste sector

Option:	Status quo	1: Exempting certain landfill operators by defining eligibility criteria using section 60 of the Climate Change Response Act	2: Provide financial and technical assistance to small landfills that service isolated and economically disadvantaged communities
Key features:	<ul style="list-style-type: none"> All landfill operators have ETS obligations 	<ul style="list-style-type: none"> Exemption criteria will need to be a combination of landfill size, distance from other facility, and economic resilience of the community it services To avoid creating an incentive to open new landfills, the exemption will need to be limited to those already operating Exemptions could be created using section 60 of the Act, or through amendment of Schedule 3 activity description 	<ul style="list-style-type: none"> The objective of those measures will be to reduce the negative impacts that disproportionately affect those small communities. One example is to provide transitional financial assistance for managing fly tipping

112. On balance option 1 is preferred.

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7 Agriculture in the ETS

113. Under current settings, agriculture sector participants must report their emissions from 2012 and face full surrender obligations from 2015. Ministers have indicated their intention to review the 1 January 2015 date on which the agriculture sector incurs surrender obligations.
114. You have indicated that you may wish to introduce a regulatory power to defer the 1 January 2015 date from which the agriculture sector incurs surrender obligations, should this be the outcome of the 2014 review. Officials will provide advice on options for a regulatory deferral power in the February Cabinet paper.
115. Irrespective of whether the agriculture sector incurs full surrender obligations in 2015, you have previously indicated your desire to progress several other proposed amendments to the ETS's agriculture settings: (a) the exclusion of layer hens to relieve egg producers of the need to report their emissions from 2012; and (b) inclusion of DCD as a removal activity – both recommended by the Agricultural ETS Advisory Committee and discussed further below.

Inclusion of DCDs in the ETS as a removal activity

116. You previously asked officials to examine further the practicalities of providing credits for DCD application under the ETS and the implications of this for other sectors [B10-629; 11-B-01189 refers]. This followed the first report of the Agriculture ETS Advisory Committee, which recommended that DCD be included in the ETS as a "removal activity" enabling farmers to receive carbon credits for DCD use.
117. Officials' analysis is that including DCD in the ETS as a removal activity with farmers able to obtain carbon credits for DCD use on-farm provides the greatest net benefit to farmers and hence the greatest incentive for up-take of DCD. The exception is small landowners, where the costs associated with giving credit for DCD use mean that offering a grant rather than carbon credits may be a more viable option. This net benefit exists whether the agriculture sector faces emissions liabilities or not.
118. Agriculture accounts for 47 per cent (i.e. 32.8 Mt CO₂-e) of New Zealand's greenhouse gas emissions, with approximately one third of those emissions coming from nitrous oxide. Recently the nitrification inhibitor, DCD, has been included in New Zealand's greenhouse gas inventory as a "mitigation technology" for agriculture. When applied to pasture it can reduce nitrous oxide emissions on-farm (from urine, dung and fertiliser) by up to 25 per cent on an annual basis. As it is recognised in New Zealand's national inventory, all documented applications of DCD to pasture can reduce New Zealand's internationally reported emissions and liability (if any).
119. There are also co-benefits to DCD use on-farm. DCD reduces the level of nitrogen that is leached through groundwater into waterways, which could improve water quality in certain catchments. DCD has been shown to increase dry matter production (by an average of 3-5 per cent, with a range of 0-20 per cent), which could enable an increase in production on some farms. There are no reported adverse effects of long term DCD use.
120. There is currently no mechanism to incentivise farmer uptake of DCD. Without significant up-take, emission reductions on individual farms are unlikely to have a noticeable impact on national emissions. Accordingly, officials recommend including DCD as a removal activity to provide an incentive for uptake, subject to a size threshold and the possibility of a grant scheme for farmers below the threshold.
121. The proposed approach is consistent with the Carbon Farming Initiative (CFI) in Australia. Under the CFI, farmers will be offered exportable Kyoto compliant offset credits for approved greenhouse gas abatement activities on-farm. Recognising

agricultural abatement as a removal activity in the ETS (at farm level) will assist alignment with the Australian scheme.

122. While officials do not expect the fiscal costs of including DCD as a removal activity to be high, further work is required to verify this. Officials are currently analysing the costs and will provide advice in February.
123. Including DCD as a removal activity does involve some risks. Defining activities that reduce greenhouse gas emissions on-farm as "removal activities" with farmers as the participants could be seen as a departure from the approach in other sectors. In other sectors, actions taken to reduce emissions further down a supply chain from the point of obligation for liabilities tend not to be defined as "removals". Doing so for DCD could be seen as a precedent.
124. This issue could be overcome by giving credits for DCD use to DCD importers, but officials do not recommend this. DCD importers may not necessarily face liabilities, as they are not necessarily fertiliser importers or manufacturers, or meat or milk processors. In addition, providing credits upstream for on-farm abatement activities provides no clear benefit to New Zealand given the uncertainty over: (1) how benefits would be passed back to farmers (which is crucial for uptake); and (2) how processors could effectively monitor and report emissions reductions that occur on-farm. In any event, Officials do not consider the precedent risk is high because of differences between market structures between sectors, how ETS participation is defined, and the current availability of mitigation technology in other sectors. Any deferral of agriculture liabilities will also mitigate this risk.
125. Another risk of including DCD in the ETS as a removal activity at this time is that it leads to a wider debate about how Government can best incentivise the uptake of mitigation technologies in general on New Zealand farms. Officials are continuing to explore options for incentivising the uptake of agricultural mitigation technologies in general and will report back to Ministers in due course.

Removal of layer hens from the ETS

126. You previously asked officials to explore legal options for excluding layer hens from the ETS [B10-629, 11-B-01189 refers]. This followed the first report of the Agriculture ETS Advisory Committee, which recommended excluding layer hens from the ETS because the administration and compliance costs of their inclusion outweighed the benefits.
127. It is necessary to amend the Act to exclude layer hens from the ETS. Officials recommend doing so because, as concluded by the Agriculture ETS Advisory Committee, the administration and compliance costs of egg producer participation exceed the benefits. Egg producers are estimated to be nearly half of the 200 or so agriculture participants, but only produce 0.08 per cent of agricultural emissions. For many, the cost of complying is likely to exceed the value of their liabilities. Furthermore, the lack of mitigation technology and the relatively low cost impact of 0.1 cents per dozen eggs suggest that behaviour change to reduce emissions due to the ETS is unlikely.
128. Removing egg producers from the ETS would produce a net benefit to New Zealand, although the Crown will lose \$165,000 of revenue over the period 2015 to 2020 (at a carbon price of \$25 per tonne) as egg producers no longer surrender units to meet their emissions liability.

Processes for participants to obtain an allocation of NZUs and meet liabilities

129. From 2016 there will, under current legislation, be separate annual processes for agriculture participants to: (a) obtain an allocation; and (b) report annual emissions and surrender units. Participants will use the same information to obtain their allocation and

report their emissions, so separate processes result in duplication and involve unnecessary costs for the Crown and participants.

130. Separate processes also create a credit risk for the Crown since participants will receive a large allocation of units which they need to surrender back to the Crown a short time later. In early 2016, for example, units worth up to \$770m (at \$25/NZU) could be allocated before 2015 liabilities worth \$850m are due. Participant fraud or insolvency could result in participants failing to surrender these units to meet their liabilities. A small meat or dairy processor fails about every other year. This creates a fiscal risk in the order of \$5m for the period 2015-2019.
131. Merging the two processes and charging only the net liability (\$80m) would most effectively mitigate these risks. It would also reduce compliance and administration costs. However, there are possible benefits of separate allocation: some participants may trade with allocated units, and this may improve carbon market liquidity.
132. Consultation with industry would enable an assessment of these possible benefits against the costs of the separate processes. Officials therefore propose seeking Cabinet's agreement in February to seek feedback from stakeholders on a merged process.

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