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Ministry for the Environment
Manatū Mō Te Taiao

To: Hon Simon Bridges, Acting Minister for Climate Change Issues
CC: Hon Tim Groser, Minister for Climate Change Issues

Fiscal and economic impacts of potential ETS policy options

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Executive Summary

1. As requested, this briefing note provides you with initial policy advice and information on the fiscal impacts of a package of potential policy options specified by your office for amendments the New Zealand Emissions Trading Scheme (ETS). These options are:
   - the introduction of auctioning;
   - extending the '2 for 1' surrender obligation until 2020;
   - suspending the 1.3% per annum phase-out of industrial allocation until 2020;
   - including costs associated with fugitive coal seam methane emissions in industrial allocation to coal users;
   - including stationary energy use of liquid fossil fuels as an emission source eligible for industrial allocation;
   - adopting the Australian approach to industrial allocation for the activity "manufacture of carbon steel from cold ferrous feed", classifying this activity as a highly emissions intensive activity eligible for 90% allocation - as requested by the Pacific Steel Group;
   - a $10m 'low carbon fund'; and
   - deferring surrender obligations for agricultural greenhouse gases until 2020;
2. Officials note that you have not yet received a full analysis of the submissions and issues raised in the consultation on ETS amendments that closed on 11 May. We recommend that you make decisions after you receive this analysis.
3. On that basis, the Ministry for the Environment's initial policy advice is:

- not to extend the '2 for 1' to 2020 - as this is a fiscally expensive but inefficient way of reducing the short term competitiveness impacts of the ETS, which may dilute long term signals to invest in lower carbon technologies and complicate efforts to build international carbon markets after 2015; but
- to consider, if short term competitiveness issues are a concern, adopting the Panel's recommended '2 for 1' phase out between 2013 and 2015 and / or a temporary increase in starting allocation rates that will offer industrial allocation recipients the benefits of the '2 for 1', more effectively targeting assistance at a much lower fiscal cost;
- not to suspend the 1.3% phase out of industrial allocation, as this will reduce costs for allocation recipients very marginally in the short term, whilst diluting long-term signals; but
- ~~to consider industry requests to add liquid fossil fuels and fugitive coal seam methane to the list of eligible emissions source for industrial allocation and to consider adopting~~ the Australian approach to industrial allocation for the activity "manufacture of carbon steel from cold ferrous feed"; and
- to explore mechanisms to provide further support to more emissions-intensive firms (including those who do not qualify for allocation), to assist them to make low carbon investments which will reduce their exposure to ETS costs over time. This may or may not include a $10m low carbon fund;
- not to make a decision to defer surrender obligations for agriculture at this stage, to allow for a fuller consideration and analysis of the two conditions Ministers have placed on the imposition of these obligations.

4. Estimates of the fiscal cost of the package of options put forward by your office are summarised in the table on the next page.
5. As requested by your office, fiscal estimates are provided on the basis of a carbon price of $6.35, which is the NZU spot price reported by Point Carbon as at 10 May 2012. Officials note that official carbon price estimates in the Crown accounts are currently based on the price of a Primary Certified Emission Unit (pCER), which was $10.47 as at 16 May 2012. This official carbon price is subject to review, but unless the accounting recognition changes prior to Cabinet decisions, the pCER price will be the basis for estimates of the total fiscal cost of the ETS changes. This paper therefore contains two sets of estimates of the total fiscal cost of the package of policy options - one based on a carbon price of $6.35 and the other based on a carbon price of $10.47.
6. As agreed with your office, Ministry for the Environment and Treasury officials will jointly prepare a separate briefing note setting out background on the fiscal treatment of the ETS, including the methodology for valuing units in the ETS.
7. If all of the elements in the package of options put forward by your office were implemented within the ETS, the fiscal cost would be **$400.6m** (around $120m in 2014/15) across the forecast period at a carbon price of $6.35. The annual fiscal cost would grow further between the forecast period and 2020. Officials note that the maximum fiscal saving that could be achieved from full cancellation of the second tranche of pre-1990 forest allocation is $196.2m at a carbon price of $6.35, all in the 2012/13 financial year.
8. If the '2 for 1' were phased out as recommended by the panel, the 1.3% not suspended and a decision not made on deferral of agriculture, the fiscal costs of the package would fall to **$149m** over the forecast period (around $36m in the 2014/15 financial year) at a carbon price of $6.35. If Ministers additionally wished to provide for a temporary increase in starting industrial allocation rates to 80% and 95% respectively, to provide for a 'targeted' continuation of the '2 for 1' for the most emissions-intensive, trade-exposed firms, this would rise to approximately $170m across the forecast period (approximately $41m in the 2014/15 financial year) at a carbon price of $6.35.

Summary of Fiscal Costs of Package of Policy Options (at a $6.35 carbon price)

$ million	increase/(decrease) in operating balance				
	2012/13	2013/14	2014/15	2015/16	Total across forecast period to 2015/16
Introduction of Auctioning	-	-	-	-	-
~~Deferring the entry of agriculture into the ETS~~ indefinitely	-	-	~~(12.9)~~	~~(25.0)~~	~~(37.9)~~
Extending the 2:1 surrender obligation over for non-forestry sectors the entire forecast period	(31.7)	(89.4)	(89.4)	(87.6)	**(298.0)**
Suspending the phase-out of industrial allocation over the forecast period	(0.5)	(1.1)	(1.7)	(2.3)	**(5.5)**
Increasing allocation to coal users by amending the coal factor used in industrial allocation to cover costs associated with fugitive coal seam methane emissions	(1.5)	(1.5)	(1.5)	(1.5)	**(5.9)**
Including stationary energy use of liquid fossil fuels as an emission source eligible for industrial allocation	(4.3)	(4.3)	(4.3)	(4.3)	**(17.1)**
Adopting the Australian approach to industrial allocation for the activity "manufacture of carbon steel from cold ferrous feed"	(0.2)	(0.2)	(0.2)	(0.2)	**(0.9)**
A $10m per annum "low carbon fund"	(5)	(10)	(10)	(10)	**(35)**
Total (based on a $6.35 carbon price)	**(43.2)**	**(106.5)**	**(120)**	**(130.9)**	**(400.6)**
Total (based on a $10.47 carbon price)	**(71.2)**	**(175.6)**	**(197.9)**	**(215.8)**	**(660.5)**

Situation Analysis

9. Cabinet has recently agreed in principle, subject to consultation, to a number of changes to the New Zealand Emissions Trading Scheme (ETS), including:

    - the introduction of auctioning;
    - more gently phasing out the current '2 for 1' surrender obligation in three equal steps between 2013 and 2015 (as recommended by the ETS review panel);
    - providing for a power to defer the start of surrender obligations for agricultural greenhouse gases by up to 3 years, subject to a review in 2014; and
    - a review of the second tranche of free allocation to pre-1990 forest landowners.

10. A public consultation on these proposed changes closed on 11 May 2012. It is expected that Cabinet will make final decisions on these proposals by early July, and that a Climate Change Response Act amendment bill will be introduced for passage by the end of this year.

11. Officials are still analysing the submissions received during the consultation on the proposed changes to the ETS. Officials will to provide you with a summary of submissions and full advice on the ETS policy options arising by 1 June.

12. In the meantime, your office has sought information on the fiscal impacts of a package of alternative ETS policy options, including:

    a. the introduction of auctioning;

    b. extending the '2 for 1' surrender obligation until 2020 (rather than phasing it out);

    c. suspending the 1.3% per annum phase-out of industrial allocation until 2020;

    d. including costs associated with fugitive coal seam methane emissions in industrial allocation to coal users;

    e. including stationary energy use of liquid fossil fuels as an emission source eligible for industrial allocation;

    f. adopting the Australian approach to industrial allocation for the activity "manufacture of carbon steel from cold ferrous feed", classifying this activity as a highly emissions intensive activity eligible for 90% allocation. This was requested by the Pacific Steel Group (the only firm undertaking this activity in New Zealand), on the basis of a perceived competitiveness disadvantage compared to steelmakers in Australia (who receive a higher rather of allocation plus grant assistance from the Australian Steel Transformation Plan);

    g. a $10m 'low carbon fund'; and

    h. deferring the start of surrender obligations for agricultural greenhouse gases until 2020 (rather than providing a power to allow deferral following a 2014 review);

13. This briefing provides some initial policy advice on this package of options from Ministry for Environment officials. It also sets out some fiscal costs for alternative policy options for comparison.

14. As requested, the fiscal costs presented in this paper have been reviewed by the Treasury. These fiscal costs are estimates only. Officials have not yet examined fully the fiscal costs of including additional emission sources for the purpose of industrial allocation, and the interaction between the continuation of '2 for 1' for emissions-intensive, trade-exposed firms and the fiscal costs of industrial allocation policy options.

15. Your office has also requested background on the fiscal treatment of the ETS and, in particular, the methodology for valuing units in the ETS. As agreed with your office, Ministry for the Environment and Treasury officials will jointly prepare a separate briefing note on this issue, to be submitted to you later this week.

Advice

16. Initial policy advice and fiscal costs for the package of options presented by your office is set out below. This advice includes some references to the emerging themes in the public consultation that closed on 11 May, based on analysis of the submissions to date. However, officials note that you have not yet received a full analysis of the submissions received and issues raised by the consultation. We recommend that decisions are made after receiving this analysis.

Analytical Assumptions

17. The estimates of fiscal impacts in this briefing show the expected differences in the Government's operating balance between the status quo (the ETS as currently legislated) and the policy options examined in this briefing. These fiscal estimates do not include administrative costs, and are based on the Intergovernmental Panel on Climate Change 1995 Second Assessment Report (AR2) Global Warming Potentials.

18. To date, government has used the Primary Certified Emission Unit (pCER) price in the Crown Accounts to track the fiscal impact of the ETS. This is because the pCER price represents a relatively reliable international price point for a unit that New Zealand could use to meet its international obligations. The most recent reported pCER price was $10.47, as at 16 May 2012.

19. However, officials are aware that this is significantly higher than NZU or secondary CER prices reported domestically or internationally. Officials have therefore been exploring the potential for a reliable alternative price point that more accurately reflects the market price.

20. As requested by your office, fiscal estimates in this briefing are based on a carbon price of $6.35, the NZU spot price[1] reported by Point Carbon as at 10 May 2012. It is unclear whether the Point Carbon NZU price will provide for the most reliable unit price point in the Crown Accounts in future, but it provides estimates that are closer to the current market price for units. As the Crown accounts continue to use a pCER price (currently $10.47) as the official carbon price, estimates of the total cost of the package are also provided on this basis for comparison. Agencies will provide further separate advice on this accounting recognition.

Analysis - Transitional Measures: '2 for 1' and Industrial Allocation

21. Together with the carbon price, the '2 for 1' and industrial allocation will determine the level and nature of the economic impost and emissions reduction incentive created by the ETS over the next decade:

    - The '2 for 1' surrender obligation allows participants in the scheme to surrender 1 unit for every 2 tonnes of emissions, effectively reducing the obligation by 50% for all participants. Under current ETS settings, it is due to end in 2013.

    - Industrial allocation targets a higher level of assistance to the most emissions intensive, trade exposed activities of the economy, effectively reducing the emissions costs associated with this activities by 60% or 90% through a free allocation of units.

22. The ETS Review Panel (the Panel) recommended that, instead of ending the 2013, the '2 for 1' surrender obligation should be phased out more gently over 2 years, to provide the economy more time to adjust and to reduce the impacts of the scheme during the period of recovering, whilst not significantly reducing the medium term incentives to reduce emissions. They also indicated that officials should investigate whether additional emissions sources that were not eligible for allocation, such as use of liquid fossil fuels, should be made eligible.

[1] The NZU spot price is usually very close to the secondary CER price, which is reported by Point Carbon to be $6.40 as at 17 May 2012.

23. Cabinet supported the Panel's recommendation 'in principle' and used it as the basis for the consultation that closed on 11 May.

24. Initial analysis of the results of that consultation suggests that the majority of submissions support the Panel's recommendation. Some submitters opposed it on the basis that the '2 for 1' ought to end earlier; and some opposed it on the basis that the '2 for 1' ought to simply be extended. Those seeking a simple extension of the '2 for 1' were often emissions-intensive, trade-exposed companies who qualified for industrial allocation. Those seeking an extension of the '2 for 1' often also supported increases in industrial allocation levels, in one form or other.

25. In deciding whether to go beyond the panel's recommendations and provide for a simple extension of the '2 for 1'; or to provide for increases in industrial allocation, key considerations for Ministers include:

    a. What level of economic impost do you want the ETS to have in the short term?

    b. What fiscal cost are you prepared to bear to reduce this impost?

    c. Where is that level of impost of most concern: across the whole economy or in certain sectors and industries?

    d. How will decisions on transitional measures affect the ability of the economy to adjust smoothly to what could be greater obligations in terms of emissions reductions over time?

26. Further consideration of these issues is set out below.

Fiscal Costs

27. Together, the extension to the '2 for 1', changes to industrial allocation and creation of a new $10m 'low carbon fund' would raise fiscal costs of $362.7m over the forecast period at a carbon price of $6.35.

28. These fiscal costs are summarised below. Officials note that:

    - The fiscal cost of extending the '2 for 1' ($298m over the forecast period) is more than triple the cost of implementing the Panel's proposed '2 for 1' phase out ($90m over the forecast period).

    - Fiscal costs for the inclusion of emissions costs from Liquid Fossil Fuels for stationary energy and Fugitive Coal Seam Methane in industrial allocation are uncertain. It is unclear whether new activities would qualify for industrial allocation on the basis of the new emissions sources. If so, these costs could be higher. Further analysis is needed to determine how many potentially eligible activities use liquid fossil fuels in stationary energy applications.

    - We have assumed that the 'low carbon fund' would start in 2013 and continue throughout the forecast period.

Fiscal Costs of Policy Options for '2 for 1' and Industrial Allocation (at a $6.35 carbon price)

$ million	increase/(decrease) in operating balance				
	2012/13	**2013/14**	**2014/15**	**2015/16**	**Total across forecast period to 2015/16**
Extending the 2:1 surrender obligation over for non-forestry sectors the entire forecast period	(31.7)	(89.4)	(89.4)	(87.6)	**(298.0)**
Suspending the phase-out of industrial allocation over the forecast period	(0.5)	(1.1)	(1.7)	(2.3)	**(5.5)**
Increasing allocation to coal users by amending the coal factor used in industrial allocation to cover costs associated with fugitive coal seam methane emissions	(1.5)	(1.5)	(1.5)	(1.5)	**(5.9)**
Including stationary energy use of liquid fossil fuels as an emission source eligible for industrial allocation	(4.3)	(4.3)	(4.3)	(4.3)	**(17.1)**
Adopting the Australian approach to industrial allocation for the activity "manufacture of carbon steel from cold ferrous feed"	(0.2)	(0.2)	(0.2)	(0.2)	**(0.9)**
A $10m per annum 'low carbon fund'	(5)	(10)	(10)	(10)	**(35)**

Short Term Economic Considerations

29. A key short-term concern is the impact of the ETS on the international competitiveness of New Zealand businesses, whilst future international climate change obligations are still uncertain. However, for most sectors of the New Zealand economy, the impact of the carbon price in the short term is likely to be small as a proportion of overall costs. Moreover, ETS costs are likely to scale up and down with the level of ambition taken in other countries, as reflected in the international carbon price.

30. International carbon prices, currently around the $6-7 mark, are expected to remain low to at least 2015[2] (and, depending on developments in the international carbon market, potentially beyond). Extending the '2 for 1' surrender obligation would only slightly mitigate the impact of the ETS on prices, household expenditure and business costs. A comparison of the impact of the status quo ETS settings, the Panel's recommendation and simple extension of the '2 for 1' on household and business expenditure on electricity and fuels is shown below, based on an NZU price of $6.35.

[2] Pending action in Europe and elsewhere to address oversupply in the EU ETS, which appears unlikely in the short term.

Impact of the ETS on household and business expenditure on electricity and fuels based on a carbon price of $6.35

	Status Quo: 2:1 surrender obligation expires at the end of 2012	**Phasing out the 2:1 surrender obligation as recommended by the ETS Review Panel**	**Extending the 2:1 surrender obligation over the entire forecast period**
Impact on total business expenditure on electricity and fuels $ million per annum (% GDP)			
2012	$89m (<0.1% GDP)	$89m (<0.1% GDP)	$89m (<0.1% GDP)
2013	$178m (~0.1% GDP)	$119m (<0.1% GDP)	$89m (<0.1% GDP)
2014	$178m (~0.1% GDP)	$148m(<0.1% GDP)	$89m (<0.1% GDP)
2015	$178m (~0.1% GDP)	$178m (~0.1% GDP)	$89m (<0.1% GDP)
Impact on average household expenditure on electricity and fuels $ per annum (% gross income)			
2012	$34 p.a. (<0.1%)	$34 p.a. (<0.1%)	$34 p.a. (<0.1%)
2013	$68 p.a. (<0.1%)	$45 p.a. (<0.1%)	$34 p.a. (<0.1%)
2014	$68 p.a. (<0.1%)	$56 p.a. (<0.1%)	$34 p.a. (<0.1%)
2015	$68 p.a. (<0.1%)	$68 p.a. (<0.1%)	$34 p.a. (<0.1%)

31. Costs will be more significant for the companies undertaking the most emissions-intensive, trade-exposed activities in the economy, even at relatively low carbon prices. These are the industries for which emissions and energy costs are a much larger proportion of total revenue than average companies. It is these industries who are likely to suffer the most risk to their competitiveness and it is therefore at these industries that industrial allocation is targeted.

Long Term Economic Considerations

32. In addition to short-term competitiveness considerations, New Zealand faces some potentially difficult economic adjustment challenges arising from its rising long-term emissions profile.

33. Currently, growth in our gross emissions is offset by sequestration from post-89 forestry planting. This is why we have comfortably met our obligations under Kyoto Commitment Period 1 (CP1).

[Withheld under section s9(2)(j)6(a)]

Withheld under section

s9(2)(j) s6(a)

Withheld under section s9(2)(j)

However, expectations and pressures on New Zealand to reduce its emissions are likely to remain over the long term. Therefore, this rising emissions profile represents a long-term economic risk for New Zealand's competitiveness (on the basis that over time other countries and consumers will take and expect action).

35. An economically optimal long-term strategy for New Zealand is likely to be to provide for a smooth transition for its economy towards a state where it can meet future emissions reduction commitments and other expectations at a manageable cost. This does not mean imposing disproportionate costs on the economy that threaten our competitiveness in the short term. But such a strategy would imply that Government is sending clear signals that will encourage businesses to make lower emissions investments now that will place New Zealand in better stead for the future.

36. A continuation of the '2 for 1' surrender obligation to 2020 would arguably work against such signalling. Whilst, given current low carbon prices, it may have limited impacts on incentives for industries to reduce emissions now, it would reduce certainty about when the transition to full liabilities would be, muting signals to invest for the future. The Panel's recommendation, which clearly signalled a transition to a full obligation in 2015, was intended to mitigate short-term costs whilst providing clearer medium-term signals.

Other considerations beyond 2015

37. Withheld under section s9(2)(j) s6(a)

38.

39.

Withheld under section s6(a) s9(2)(j)

40.

41. Officials will be providing you with further advice on our proposed international carbon markets strategy later this week.

Initial Advice and Options

42. On balance, officials' initial advice is that Ministers do not extend the '2 for 1' surrender obligation. The fiscal costs of extending the '2 for 1' are significant and it would not appear to be the most efficient means, in terms of 'bang for fiscal buck', of reducing short term competitiveness risks arising from ETS costs.

43. If Ministers do wish to move beyond the Panel's recommendations and offer greater short-term protection against ETS costs, officials would recommend that they consider targeting this protection at the most emissions intensive, trade exposed firms that are likely to be most heavily impacted by increases in ETS costs.

44. Many of these firms have already qualified for significant levels industrial allocation. However, they may need further assistance to invest in new technologies or infrastructure that will help them to reduce their exposure to ETS costs over time. For example, coal users in the South Island regularly raise the availability constraints or capital costs that stop them investing in lower carbon energy sources. Similarly, SMEs may suffer from capital constraints. In other cases, relatively emissions-intensive firms may just fall below the threshold for eligibility for allocation, in which case targeted assistance may be warranted.

45. More analysis would be needed to consider what, if any, additional forms of direct support are likely to be cost effective and justifiable. Such analysis would need to take into account what market failures exist that would prevent firms making optimal long term investments. It would also need to take into account existing support measures; including the role of the Energy Efficiency and Conservation Authority (EECA). At this stage, we are not in a position to advise on whether establishing a new low carbon fund of $10 million per annum is an efficient or cost effective use of funds.

46. If Ministers wish to signal broader support to existing emissions-intensive, trade-exposed industries who qualify for allocation, a number of the options outlined in the package set out by your office can be implemented at a relatively low fiscal cost and have a stronger policy rationale (as they are targeted at the most exposed industries) than a simple extension of the '2 for 1'. They are also areas that the panel recommended that officials explore further, although it is unclear how material they will be for the firms concerned:

   a. *Adding additional emission sources eligible for industrial allocation: liquid fossil fuels and fugitive coal seam methane.* Including these emissions sources within allocation calculations can be justified by the simple fact that firms face the corresponding ETS costs. The effect would be to marginally increase allocation for some existing allocation recipients, though by an amount that is unlikely to be significantly material for most firms. These policy options would result in some new administrative complexities, as new data rules and activity definitions would need to be developed.

b. *Adopting the Australian approach to industrial allocation for the activity "manufacture of carbon steel from cold ferrous feed", so that Pacific Steel Group in New Zealand would qualify for the 90% level of allocation.* This would be consistent with the original purpose of including the 'Australia track' for allocation within the ETS legislation. However, again it is unclear how material this will be for Pacific Steel, as the evidence presented to date indicates that ETS costs are a very small factor in their competitiveness. Officials also note that such a move could be seen as inequitable by other activities that currently qualify for the 60% level.

47. However, officials would, based on initial consideration, recommend against suspending the 1.3% allocation phase out. As the rate of phase out is relatively low, this will result in small cost reductions for allocation recipients in the short term, but create more uncertainty for firms about the costs and liabilities they will face over the long term; thus reducing incentives for long-term investments.

48. If (following consideration of the consultation responses and associated analysis) Ministers still wished to pursue a more wholesale approach to mitigating ETS costs beyond the proposals recommended by the Panel, a further option would be a temporary increase in allocation levels in a way that would maintain the benefits of the 2:1 surrender obligation for industrial allocation recipients only. Effectively, this would mean raising the starting allocation rate for highly emissions intensive activities from 90% to 95%; and the starting allocation rate for moderately emissions intensive activities from 60% to 80%.

49. This would reduce costs at a similar scale to a blanket extension of the '2 for 1' for the most emissions-intensive industries for a defined period of time for a much lower fiscal cost. Assuming the allocation rate increase is temporary and assuming that allocation continues to phase out at 1.3%, this would dilute long term investment signals much less significantly than a blanket extension to the '2 for 1' and would more efficiently target the most impacted sectors of the economy.

50. Officials can provide further analysis on these or other options if required.

Analysis - Deferral of Agriculture

51. The ETS Review Panel recommended that agricultural emissions (nitrous oxide emissions from fertiliser and methane emissions from livestock) should incur ETS surrender obligations from 2015 as currently scheduled. However, they recommended that agriculture benefited from a transition phase, including an equivalent '2 for 1' surrender obligation for the first two years of their obligation, to be gradually phased out by 2019.

52. The Government (consistent with previous policy statements that a review of agriculture's inclusion will take place in 2014) consulted on the inclusion in legislation of a power to defer agriculture's obligations by up to 3 years, subject to a review of two tests:

- whether other countries have made progress on measures to reduce emissions in general; and
- whether practical technologies exist to reduce emissions.

53. Initial analysis of responses to the consultation show the majority of submissions (around 59%) opposing the introduction of a power to defer surrender obligations for agriculture, on the basis that agriculture should enter the scheme as (or before) currently legislated. Of those who supported the proposed power (around 38%), many supported a deferral of agriculture now and for a longer period than 3 years.

54. Those opposed included a mix of respondents from the forestry and industrial sectors, as well as NGOs. A key issue raised by those opposed was the potential equity and competiveness distortions involved in excluding one set of emissions when others were covered. The potentially different treatments of competing land uses (deforestation faces liabilities whilst agricultural emissions do not) were specifically raised.

Fiscal Costs

55. If the entry date of agriculture into the ETS were deferred, there would be a fiscal cost during the forecast period arising from a reduction in units surrendered. The estimated fiscal cost is around $37.9m across 2014/15 and 15/16 at a carbon price of $6.35.

$ million	**2012/13**	**2013/14**	**2014/15**	**2015/16**	**Total across forecast period to 2015/16**
Deferring the entry of agriculture into the ETS	-	-	(12.9)	(25.0)	**(37.9)**

Note: the annual fiscal cost will continue to grow beyond the forecast period

Initial Advice

56. Officials note that the conditions raised by Ministers for the inclusion of agricultural emissions within the ETS raise a number of complex questions that have not yet been examined in detail.

57. In terms of progress by other countries, some progress has been made by trade partners on measures to reduce emissions in general over the last two years - for example, new carbon pricing schemes in Australia, Korea and California; and progress towards the implementation of emissions trading at regional level in China. In addition, some progress was made towards a truly comprehensive global climate change agreement at Durban. But it is difficult to predict how much further progress (or lack of progress) will occur over the next two years.

58. In terms of practical abatement options, availability appears to vary across both emissions sources and geographical regions; meaning that an assessment is not straightforward. For example:

   - As a whole, the sector has shown an ability to consistently improve its emissions intensity, for both methane and nitrous oxides, with emissions per unit of product declining over time. Were this trend to be maintained and reflected in ETS obligations, the sector may be able to reduce its net ETS liabilities over time; given the intensity-basis and slow phase-out of agricultural allocations.

   - Options exist, in the form of nitrification inhibitors (DCDs), to reduce nitrous oxide emissions. However, the effectiveness of this option varies significantly by geographical region.

   - There is currently no effective option to reduce absolute emissions of methane from livestock. Research may yield such an option in future, but timescales are unclear.

59. Making a decision now to defer agricultural surrender obligations until 2020 would be a substantial departure from the proposal consulted on by government. It is likely to be contentious and will raise equity concerns from other sectors.

60. Work is proceeding that may be relevant to a final decision by Ministers: the Agriculture ETS Committee will report to Ministers at the end of this year; research is ongoing on options to reduce agricultural emissions, including through Global Research Alliance. Internationally, New Zealand has made progress on an agriculture work programme under the UNFCCC and a decision now to defer agriculture could potentially affect this progress and the effectiveness of New Zealand's negotiating strategy.

61. On balance, officials' initial advice is not to make a decision on agriculture's deferral at this stage; but to maintain the review in 2014. This will enable the conditions that Ministers have set out, as well as other relevant considerations, to be properly considered and analysed.

Analysis - Auctioning

62. Advice on the policy rationale for auctioning has been set out in previous briefings and Cabinet papers.

63. Introducing auctioning after 2012 will not provide additional net revenue over and above the existing fiscal position, but will convert a proportion of the revenue the Government receives as a unit asset (through surrenders) into cash (through the auction). There will also be a timing impact on the recognition of revenues and expenses, depending on the design of auctioning.

64. More explanation of the current fiscal accounting treatment of the ETS, and how auctioning relates to it, will be provided in the further briefing note to be jointly prepared by the Ministry for the Environment and Treasury.

Overview – The Cost of the 'package' as whole

65. If all of the above options were implemented within the ETS, the fiscal cost would be $400.6m (around $120m in 2014/15) across the forecast period at a carbon price of $6.35. The maximum fiscal saving that could be achieved from full cancellation of the second tranche of pre-1990 forest allocation is $196.2m, all in the 2012/13 financial year.

Summary of Fiscal Costs of Package of Policy Options (at a $6.35 carbon price)

$ million	**increase/(decrease) in operating balance**				
	2012/13	**2013/14**	**2014/15**	**2015/16**	**Total across forecast period to 2015/16**
Introduction of Auctioning	-	-	-	-	-
Deferring the entry of agriculture into the ETS	-	-	(12.9)	(25.0)	**(37.9)**
Extending the 2:1 surrender obligation over for non-forestry sectors the entire forecast period	(31.7)	(89.4)	(89.4)	(87.6)	**(298.0)**
Suspending the phase-out of industrial allocation over the forecast period	(0.5)	(1.1)	(1.7)	(2.3)	**(5.5)**
Increasing allocation to coal users by amending the coal factor used in industrial allocation to cover costs associated with fugitive coal seam methane emissions	(1.5)	(1.5)	(1.5)	(1.5)	**(5.9)**
Including stationary energy use of liquid fossil fuels as an emission source eligible for industrial allocation	(4.3)	(4.3)	(4.3)	(4.3)	**(17.1)**

Adopting the Australian approach to industrial allocation for the activity "manufacture of carbon steel from cold ferrous feed"	(0.2)	(0.2)	(0.2)	(0.2)	**(0.9)**
A $10m per annum 'low carbon fund'	(5)	(10)	(10)	(10)	**(35)**
Total (based on a $6.35 carbon price)	**(43.2)**	**(106.5)**	**(120)**	**(130.9)**	**(400.6)**
Total (based on a $10.47 carbon price)	**(71.2)**	**(175.6)**	**(197.9)**	**(215.8)**	**(660.5)**

Fiscal Impact of Alternative Options

66. As noted above, officials' initial advice, pending full analysis of the submissions, would be:

- Not to extend the '2 for 1' to 2020.
- To consider adopting the panel's recommended phase out between 2013 and 2015.
- Not to suspend the 1.3% phase out of industrial allocation.
- To consider industry requests to add liquid fossil fuels and fugitive coal seam methane to the list of eligible emissions source for industrial allocation.
- To consider adopting the Australian approach to industrial allocation for the activity "manufacture of carbon steel from cold ferrous feed".
- To explore mechanisms to provide further support to more emissions-intensive firms (including those who do not qualify for allocation), to assist them to make low carbon investments which will reduce their exposure to ETS costs over time. This may or may not include a $10m low carbon fund.
- Not to make a decision to defer agriculture at this stage.

67. If the '2 for 1' were phased out as recommended by the panel, the 1.3% not suspended and a decision not made on deferral of agriculture, the fiscal costs of the package would fall to $149m over the forecast period (around $36m in the 2014/15 financial year) at a carbon price of $6.35.

68. If Ministers additionally wished to provide for a temporary increase in starting industrial allocation rates to 80% and 95% respectively, to provide for a 'targeted' continuation of the '2 for 1' for the most emissions-intensive, trade-exposed firms, this would rise to approximately $170m across the forecast period (approximately $41m in the 2014/15 financial year) at a carbon price of $6.35. The estimates of the fiscal costs of this package are ballpark only, as officials have not yet examined fully the interaction between the continuation of '2 for 1' for emissions-intensive, trade-exposed firms and the fiscal costs of industrial allocation policy options.

Summary of Fiscal Costs of Alternative Policy Options (at a $6.35 carbon price)

	increase/(decrease) in operating balance				
$ million	**2012/13**	**2013/14**	**2014/15**	**2015/16**	**Total across forecast period to 2015/16**
Package based on panel's 2 for 1 phase out, not decision on agriculture deferral or suspension of 1.3% phase out	(31.9)	(65.2)	(36)	(16)	**(149)**

The above package plus increase in starting industrial allocation rates to 80% and 95%	~(37)	~(71)	~(41)	~(21)	**~(170)**

Risks and Mitigations

69. This briefing sets out initial advice only, prepared in a relatively short time horizon. It may not cover all the issues relevant to Ministers in making a decision, such as administrative costs and complexity.

70. Officials have not yet provided you with full advice on the results of the consultation on ETS amendments which closed on 11 May. Most of the options officials have been asked to assess in this briefing were not included in that consultation, although many have subsequently been raised by some stakeholders.

71. [Withheld under section 9(2)(g)(i)] officials recommend that Ministers make decision on ETS amendments after receiving fuller advice on the consultation outcome. This fuller advice will include analysis of the submissions, and assessments of policy options arising, including those mentioned in this briefing.

Consultation

72. Officials from the Treasury and the Ministry for Primary Industries were consulted on the contents of this briefing. The fiscal costs in this briefing were agreed with Treasury officials.

Next steps

73. To facilitate Cabinet's decision-making process, officials recommend that you forward this briefing to the Prime Minister, the Minister of Finance, the Minister for Economic Development and the Minister for Primary Industries.

74. Further briefings enclosing a summary of submissions, a fuller analysis of issues raised in consultation and an outline draft Cabinet paper will be sent to you and Minister Groser later this week. Directions from you and Minister Groser on which policy options you wish to include in the Cabinet paper seeking final policy decisions will be needed next week.

Recommended Action

We recommend that you:

a) **Note** that this briefing contains initial advice only on a package of policy options put forward by your office for urgent analysis:

   i. the introduction of auctioning;

   ii. extending the '2 for 1' surrender obligation until 2020;

   iii. suspending the 1.3% per annum phase-out of industrial allocation until 2020;

   iv. ~~including costs associated with fugitive coal seam methane emissions in industrial allocation to coal users;~~

   v. including stationary energy use of liquid fossil fuels as an emission source eligible for industrial allocation;

   vi. adopting the Australian approach to industrial allocation for the activity "manufacture of carbon steel from cold ferrous feed", classifying this activity as a highly emissions intensive activity eligible for 90% allocation - as requested by the Pacific Steel Group;

   vii. a $10m 'low carbon fund'; and

   viii. deferring surrender obligations for agricultural greenhouse gases until 2020;

b) **Note** that officials recommend that Ministers make final decisions on these policy options after they receive a fuller analysis of the issues raised in the consultation which closed 11 May.

c) **Note** the fiscal costs of these policy options would be **$400.6m** (around $120m in 2014/15) across the forecast period at a carbon price of $6.35.

d) **Note** that officials' initial advice is:

   i. Not to extend the '2 for 1' to 2020, as this is a fiscally expensive but inefficient way of reducing the short term competitiveness impacts of the ETS, which may dilute long term signals to invest in lower carbon technologies and complicate efforts to build international carbon markets after 2015.

   ii. To consider, if short term competitiveness issues are a concern, adopting the panel's recommended '2 for 1' phase out between 2013 and 2015 and / or a temporary increase in starting allocation rates that will offer industrial allocation recipients the benefits of the '2 for 1', more effectively targeting assistance at a much lower fiscal cost.

   iii. Not to suspend the 1.3% phase out of industrial allocation, as this will reduce costs for allocation recipients very marginally in the short term, whilst significantly diluting long term signals.

   iv. To consider industry requests to add liquid fossil fuels and fugitive coal seam methane to the list of eligible emissions source for industrial allocation.

   v. To consider adopting the Australian approach to industrial allocation for the activity "manufacture of carbon steel from cold ferrous feed".

   vi. To explore mechanisms to provide further support to more emissions intensive firms (including those who do not qualify for allocation), to assist them to make low carbon investments which will reduce their exposure to ETS costs over time. This may or may not include a $10m low carbon fund.

vii. Not to make a decision to defer surrender obligations for agriculture at this stage, to allow for a fuller consideration and analysis of the two conditions Ministers have placed on the imposition of these conditions.

e) **Forward** this briefing to the Prime Minister, the Minister of Finance, the Minister for Economic Development, and the Minister for Primary Industries.

Stuart Calman **Date**
Director, Climate and Risk

Hon Simon Bridges **Date**
Acting Minister for Climate Change Issues