



Ministry for the
Environment
Manatū Mō Te Taiao

Climate Change: approach to determining New Zealand's medium-term target

Date:	14 May 2009	MfE Priority:	Non-urgent
Security Level:		Number of Attachments:	None
		MfE Ref No:	09-B-01292

Action Sought

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Minister for Climate Change Issues Hon Dr Nick Smith	<p>Agree that officials prepare a Cabinet paper with options for an appropriate medium-term (2020) reduction target(s) for New Zealand.</p> <p>Agree that at the Bonn negotiations from 1-12 June, New Zealand indicate that it should be in a position to announce its possible target(s) and the associated conditionality at the 10-14 August negotiations.</p> <p>Forward this to your colleagues with portfolios relevant to the climate change negotiations.</p>	None
Associate Minister for Climate Change Issues (International Negotiations) Hon Tim Groser	None.	

Ministry for the Environment Contacts

Name	Position	Telephone (cell)	Telephone (work)	1st Contact
Amelie Goldberg Daniel Twaddle	Advisers, Climate Change Policy		439 7602 439 7507	
Matthew Everett	Manager, Climate Change Policy	[Withheld]	439 7415	✓
Prue Densem	General Manager, Central Government Policy Group	[Withheld]	439 7667	

Treasury Contacts

Name	Position	Telephone (cell)	Telephone (work)	1st Contact
Ben Gleisner	Analyst, Climate Change and Energy Policy		917 7032	

Executive Summary

There is an expectation that New Zealand should announce a medium-term (2020) emissions reduction target in the coming months, and we understand that you intend to do so in August. Officials are analysing issues that need to be considered in developing the target and are working to provide you with a paper for Cabinet in late July summarising work that has been done and providing a range of possible targets for an announcement.

The intended approach to determining what might be an appropriate target for New Zealand would be based on the premise that developed countries should face a similar relative economic cost of meeting their target. This approach aims to ensure New Zealand has a fair target relative to other countries, and is reflective of our unique national circumstances.

Australia's recent announcement provides an important reference point. New Zealand's target would also most likely be best expressed as a range of possible targets with conditionalities around developing country/major emitter actions and satisfactory rules of high significance for New Zealand.

There is considerable stakeholder interest in what New Zealand's medium-term target should be and officials are preparing advice on options for consultation leading up to and beyond the Copenhagen negotiations. Some early direction on consultation around an August announcement of targets would be helpful.

Recommended Action

We recommend that you:

- (a) **Note** that officials are developing an approach to determining a medium-term (2020) target for New Zealand under a range of global participation and rule change scenarios.
- (b) **Agree** that officials prepare a paper in July presenting Cabinet with options for an appropriate medium-term reduction target for New Zealand. **Yes / No**
- (c) **Agree** that at the Bonn negotiations from 1-12 June, New Zealand indicate that it should be in a position to announce its possible target(s) and the associated conditionality at the 10-14 August negotiations. **Yes / No**
- (d) **Note** that there is considerable stakeholder interest in what New Zealand's medium-term target should be and officials are preparing advice on options for consultation leading up to and beyond the Copenhagen negotiations.
- (e) **Indicate** your expectations over consultation surrounding a possible August announcement of targets **Yes / No**

APPROVED FOR RELEASE

- (f) **Refer** this note to the group of Ministers with portfolios relevant to the climate change negotiations, as follows: Associate Minister for Climate Change Issues (International Negotiations), Minister of Finance, Minister of Energy and Resources, Minister of Agriculture and Minister of Forestry, Minister of Transport and Minister of Maori Affairs. **Yes / No**

Prue Densem **Date**
General Manager, Central Government Policy Group

Referred to Ministry Communications Staff: No

Hon Dr Nick Smith **Date**
Minister for Climate Change Issues

Hon Tim Groser **Date**
Associate Minister for Climate Change Issues (International Negotiations)

Purpose of Report

1. This report is to inform you that we intend to provide you with a paper to present to Cabinet in July outlining options for an announcement of possible medium-term emissions reduction targets in August.

Background

2. At the UNFCCC Conference of Parties in Copenhagen in December this year **[Withheld]**.
3. To date, a number of Annex I Parties, including the EU and Australia, have announced medium-term emission reduction targets for the year 2020¹. There is a strong expectation that remaining Annex I Parties will announce medium-term targets at the next Bonn negotiations from 1-12 June. **[Withheld]**.
4. Australia has announced three targets for the year 2020, each dependent on different levels of global ambition:
 - a. A minimum unconditional 5 per cent reduction on 2000 levels, irrespective of the actions of other nations
 - b. A reduction of up to 15 per cent on 2000 levels, in the context of an agreement where major developing economies commit to substantially restrain emissions and advanced economies take on commitments comparable to Australia's
 - c. A reduction of 25 per cent on 2000 levels if there is a global agreement sufficient to stabilise atmospheric greenhouse gases at 450 parts per million (ppm) carbon dioxide-equivalent or lower.
5. New Zealand is not in a position to announce a target in June, but you have indicated that an announcement could be made at the August negotiating session (10-14 August). This intention could be conveyed to the Bonn meeting.
6. Officials intend to provide you with a Cabinet paper in July with options for announcing New Zealand's appropriate medium-term reduction target(s) for the August meeting of the UNFCCC negotiations.

Approaches to setting a target

7. Setting a medium-term emission reduction target requires consideration of three issues:
 - a. The approach to determining how effort to reduce global emissions is shared between Parties (i.e. how to determine what is New Zealand's fair share);
 - b. The rules specifying how emissions are accounted for and measured; and
 - c. How the target is to be expressed.

Approach to sharing global effort to reduce emissions

¹ It does not follow that the second commitment period will end in 2020: targets for the commitment period, if different, would be extrapolated back from the 2020 'pledge'.

8. Various approaches have been proposed for sharing the global effort between countries or assessing whether proposed targets represent a 'fair' level of effort. Some of the approaches use one or several factors/indicators, including:
- GDP per capita
 - Greenhouse gas emissions per capita
 - Historic emissions
 - Sectoral mitigation potential
 - Mitigation costs as a percentage of GDP.
9. **[Withheld]** it will be important to justify the approach being used to determine New Zealand's target.
10. Officials have explored the implications of applying different approaches and have concluded that mitigation cost as a percentage of GDP is both internationally credible and ensures New Zealand's unique national circumstances are taken into account (such as relatively high population growth since 1990 and relatively limited mitigation potential). The use of this approach is based on the premise that fair/comparable targets should result in an approximately equal percentage impact on GDP.
11. Initial analysis using internationally respected estimates of relative mitigation costs shows that the above approach would result in a wide range of targets between Annex I Parties, and that New Zealand's percentage reductions relative to 1990 would not be as large as those of most Parties. Basing a New Zealand target on relative mitigation costs between countries means that different assumptions about the level of global ambition (and hence mitigation costs) will result in different targets for New Zealand.
12. In the July Cabinet paper, officials propose to present you with medium-term target options for New Zealand that cover a range of different levels of global ambition² and compare possible New Zealand targets with those of Australia and other Annex I parties.

Changes to rules for accounting and measurement

13. There are a number of possible accounting and measurement rules, notably in the land use sector, currently being negotiated for a post-2012 agreement. Because of New Zealand's large forestry and agriculture sectors, these changes could potentially have a significant impact on the quantity of reductions required to meet a given target and the associated costs.
14. Officials are analysing the potential effects of different rule changes currently being negotiated, and in the July Cabinet paper propose to present you with medium-term target options for New Zealand that cover a range of rule change combinations.

Options for expressing a medium-term target

15. There are a number of ways in which countries have expressed their targets to date. These include:
- a. Using different base years;

² This is the approach used by Australia in setting its range of possible 2020 targets.

- b. Expressing as a per capita reduction rather than a total national reduction; and
- c. Expressing at a point in time rather than for a period.

16. The way in which potential targets are expressed can have important implications for perceptions of its ambition. Consideration should also be given to whether New Zealand should present a single figure, a range of several figures or a range within which our eventual target would lie. Officials are exploring different approaches to expressing a New Zealand target and intend to present these as options in the July Cabinet paper.

Scenarios for a New Zealand target

17. The above discussion illustrates the range of factors that have implications for how a medium-term target for New Zealand is determined and expressed. Various scenarios for a possible target based on different levels of global ambition and rule combinations will be canvassed in the July Cabinet paper. Options for expressing targets for these scenarios are shown in the table below.

	Rule Option 1	Rule Option 2	Rule Option 3
High global ambition	Target expressed relative to different base years, commitment periods, and per capita reductions	Target expressed relative to different base years, commitment periods, and per capita reductions	Target expressed relative to different base years, commitment periods, and per capita reductions
Low global ambition	Target expressed relative to different base years, commitment periods, and per capita reductions	Target expressed relative to different base years, commitment periods, and per capita reductions	Target expressed relative to different base years, commitment periods, and per capita reductions

Implications of a 2020 target

18. Any 2020 target that results in an emissions reduction obligation for New Zealand will need to be met by either domestic reductions or through purchasing credits offshore. How our obligations are met will depend both upon the level of the target and domestic policy settings.

Emissions projections to 2050

19. Figure 1 below displays a future emissions path through to 2050 assuming 'business as usual' (BAU) policy settings³. It can be seen that forestry sequestration is expected to keep net emissions at about 1990 levels until at least 2015, but that emissions grow rapidly thereafter, particularly from around 2020. This increase in part reflects expected underlying growth in gross emissions, and partly the expected harvesting of forests planted in the early to mid 1990s.

³ These are unofficial projections (assuming current rules) and are included to give a sense of the expected direction of BAU emissions. Formal projections are currently being updated for the results of the Net Position Report 2009, and for data on post-1989 forest area from the Land-Use Carbon Analysis System due in July. These will be used in our analysis for the July Cabinet paper.



Figure 1 Projected gross and net emissions to 2050

Domestic policy for meeting a 2020 target

20. Estimates and modelling of the impacts of an emissions price of around \$25 result in considerable domestic emissions reductions below projected 2020 BAU, but this quantity would be insufficient to reduce emissions to 1990 levels. Without further domestic policies a target of this order would imply significant purchasing of credits offshore. This is particularly true for periods beyond 2020, when net emissions are expected to grow significantly.

Consultation

21. There is considerable interest internationally and from domestic stakeholders on what New Zealand's medium-term emissions reduction target should be. Officials are considering options for consultation on a future climate change agreement leading up to and beyond the Copenhagen negotiations. You will be briefed on these in due course.

22. It would be helpful to get some early direction on managing consultation around a possible August announcement on targets.

Next steps

23. Officials intend to brief you by early July outlining preliminary recommendations that you may wish to discuss with other Ministers with portfolios relevant to the climate change negotiations. Our proposed Cabinet paper will take into account any feedback you may have.