Office of the Convenor, Ministerial Group on Climate Change

The Chair
CABINET POLICY COMMITTEE

CLIMATE CHANGE I: KYOTO PROTOCOL PREFERRED POLICY PACKAGE: OVERVIEW

PURPOSE

1 This paper is the first in a series of five papers on the preferred policy package for New Zealand to meet its obligations under the Kyoto Protocol. This paper provides an overview of the preferred policy package. The key policy elements are discussed in greater detail in the accompanying Cabinet papers, where Cabinet endorsement is sought for:

- the preferred policy package;
- consultation with stakeholders and the public to occur in May through to June 2002 on the preferred policy package; and
- officials to report back to Cabinet by July 2002 on the final policy package.

EXECUTIVE SUMMARY

2 Under the Kyoto Protocol, New Zealand is obligated to reduce greenhouse gas emissions to 1990 levels between 2008-2012 (the "first commitment period") or the Government, in the first instance, must take responsibility for the excess. Taking responsibility means obtaining emission units[1] from the international market, carbon sequestered from forests, international project-based mechanisms, or combinations of these.

3 The Government can choose what proportion of New Zealand's obligations will be achieved through domestic emission reductions and the proportion for which it will obtain emissions units. The appropriate mix depends on the international price of emission units, the desired transition path for emissions abatement, and the costs and benefits associated with that path.

4 Existing policies such as the National Energy Efficiency and Conservation Strategy (NEECS) and the New Zealand Waste Strategy, when fully funded and implemented, are expected to reduce excess emissions during the first commitment period by around one third. These policies will make a substantial contribution to meeting the Government's goal of 'making significant reductions on business as usual and being set towards a permanent downward emissions path by 2012'. However, existing policies will not capture all opportunities for cost-effective abatement and will need to be augmented over time by other measures including price measures.

[1] Emission units (also called "assigned amount") are transferable units that may be retired against emissions. One emission unit represents one tonne of carbon dioxide equivalent.

Consultation

5 There were several themes from the consultation held in October – December 2001 on possible policy measures to enable New Zealand to meets its obligations. In general there was a lack of public understanding of climate change, which has led to concerns about proposed policy options. However, there was recognition that climate change needs to be addressed, that New Zealand should adopt a range of market and non-market strategies, and that a price mechanism would be needed to help change behaviours (although there were differences on when a price measure should be introduced). On the issue of carbon sinks, forestry participants were very concerned about the potential costs of compliance. There was a feeling that participation in any system to receive sink credits should be voluntary.

6 Mäori were concerned about the policy options and some thought that climate change policies would have adverse economic outcomes for the primary production sector, which forms the basis of much of the Mäori commercial asset base. Some also considered that the creation of any emission rights and sink credits would have Treaty of Waitangi implications.

Preferred Policy Package

7 The package set out below contains the key elements of the Government's policy response to climate change in order to give Parliament, industry and other stakeholders a clear outline of future policy directions. The development of the policy package was guided by the Government's principles of ensuring permanent reductions over the long term, needing policy to be responsive to the changing international context, to be consistent with a growing and sustainable economy, and to not disadvantage the vulnerable in our society. The development of the package was also guided by the key messages from consultation.

8 The preferred package comprises several key elements. In the first instance, the primary focus will be on policies for changing behaviours. The most important early action will come from existing policies that have or will have an impact on excess emissions in the pre-commitment period and beyond (referred to as the policy "foundations" - see Figure 1 below). New policies for the pre-commitment period include projects[2], which will create incentives for abatement, and research. The addition of Negotiated Greenhouse Agreements (NGAs[3]) will also provide a framework for firms to achieve reductions in emissions in return for a partial or full exemption from any price measure that might apply in the first commitment period.

9 A price on emissions is not recommended for introduction before 2007. New policies for the first commitment period include the introduction of an emissions charge, approximating the international price, with a price cap of $25 per tonne of CO_2. The Government will retain the option of private sector emissions trading if the international market is functional and the international price of carbon is reliably

[2] Projects are measures aimed at delivering defined reductions in greenhouse gas emissions, e.g. from enhanced uptake of technologies and practices, or enhancement of sinks in return for provision by the Government of an incentive, generally either via funds or emissions units. Such projects would not be currently economic, or market barriers exist to prevent their uptake.

[3] NGAs are a contractual means by which a firm or sector receives protection from some or all of a a future price instrument such as a levy or tax in return for agreeing to undertake mitigation measures (i.e. for an agreed emissions path) consistent with its individual circumstances, with the overall objective of achieving world best practice on emissions per unit of production.

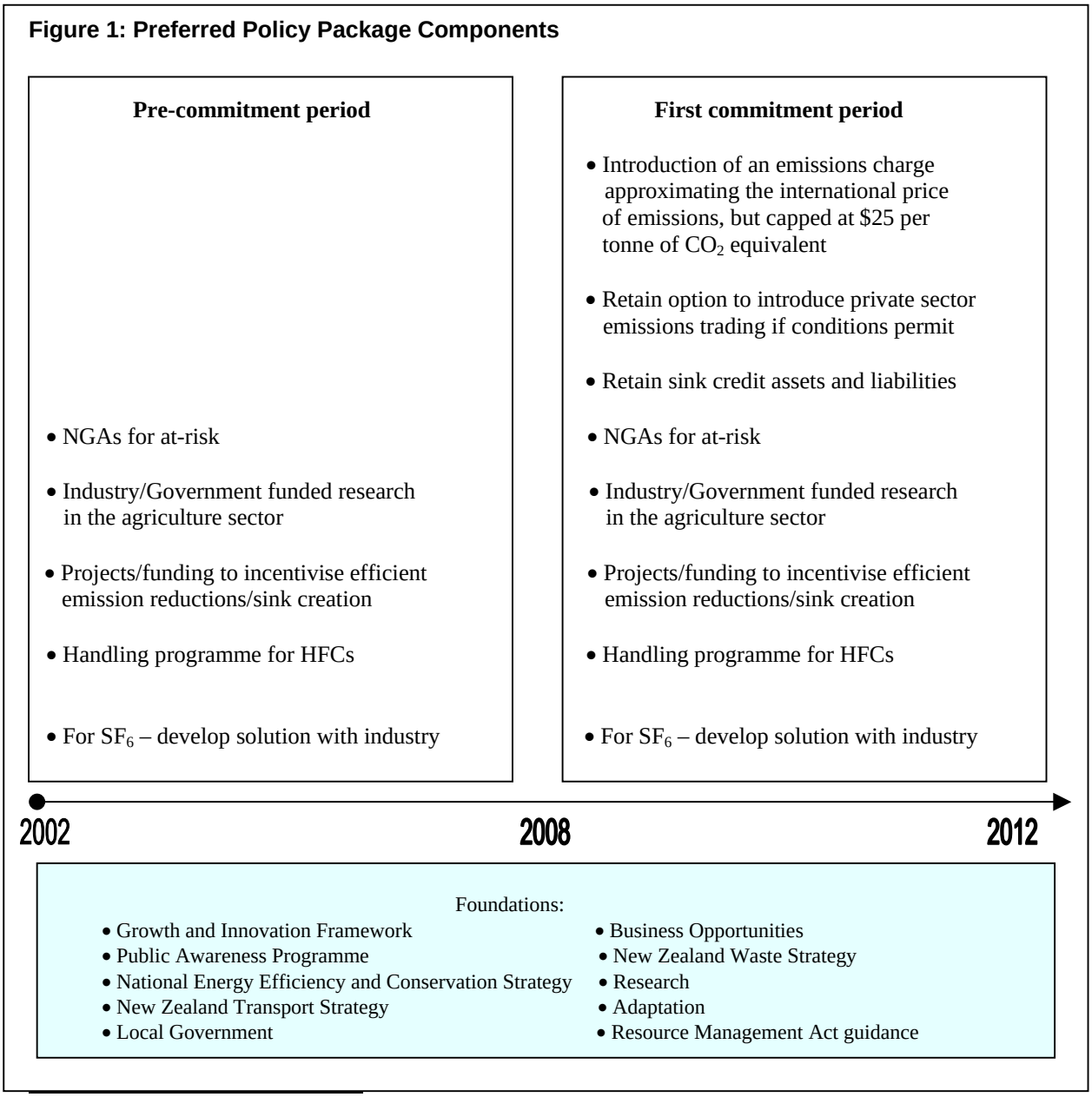
below the price cap. New policies also include retaining sink credits[4], and the continuation of Projects, NGAs and research.

10 The preferred policy package is summarised in Figure 1 below. The major influence on the recommendation in favour of this preferred policy package is the recognition of uncertainty relating to:

- international events
- whether the Protocol will enter into force
- the response of the major players and New Zealand's trading partners
- a future price of carbon

11 Figure 1 illustrates the components, and timing, of the preferred policy package.

Figure 1: Preferred Policy Package Components



[4] Sink credits – A unit of assigned amount (equivalent to an emission unit) representing one tonne of carbon dioxide equivalent absorbed after 1 January 2008.

Next Steps

12 Consultation on the preferred policy package will be undertaken in May and June 2002. Officials will continue to work on the policy options as feedback is received from the consultation process. Concurrent with the process the Select Committee consideration of the National Interest Analysis will continue, as will the introduction of the Part 1 legislation in May. A final decision on the package, as well as on ratification, can then be taken by late July 2002.

BACKGROUND

13 On 11 February 2002, Cabinet agreed in principle to ratify the Kyoto Protocol prior to the World Summit on Sustainable Development (August 2002). This decision was subject to:

- select committee consideration of the National Interest Analysis;
- passing of the necessary legislation for ratification (the "Act I" legislation);
- final decisions on the preferred policy approach; and
- the Government's policy response being predicated on the Protocol coming into force [CAB Min (02) 4/3].

14 Cabinet also agreed that the following goal and principles should guide the development of the preferred policy package (see Annex 1):

Goal

New Zealand should have made significant greenhouse gas reductions on business as usual and be set toward a permanent downward path for total gross emissions by 2012.

Principles

- *Policies must result in permanent reductions over the long term*. Because the Kyoto Protocol is predicated on stabilising concentrations of greenhouse gases in the atmosphere, future commitment periods will likely involve deeper targets. Prudent economic risk management suggests that although we are in an advantageous position in the first commitment period because of sink credits, we must start creating incentives for reducing emissions below 1990 levels in subsequent commitment periods.

- *Policies need to be responsive to the changing international context*. This means policies must recognise uncertainties about the future, including changes in our emissions profile, in technology, and in the international environment.

- *Policies need to be consistent with a growing and sustainable economy*. This means that the importance of the competitiveness of our industries (including new entrants) must be reflected in policies. Achieving this means not imposing the full cost of emissions on New Zealand industries that are considered "at-risk" and ensuring that economic opportunities in climate change are promoted.

- *Policies will not disadvantage the vulnerable in our society*. Policies should ensure that lower socio-economic groups are not disadvantaged as a result of Kyoto commitments.

NEW ZEALAND'S KYOTO PROTOCOL OBLIGATIONS

15 Under the Kyoto Protocol, New Zealand is obligated to reduce greenhouse gas emissions to 1990 levels between 2008-2012 or the Government, in the first instance, must take responsibility for the excess by:

- purchasing additional emission units on the international market; or
- using other options such as sink credits accruing from carbon sequestered from forests; or
- using other emissions credits earned overseas through the project-based mechanisms of the Protocol; or
- combinations of the above.

16 The Government can choose what proportion of New Zealand's obligation will be achieved through domestic emissions reductions and what proportion will be achieved through the mechanisms discussed above. The appropriate mix depends on:

- the international price of emission units, which will affect incentives for greenhouse gas abatement and the value of sink credits;
- the desired transition towards a permanent downward path for emissions; and
- the costs/benefits associated with that path.

Emissions task

17 New Zealand will receive an assigned amount equal to five times 1990 levels or about 365 million tonnes (Mt) of CO_2 equivalent[5] for the first commitment period. Current projections (under business as usual) indicate that New Zealand's emissions will exceed 1990 levels by around 75 Mt during the first commitment period. Although recent consultation has focused on new market based policy measures, existing policies and strategies are expected to make a significant contribution to reducing excess emissions. The estimated impact of existing policy on emissions is illustrated in Table 1.

[5] Unless stated otherwise, all figures are given in CO_2 equivalent. This standardises the differing global warming effect of the six greenhouse gases covered by the Kyoto Protocol.

Table 1: Estimated impact of existing policy on greenhouse gas emissions

	Estimated Mt CO_2 equivalent for 2008-2012
Projected emissions, business as usual	440
Assigned amount for 1990 emission levels	365
Net amount excess emissions to be covered under business as usual in the first commitment period	*–75*
Existing policies	
- National Energy Efficiency and Conservation Strategy[6]	20
- The New Zealand Waste Strategy	5
- Research	not quantified
Estimated amount to be covered after existing policies	*-50*
Sinks Credits Generated	105
Estimated net positive position	*55*

18 In the first commitment period at least, New Zealand is a net seller of emission units and therefore an economic beneficiary from the Protocol. To the extent that we cost-effectively reduce excess emissions, we will increase the economic benefit of the Protocol to New Zealand.

19 Assuming all surplus sink credits are sold, the value to the New Zealand economy at a price of $10/tonne CO_2 would be in the order of $0.5 billion over the five years. This assumes that existing policies are successfully implemented (and excludes implementation costs). However, if New Zealand reduced its emissions to 1990 levels, the value to New Zealand would be around $1 billion over the five years. At $25/tonne of CO_2 the values rise to about $1.25 billion and $2.5 billion, respectively.

20 It is important to note the uncertainties that surround these numbers, including:

- New Zealand's assigned amount will not be confirmed until at least 2006 and current estimates of our 1990 emissions may change based on a current review of the methods used for estimating agricultural emissions.

- Significant problems are involved in measuring agricultural greenhouse gases – current projections are that agricultural emissions will exceed 1990 levels by around 25 Mt in total over the first commitment period, but this figure may change following a review of calculation methods and in response to ongoing changes in stock numbers.

- Projections for the NEECS are indicative and are critically dependent on adequate funding (not yet confirmed) and effective implementation. Some

[6] Including elements of the anticipated New Zealand Transport Strategy.

transport programmes and an estimate of the impact of Negotiated Greenhouse Agreements (NGAs) are included in the estimate.

21 Sink credits can be used (at a national level) to manage the risk associated with these uncertainties[7]. Note, the current sinks estimate is itself dependent on a number of factors including: continuing modest forestry expansion; no catastrophic loss of carbon in forests due to pests, disease or fire; and continuation of low rates of forest clearance and conversion.

THEMES FROM CONSULTATION

22 Consultation was held in October - December 2001 on the question of ratification of the Protocol and possible policy measures to enable New Zealand to meet its obligations under the Protocol. In general there was a lack of public understanding of climate change, which has led to concerns about proposed policy options. However, frequent themes included a recognition that:

- Climate change needs to be addressed, and New Zealand should adopt policies to reduce greenhouse gas emissions, whether New Zealand ratifies the Kyoto Protocol or not.

- New Zealand should adopt a range of both market and non-market strategies. There was strong support for a hybrid policy approach. Participants wanted to adopt the softer options first and change gradually, giving high emitters the time to adapt.

- A price mechanism would be needed to change behaviours and send a signal that Kyoto was real. However, many participants did not like the idea of emissions trading, seeing it as too complicated and subjecting emitters and the economy to market uncertainty.

23 There were differences of view on when market-based policies should be implemented:

- Some saw this as more urgent because it was helpful in changing behaviours that are key to the long-term success of climate change policy.

- This meant there was some support for the introduction of a low-level emissions charge and projects prior to 2008, with rewards or credits being given for abatement efforts now.

- Other participants felt that education and research should be started now, particularly in agriculture, and high emitters should be given adequate time to adapt.

24 Many stakeholders struggled to engage in the discussion around sinks and only a few stakeholders had a good understanding of the forest sinks concept:

- All forestry participants were very concerned about the potential costs of compliance and how these costs might change land use and land values.

[7] New Zealand will need to determine what level of credits it could sell or offset against emissions and what level should be held in reserve against future liabilities and contingencies.

- Particular concern was expressed about the liability that might be imposed on forests should they be permanently cleared for a new land use. There would be perverse incentives created to de-forest land in the pre-commitment period, and that would lower log prices.

- There was a feeling that if there were any system to receive sinks credits, it should be voluntary, with Government taking responsibility by default.

25 Mäori were concerned about policy options. Some thought that climate change policies would have adverse economic outcomes for the primary production sector, which forms the basis of much of the Mäori commercial asset base:

- Increased production costs, and consequent decrease in forest value, would impact on Mäori forest owners, on employment, and on the legal relationship with Mäori partners under joint venture arrangements.

- Some considered that the creation of emissions units and sink credits would have Treaty implications.

- The creation of sink credits would affect the use of resources, and the distinction between Kyoto and non-Kyoto forests was seen as unfairly jeopardising the value of Mäori assets.

- The creation of deforestation liabilities would also impact on Mäori more than others because of the more limited options available to Mäori in the use of land.

THE PREFERRED POLICY PACKAGE

26 The package set out below contains the key elements of the Government's policy response to climate change in order to give Parliament, industry and other stakeholders a clear indication of future policy directions. It forms the basis of a further round of consultation, which will allow refinement of some detail in consultation with stakeholders.

27 It is important to emphasise that it is not possible or desirable to describe every policy detail and then treat each detail as immutable, because;

- climate change policy is complex and, like other policy areas, the range and mix of policies will evolve over time;

- policies need to be flexible, recognising a dynamic and changing international context;

- the timing of elements of the package, particularly market-based instruments, is important and can only be determined in conjunction with other issues associated with competitiveness;

- the policy will require regular reviews, currently proposed for not later than 2005, 2007 and 2010.

Objectives, uncertainties and key issues

28 The objectives of the preferred policy package are to:

- set a pace of adjustment for the New Zealand economy that allows our obligations to be met at least cost/greatest benefit, promotes business opportunities and minimises adverse impacts, and positions New Zealand for the future;

- progressively expose the economy to the international price of emissions, recognising that the Kyoto Protocol is designed to reveal a cost of carbon to help countries meet commitments at least cost;

- set the basis for decisions on how and at what level a price will be introduced to the New Zealand economy, taking into account the need to protect firms and sectors deemed to be at-risk;

- maximise the value of New Zealand's forest sinks in meeting Kyoto obligations.

Uncertainties

29 A key issue underlying how these objectives can be achieved is the possible outcomes for the Kyoto Protocol itself. There are essentially two broad possible outcomes, both of which require New Zealand to address greenhouse gas emissions:

- The Protocol enters into force

This occurs once 55 countries and countries representing 55% of developed country CO_2 emissions in 1990 have ratified. Currently 53 countries have ratified, including 2 developed countries. The 15 countries of the European Union have also now agreed to ratify, bringing the number to 68. Including the EU, the current level of developed country emissions reached is 26.7%. The "new" policy measures for the 2008-12 commitment period noted in paragraphs 55-57 below will only be relevant if the Protocol enters into force.

- The Protocol does not enter into force

New Zealand will still have commitments under the UN Framework Convention on Climate Change (to put in place policies and measures to reduce emissions and enhance sinks). A prudent risk management strategy would be to continue a gradual, incremental approach so as to avoid sudden shocks from new obligations and properly inform investment decisions by business. Existing policy programmes should continue because they have other important drivers and are worth doing in any case. The Government will need to consider what other low cost measures might be taken to keep New Zealand positioned to be able to participate in further international initiatives, should some other multilateral instrument arise in the place of the Kyoto Protocol.

30 It is uncertain at this time when the Protocol will enter into force. With the rejection of Kyoto by the Bush Administration, entry into force hinges essentially on ratification by the countries of the EU, those eastern European countries seeking to

join the EU, Japan and the Russian Federation. The EU will definitely ratify, while Japan will likely do so. However, recent reports about Russia's intentions indicate that they may delay ratification until they get certainty from Japan and/or European countries that their "hot air" emissions units will be purchased at a sufficiently attractive price.

31 A second key uncertainty is under what circumstances an international price will emerge that reliably signals market expectations of the near and longer term "cost of carbon". At this time, an EU emissions market, beginning about 2005 and based around the proposed EU emissions trading system, is the market that could provide such a price signal. It is likely, but not yet certain, that during the first commitment period the EU will allow other countries, like New Zealand, to connect to this system. A significant feature of the design of the EU emissions trading system is that it has a means to manage the price influence of Russia's hot air. The price signal emerging from 2008 from this market at least should be increasingly reliable. New Zealand should monitor developments here closely, in particular how the EU manages the establishment of this system while still providing incentives for Russia to ratify.

Key issues

32 The key issues in formulating policy to meet the objectives are:

- the extent to which policy should incentivise/signal in the pre-commitment period the need for longer term adjustments;
- the manner and extent to which the economy is exposed to the world emissions price during the first commitment period and the timing of the introduction of corresponding price instruments;
- how measures will be applied to different parts of the New Zealand economy;
- the extent to which the Government will retain sink credits and the associated liabilities or devolve them to private ownership.

33 Underlying the above issues are questions relating to how we deal with the competitiveness impacts of polices, effects on the vulnerable in society, and questions of transition and efficient incentives. These issues are addressed in the package below.

Elements of the preferred policy package

34 The preferred policy package comprises several key elements, the primary one being the "foundations" or existing policies to which new elements will need to be added over time. The effectiveness of these foundations in encouraging emissions reductions over the medium to long term will depend heavily on adequate funding and implementation. There will also be new policies for the pre–commitment period and for the commitment period.

Foundations

35 Existing policy and emerging strategies lay the "foundations" for the policy package. It is important to recognise that many of these policies have already been adopted and will be implemented over a period of years. They include the Growth and Innovation Framework (GIF), the National Energy Efficiency and Conservation Strategy (NEECS), a New Zealand Transport Strategy (expected later this year) and the New Zealand Waste Strategy.

36 The foundations also include broad non-price programmes that need to be developed in order to support actions across the economy and society, such as programmes for business and economic development, research, public awareness and adaptation. The local government sector can also play an important role in addressing climate change.

Innovation and business opportunities

37 Maximising the benefits of the Protocol for the New Zealand economy will require an innovation driven approach consistent with the Government's Growth and Innovation Framework.

38 New Zealand businesses will increasingly be required to operate in a global marketplace where greenhouse gas emissions have a cost. Because of this, Kyoto will be a catalyst whereby the marketplace will demand new solutions, innovation and technologies. The Protocol will also create a competitive advantage for those industries that have 'climate friendly' processes (building on New Zealand's brand of "clean and green"). Branding will be important in building the foundations for our future international competitiveness.

39 The New Zealand Business Council for Sustainable Development, in conjunction with the Ministry of Economic Development, is exploring business opportunities arising from climate change. Many of the opportunities identified so far are high technology in highly specialized niche markets. There are two key deliverables from this project. The first is a report by the end of May on the identified opportunities, and conclusions about what, if any, barriers there may be for the business sector to exploit these. The second will be a set of practical tools and guidance to business on measuring and reducing greenhouse gases, in a way that maximises the business benefit. It is proposed to report back to Cabinet once the research project (and related work) is complete and has been assessed.

National Energy Efficiency and Conservation Strategy (NEECS)

40 Last year the Government released the National Energy Efficiency and Conservation Strategy (NEECS). MFE/EECA estimate that if all the programmes are implemented, the NEECS could contribute emission reductions of about 20 Mt in the first commitment period (15Mt from energy efficiency and 4 - 6Mt from renewables). To implement the energy efficiency elements of the NEECS, EECA estimates additional funding increasing from $4.6 m per annum to $25.7m in 2006/07 will be required. $4.6m is being sought in the 2002-3 budget to commence funding of this work. Additional funding to implement the renewable energy programme will be sought in a forthcoming cabinet paper, *Renewable Energy Target and Mechanisms*. The success of the renewable energy programme (and its contribution to emission reductions) will rely to a large extent on implementation of climate change policies (particularly Project funding).

New Zealand Transport Strategy

41 The Government has recently announced a series of land transport policy decisions. These include the adoption of a vision for the New Zealand Transport Strategy that "by 2010, New Zealand will have an affordable, integrated, safe, responsive and sustainable transport system". Other key decisions include significant increases in funding for more energy efficient modes of transport and legislative changes to ensure the allocation of funding reflects the principles and objective of the Strategy. These decisions signal a more sustainable approach to transport and will contribute to reducing transport greenhouse gas emissions. The Government has also approved, in principle, the development of an Electronic Road User Charges system. If implemented this system would make a significant contribution to the management of emissions from land transport. These and other policies are also captured in the transport programme of the NEECS.

Waste Strategy

42 Current trends in waste management and the New Zealand Waste Strategy should make a major impact on the level of methane emissions from waste (4% of New Zealand's overall emissions). Provided that central and local authorities secure effective mechanisms for ensuring that waste reduction targets are met, these efforts could reduce excess emissions by 5 Mt during the first commitment period. The Waste Strategy is discussed further in the Cabinet paper, *Climate Change II: New Policies.*

Research

43 Research into understanding the underlying science of climate change, its impacts, adaptation options, and opportunities to reduce greenhouse gas emissions, including the commercialisation of the associated intellectual property, will form an important part of the Government's response to climate change. New Zealand currently invests around $23.5m per annum in research relevant to climate change, of which $18.1m is provided through the Foundation for Research, Science and Technology (FRST).

44 However, the Government recognises that there is not yet enough focus on solutions to climate change. The Government increased its funding by $1 million this financial year for research into reducing ruminant methane emissions. The Minister for Research, Science and Technology has also requested FRST to reprioritise $1 million of climate change research over the next three years to energy efficiency research and the reduction of greenhouse gas emissions from transport[8]. A much larger research effort will need to be established quickly with a greater contribution from the private sector, particularly in the agricultural sector. This is discussed in Annex 1 of *Climate Change II: New Policies*.

Public Awareness Programme

45 A key element of the preferred policy package is continued development and implementation of a Public Awareness Programme aimed at all members of society. Effective implementation of the preferred policy approach relies on an informed and active public and stakeholders who are willing and able to make the kind of behavioural changes needed to manage greenhouse gases. The public awareness programme is contained in the accompanying paper, *Climate Change V: Public*

[8] The NEECS seeks to encourage further research into sustainable energy supply.

Awareness Programme. It sets out the need for continued development of the Programme by strengthening partnerships with key stakeholders, raising awareness through a media campaign beginning next year, and distributing material accordingly. …… …… ……

Adaptation

46 Management decisions made today can affect our ability to cope with climate variability as well as long-term change. The overarching objective of an adaptation strategy is to minimise damages and maximise opportunities arising from the impacts of climate change by proactively adapting to the anticipated changes. It is a necessary complement to mitigation, which seeks to reduce the rate and amount of climate change itself by reducing the global emissions of greenhouse gases. The cabinet paper, *Climate Change IV: Adapting to Climate Change*, summarises work already completed in this area, seeks agreement on long-term objectives and the scope of future work, and identifies needed funding for the next stage of the adaptation work programme.

Local Government

47 The local government sector can make a positive contribution to New Zealand's response to climate change through its size, community governance role, regulatory powers, ownership of local infrastructure and the broad range of activities it undertakes in diverse local environments. It will be important to initiate proactive communication and partnership processes with local authorities.

48 Officials have commenced discussions with Local Government New Zealand (LGNZ) and EECA regarding the development and application of a climate change partnership programme for local government. The International Council for Environmental Initiatives (ICLEI) Cities for Climate Protection (CCP) programme, as exists in Australia and elsewhere, is one partnership model. Officials are currently considering how this model might be adapted for application in New Zealand.

49 A climate change partnership programme would assist local authorities produce local inventories, targets, action plans and monitoring programmes. It would build on existing energy efficiency programmes operated by EECA and provide a vehicle to encourage implementation of the relevant parts of New Zealand Waste Strategy and transport policy. …… ……

50 The Cabinet paper – *Climate Change III: The Role of Local Government* discusses the contribution of the local government sector in greater detail.

Resource Management Act

51 There have been many requests for a clarification of the role of the Resource Management Act 1991 (RMA) in mitigating emissions at a local level. Officials consider that the Government, as part of the climate change policy package, should clarify the policy by signalling that it intends to amend the RMA at the time that the Protocol comes into force. The intention would be to remove the potential for 'double jeopardy' for applicants, when greenhouse gas emissions are managed at a national level through climate change policy instruments outlined in Cabinet paper II, and also at a local level through the planning and resource consent tools of the RMA. This is discussed further in the Cabinet paper – *Climate Change III: The Role of Local*

Government. Local authorities will continue to use RMA controls to plan for and manage climate change impacts that are part of environmental hazards and natural resources.

New pre-commitment period policy

52 A key reason for the decision in Kyoto in 1997 not to have binding targets until 2008 was to give countries time to develop and implement the additional policies that would allow targets to be met at least cost. It was recognised that many countries were still experiencing strong growth in emissions and an adequate period of transition was necessary.

53 There are two broad reasons why early action on climate change can help reduce future costs:

- *uptake delays*. Policies intended to change behaviours will take time to work. It is important that significant progress is made by 2008 when excess emissions will involve a cost. A permanent reduction that has occurred already by 2008 reduces excess emissions during the commitment period. Cost reductions are therefore significantly affected by pre-commitment period actions.

- *learning-by-doing*. The development of new technology is generally an iterative process. Firms learn how to make the best use of resources by practice or "doing". There are significant opportunities for New Zealand firms to become players in the new international market for emission reductions and carbon sequestration.

54 Existing policies and strategies will make an important contribution to minimising future costs. However, additional polices will be required to prepare the economy for the first and subsequent commitment periods. The policy package includes a number of measures in the pre-commitment period to create incentives for industries to start on the path towards emissions reductions. These include:

- Projects - a broad based project mechanism will be established with a fixed contestable fund and/or pool of emission units.

- NGAs - for the group of entities[9] that would be considered the "at-risk" group[10] (depending on the level of price introduced from the first commitment period onwards), the Government will offer Negotiated Greenhouse Agreements (NGAs) for the period through to 2012. These would require the at-risk firms to achieve international best practice in emissions management in return for a partial or complete exemption from any price measure applying in the first commitment period. The primary negotiating point would be the pathway and

[9] "Entities" refers to firms and/or industries.

[10] At-risk is where there is a significant risk of industry output and emissions shifting to another country without emissions costs (i.e. carbon leakage), and there is significant risk to the firms competitiveness in export markets; and/or there is significant risk of import displacing domestic production. The criteria are most likely to apply to:

- export industries (or sectors) where a significant proportion of output is in direct competition with international firms that may not be subject to emissions management in their own country; or
- import substitution industries that may face significant competition from imports from countries without emissions costs.

timeline for each industry or sector. Such firms could benefit from early investment in research, projects and existing policy programmes.

- Industry/government funded agricultural research - for the agriculture production sector (non-CO_2) the primary approach would be based on promoting a sustained research effort by the sector aimed at identifying and developing technologies to reduce on-farm agricultural emissions, and encouraging their uptake. Investment in research is likely to have spin-off benefits of improving efficiency in animals and feedstock. The Government already makes a significant contribution to agricultural research[11]. This research has direct commercial application and could have a significant payback if the right technical solutions are found. Increased agriculture research will be implemented through a negotiated partnership approach with the sector aimed at ensuring that the sector, or representatives of the sector, contributes adequately to the development of solutions that will benefit them over the long term.

- For synthetic gas emissions (not deemed at-risk) the approach is based on the development of industry solutions such as the IRHACE[12] code of practice, training and certification programme for HFCs. Access to projects is also proposed to further incentivise improved management practice.

New first commitment period policy

55 During the first commitment period, the international price of emissions will determine the value of emissions abatement/sequestration. To minimise the long term costs of compliance (and maximise the benefits), New Zealand should abate where it is cheaper to do so than it is to purchase emission units or use sink credits. There are, however, a number of important issues to be considered in the decisions on introducing a price for emissions and determining the form and level of that price. These include:

- current uncertainties about when the Kyoto Protocol will enter into force;
- what the responses of the some of the key players will be such as Japan and Russia;
- how our major trading partners and competitors will respond;
- what future technologies will evolve; and
- how the international market for emissions units is likely to evolve.

56 In moving to an emissions price, there would be adjustment costs, and New Zealand needs to determine the appropriate adjustment path in the face of these uncertainties. These issues are discussed in more detail in *Climate Change II: New Policies.* The policy package recognizes that there are a number of firms and industries that may be significantly affected by the introduction of an emissions price. Firms and industries that are considered to be at-risk would be treated in a differentiated manner during the transition to Kyoto becoming a more global regime.

57 The elements of the first commitment period policy (discussed in *Climate Change II: New Policies*) are:

- Continuation of the foundation policies, projects and NGAs from the pre-commitment period.

[11] It is difficult to precisely quantify the contribution of government as the primary purpose of the research is often not greenhouse gas emissions abatement.
[12] Institute of Refrigeration Heating and Air Conditioning Engineers New Zealand Inc.

- For the not-at-risk group, an emissions charge will be introduced that approximates the international price of carbon. The charge will be capped at (ie: will not exceed) $25 per tonne of CO_2 equivalent. The Government will retain the option of moving to private sector emissions trading if the international market is functional and the international price of carbon is reliably below the price cap.

- Setting an emissions charge for (or selling emissions units to) not-at-risk firms would gather a significant amount of revenue. Under a full or partial emissions price, the revenue could be used for supporting polices directed at changing behaviours associated with climate change, with the remainder available for recycling into the economy. Sufficient funds would first be set aside to fund project mechanisms and programmes such as the NEECS, and some proportion could be kept in reserve against future liabilities and contingencies. Because New Zealand is a net seller of emissions units, more money will be recycled than collected under any option.

- At-risk industries would be sheltered from all or part of the emissions charge. Pre-commitment period policies under NGAs would continue throughout the first commitment period.

- For the agriculture production sector in the pre-commitment period, research programmes will be continued through a negotiated partnership approach with the sector (or representatives of the sector), with the Government retaining the option of imposing a research levy if the research effort falls below what is required.

- For forestry sector sinks and associated liabilities, it is proposed that the Government retain responsibility for all sink credits and their associated liabilities, at least for the first commitment period. It is proposed that the Government assign a proportion of the credits (or an equivalent value) to incentivise the establishment and enhancement of sinks. Indicative budgets prepared thus far suggest that around ……(or credits to this value) beginning as soon as possible might be set aside for this purpose.

- Individual forest owners would not face a deforestation liability, provided the total liabilities to the Crown stayed within a cap of 5% of each year's harvest. If it became apparent that the cap might be breached during the first commitment period, the Government would have the option of lifting the cap or developing policy to allocate deforestation activity within the proposed cap.

- For synthetic gas emissions (not deemed at-risk) the approach is to continue the pre-commitment period policies such as the IRHACE code of practice, training and certification programme for HFCs. Access to projects is also proposed to continue.

TRADE POLICY IMPLICATIONS

58 The policy package gives rise to a range of possible issues with respect to the conduct of trade under WTO rules, particularly with respect to WTO subsidies disciplines. Accordingly, policies will need to be carefully designed, having regard to our international trade obligations.

NEXT STEPS

59 Consultation on the preferred policy package will be undertaken in May through to June 2002. Officials will continue to work on the policy options as feedback is received from the consultation process. Concurrent with this process the Select Committee consideration of the National Interest Analysis will continue, as will the introduction of the Part I legislation in May. A final decision on the package, as well as on ratification of the Kyoto Protocol can then be made by late July 2002. This package will require some additional legislation to be implemented.

CONSULTATION

60 The following departments have been consulted in the preparation of this paper: Ministry of Agriculture and Forestry, Ministry of Consumer Affairs, Ministry of Defence, Ministry of Economic Development, Ministry of Education, Ministry for the Environment, Ministry of Fisheries, Ministry of Foreign Affairs and Trade, Ministry of Health, Ministry of Justice, Ministry of Social Development, Ministry of Research, Science and Technology, Ministry of Transport, Te Puni Kokiri, The Treasury, the Department of Internal Affairs, the Department of Conservation, the Department of Statistics. The Energy Efficiency and Conservation Authority (EECA) and Local Government New Zealand have also been consulted in the development of this paper.

SPECIFIC MÄORI /TREATY OF WAITANGI ISSUES

61 There are two distinct limbs to the assessment of consistency with the Treaty of Waitangi: the process by which the policy is being developed, and the substance of the policy proposals.

62 It is considered that the policy development process meets the Treaty obligations of good faith dealing. The government has already undertaken substantial consultation on climate change issues, including consultation specifically directed to ascertain the views of Mäori. More consultation is proposed, once a preferred policy package has been developed. Across all parts of the policy development work, specific attention is being paid to the impact of the proposals on Mäori, and to assess whether they may have a disproportionate impact on Mäori. The government will therefore have met its obligation to be informed of Mäori and Treaty considerations by the time it takes final decisions on the policy package. Te Puni Kökiri notes that the Federation of Mäori Authorities (FOMA), an organisation that represents 100 – 150 Mäori members who collectively administer approximately 800,000 hectares of land on behalf of an estimated 100,000 Mäori beneficial owners, has queried the integrity of previous consultation, as they consider the Government's mind has not been open during consultation.

63 Turning to the substance of the policy proposals, the foundations of the policy package – current policies that will support reduction of emissions – already incorporate elements that derive from the Treaty and from consideration of impacts on Mäori. They raise no new Treaty issues.

64 With regard to proposed new policies, consultation with Mäori has identified significant concerns over the effect of possible emissions charges on the agricultural sector (methane and nitrous oxide) and the possible flow on effects for the profitability and value of Mäori owned land currently in agricultural production. A further more general concern was expressed about the effect an emissions charge

might have on industries processing primary produce. TPK has highlighted the seafood-processing sector as an area of particular interest to Mäori. In general any mechanism that imposes a cost of emissions should avoid disproportionately affecting Mäori.

65 In the case of agriculture, the proposed package does not recommend the imposition of a charge on either methane or nitrous oxide (though a very modest industry contribution will be sought to cover the cost of further research). This directly addresses the concern raised by many Mäori that such charges would affect their ability to generate reasonable returns from their land. To make this commitment, the Government will need to assign more than half of its initial allocation of emission units to cover the agricultural sector.

66 Turning to the forestry sector, many Mäori also expressed strong concern over the arbitrary distinction in the Protocol between non-Kyoto forests (i.e. pre-1990) and Kyoto forests (i.e. post-1990). Of particular concern is the possibility that non-Kyoto forests may face a deforestation liability and that this would restrict future land use options. Concern has also been expressed at the effect of the non-Kyoto / Kyoto delineation on land values and the flow-on effects to land use options. Some owners of Kyoto forests were concerned about possible compliance costs of accounting for carbon and the liabilities that would probably arise when their trees are harvested.
In addition to concerns over the effect of possible emissions charges, many Mäori raised the issue of how the Crown would allocate any property rights associated with the Protocol; in particular sink credits and assigned amount (emission) units. A widely held view amongst Mäori is that the ownership of sink credits is inextricably linked to the ownership of the forest and that they are therefore covered by Article 2 of the Treaty. Some Mäori also expressed a view that should the Crown decide to allocate emission units (either gratis or by auction), then the Government would need to consider how to give effect to the Mäori interest (eg by reserving some units for use specifically by Mäori).

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71 The current policy, ……proposes that the Crown retain all emissions liability and associated sink credits for the forestry sector. In terms of forestry, the Government proposes to retain all sink credits and harvest and deforestation liabilities for Kyoto forests, at least for the first commitment period. The Government will also allow deforestation of non-Kyoto forests without liability - up to a cap of 5% of the area of forest that would normally have been harvested in the first commitment period. This cap should be sufficient to allow deforestation and conversion to alternative land uses at the rate that has occurred historically. Some 10.5 million tonnes of emission units will be allocated to cover the deforestation liabilities within the proposed cap. This should be sufficient to cover any deforestation and conversion on Mäori land. ……..

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72 In addition, the proposed package includes the assignment of funds to incentivise the establishment and enhancement of sinks. A proportion of these incentive programmes might be targeted directly at Mäori land. For example, in December 2001 Cabinet agreed in principle (subject to funding) that the Government fund new forestry development on Mäori land [CAB Min (01) 37/11 &12 refers]. Funding from the resources allocated to enhance sinks might be used for this purpose. Indicative estimates for incentives to establish and enhance sinks are around ……...

73 Government retention of forest sinks would impose few if any compliance costs on landowners and no future harvest liabilities. It would also minimise distortions between land that qualifies for Kyoto forests and land that does not. This would deal with a major concern of Mäori.

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FISCAL IMPLICATIONS

75 The fiscal implications of the "foundation" policies involve ensuring that existing policy measures, in particular the NEECS, are adequately funded:

- To implement the energy efficiency elements of the NEECS, EECA estimates additional funding increasing from $4.6 m per annum to $25.7m in 2006/07 will be required. $4.6m is being sought in the 2002-3 budget to commence funding of this work;
- Additional funding to implement the renewable energy programme will be sought in a forthcoming cabinet paper, *Renewable Energy Target and Mechanisms*;
- …… ……

76 The fiscal implications of new policy measures are set out in the Cabinet paper, *Climate Change Paper II: New Policies,* while those for proposals in the areas of local government, adaptation and public awareness are set out in their respective Cabinet papers in this series. These are being dealt with through budget processes.

Government arrangements for climate change policy

77 Consideration will need to be given to the nature and scope of the administration and infrastructure to support the Climate Change Policy Programme. The resourcing required is dependant on the nature of the policy package and the institutional arrangements for implementing the policy. Officials will report back at the time of final policy package decisions on the on-going funding requirements and institutional arrangements for implementation of the climate change policy, including on the model of an independent greenhouse office.

LEGISLATIVE IMPLICATIONS

78 Legislation to enable the implementation of the policies set out in the preferred policy package is expected to be introduced in 2003. There are, however,

several outstanding policy matters requiring decision before Cabinet can consider the Act 1 legislation, the Climate Change Response Bill. These are set out below.

Outstanding policy matters for Act I Legislation

79 On 8 October 2001, Cabinet (CAB Min (01) 31/11) agreed that the Act I legislation to allow ratification of the Kyoto Protocol include a provision for creating offences and penalties for non-compliance with inventory and registry agency powers.

80 On 3 December 2001 Cabinet agreed to the type of offences and level of penalties in respect of the inventory agency (CAB Min (01) (01) 37/5). The policy on the type of offences and level of penalties in respect of the registry agency has not yet been addressed but needs to be set now prior to the draft Bill being submitted to LEG for approval and subsequent introduction to the House.

Registry offences and penalties

81 It is proposed that the Bill provide for an offence of knowingly or recklessly providing false or misleading information to the Registrar. The offence provision is drafted so as to place a burden on the prosecution to prove the *mens rea* element (i.e. “knowingly or recklessly”).

82 An offence with a *mens rea* element justifies higher penalties than would be appropriate for strict liability offences (such as prescribed in the Inventory sections of the Bill). As such, the penalty for the offence would be a monetary fine up to a maximum of $50,000 for an individual and $200,000 for a company. The penalty for recklessly providing false or misleading information is a monetary fine of up to $2,000.

83 The offence provisions and levels of penalties are broadly in line with offences relating to public registers under other recent legislation and the Ministry of Justice has been consulted.

Regulatory impact

84 The regulatory impacts of the Registry offence and penalty provisions will be consistent with offences and penalties provided in similar legislation relating to registries.

RECOMMENDATIONS

It is recommended that the Committee:

1. **note** that the policy principles agreed by Cabinet on 11 February 2002 (see Annex 1) indicate the need for a transitional, staged approach which recognises the uncertainties in the emerging Kyoto regime and international trading environment, and ensure that New Zealand stays in step with the development of the Protocol itself and with developments in its main trading partners;

2. **note** that the objectives of the preferred policy package are to**:**
   - set a pace of adjustment for the New Zealand economy that allows our obligations to be met at least cost/greatest benefit, promotes business

opportunities and minimises adverse impacts, and positions New Zealand for the future;

- progressively expose the economy to the international price of emissions, recognising that the Kyoto Protocol is designed to reveal a cost of carbon;
- set the basis for decisions on how and at what level a price will be introduced to the New Zealand economy, taking into account the need to protect firms and sectors deemed to be at-risk;
- maximise the value of New Zealand's forest sinks in meeting Kyoto obligations.

3. **note** that existing policies lay the "foundations" for the policy package; including the Growth and Innovation Framework (GIF), the National Energy Efficiency and Conservation Strategy (NEECS), the New Zealand Waste Strategy, and the expected New Zealand Transport Strategy, and are supported by programmes for local government, business and economic development, research, public awareness and adaptation;

4. **note** that the extent to which existing policies aimed at reducing greenhouse gas emissions can be effective will be dependant on the level of funding, particularly for the NEECS. Officials have been using a working assumption of about ……. ……. to fund programmes, Projects, and administrative/institutional arrangements;

5. **note** that the new policy measures for the 2008-12 commitment period will only be relevant if the Protocol enters into force, although if the Protocol does not enter into force, a prudent risk management strategy would be to continue with existing policy foundations;

6. **note** that new policy measures for the pre-2008 and first commitment period of the Kyoto Protocol (2008-12) are discussed in the cabinet paper, *Climate Change Paper II: New Policies;*

7. **note** that the policy package gives rise to a range of possible issues with respect to the conduct of trade under WTO rules, and that policies will therefore need to have regard to these obligations*;*

8. **note** that the important role of local government and the issue of the Resource Management Act with respect to climate change are discussed in the Cabinet paper, *Climate Change III: the Role of Local Government*;

9. **note** that adaptation to the impacts of climate change is discussed in the Cabinet paper *Climate Change IV: Adaptation to Climate Change* and that a public awareness programme is discussed in the Cabinet paper, *Climate Change V: Public Awareness Programme;*

10. **note** that consultation on the preferred policy package will be undertaken in May through to June 2002 with advice to Ministers on the final package in late July 2002 at which point a final decision on ratification will be taken;

11. **authorise** the Ministerial Group on Climate Change to approve the consultation document and plan for consultation on the preferred policy package, by round robin or otherwise;

12. **note** that officials will continue to work on further refinement of the preferred policy package as feedback is received during and from the consultation process and international events;

Additional policies for Act I ratification legislation

13. **agree** that the Act I ratification legislation include an offence of knowingly or recklessly providing false or misleading information to the Registrar with corresponding monetary penalties.

Business opportunities

14. **agree** that the business opportunities work stream will report back on all of its components to Cabinet once the New Zealand Business Council for Sustainable Development research project (in conjunction with the Ministry of Economic Development) is completed and assessed, prior to a final decision on ratification in July 2002;

Hon Pete Hodgson
Convenor, Ministerial Group on Climate Change

ANNEX 1 – Goal and principles for a preferred climate change policy approach

Goal: New Zealand should have made significant greenhouse gas reductions on business as usual and be set towards a permanent downward path for total gross emissions by 2012.

This goal means that:

- New Zealand will be on a path to reshaping its energy use;
- there will be an increased rate of technology uptake on renewables, energy efficiency, lower emissions production;
- all sectors will be addressing emissions and positioning themselves greenhouse-wise on world markets;
- research findings to date will have been transferred to agricultural practice;
- new buildings dwellings, plant, vehicles and machinery will be at the optimal edge of efficiency;
- there will be a population knowledgeable about greenhouse gases and taking responsibility for them.

Key principles for future policy development

Policies must result in permanent reductions in emissions over the long term

⇒ Policies must achieve real and sustainable reductions in emissions across all commitment periods – both to protect New Zealand's international credibility and to ensure that we are prepared for future commitment periods.

⇒ Policies should avoid carbon leakage. This will protect the objectives of the Protocol pending the creation of a truly global emissions regime.

⇒ Policies will aim for long-term permanent changes in behaviour.

Policies need to be responsive to the changing international context

⇒ The policy approach needs to recognise the uncertainty about future changes up to 2012, including changes in our emissions profile, in technology, and the international environment.

⇒ Policy development will be incremental, building from low cost policies now to policies that expose emitters to the full emissions price as factors such as knowledge and certainty increase and as countries currently without emissions targets take on targets and expose their economies to the international price of carbon.

⇒ Policies therefore will be adaptable and flexible, recognising the need for businesses and other stakeholders to be able to accept and respond to policy changes. They should allow for a transitional, staged approach to give affected emitters time to adjust.

⇒ Policies must be simple and comprehensible in order to effect the necessary behavioural changes.

⇒ Policies will be increasingly globally focused as targets under the Kyoto Protocol become increasingly globally based.

⇒ Policies will be developed in close consultation with stakeholders, and will include processes for partnership and cooperation with key affected stakeholders.

⇒ The policy package will include regular reviews of progress with emission reductions and effectiveness of policies, and criteria or milestones for when policy changes or new policy might need to be set in place. This includes periodic review of the goal, having regard to our domestic actions and the evolving international market situation.

Policies need to be consistent with a growing and sustainable economy

⇒ Policies will recognise that competitiveness now and tomorrow is important for all our industries (including new entrants).

⇒ Policies will move progressively to a full cost on emissions when competitiveness issues have been addressed by a full global targets regime.

⇒ Policies should avoid inappropriate distortionary effects on investment.

⇒ Policies will promote economic opportunities in climate change.

Policies will not disadvantage the vulnerable in our society

⇒ Policies should aim to ensure that lower socio-economic groups are not disadvantaged as a result of Kyoto commitments.

ANNEX 2 – DEFINITIONS

At-risk – firms or industries for which imposing an emissions price could have a significant detrimental effect on their competitiveness, with associated flow-on effects through the economy. This may result in carbon leakage, where companies reduce production in New Zealand only to continue emitting in another country, potentially resulting in increased worldwide emissions.

Functional market – criteria for determining whether an emissions trading system will provide an efficient price are:

- The international emissions trading market is a well-functioning market where transaction costs are low and prices are determined competitively
- The situation regarding the participation in the international market of possible and likely major buyers, including the US, Japan and EU is clear
- Russia and the Ukraine are able to use the Kyoto mechanisms (i.e. they can sell their excess emission units)
- Second commitment period targets have been negotiated and likely second commitment period participants identified
- Analysis of economic, social and competitiveness impacts has been undertaken and any outstanding concerns can be addressed.

Negotiated Greenhouse Agreements (NGAs) – a contractual means by which a firm or sector receives protection from some or all of a future price instrument such as a levy or tax in return for agreeing to undertake mitigation measures (i.e. for an agreed emissions path) consistent with its individual circumstances, with the overall objective of achieving world best practice on emissions per unit of production.

Not-at-risk – firms or industries where it is desirable to let a price signal flow, which have the ability to pass increased costs down (and up) the supply chain, or where costs can be easily mitigated through means other than sheltering from an emissions price.

Programmes – policies, measures and activities that will have an impact on greenhouse gas emissions or will address climate change issues but where results generally cannot be accurately determined in advance. Programmes often involve building knowledge and experience, identifying and overcoming barriers and facilitating market transformation.

Projects – measures aimed at delivering defined expected reductions in greenhouse gas emissions, e.g. from enhanced uptake of technologies and practices, or enhancement of sinks in return for provision by the Government of an incentive, generally either via funds or emissions units. Such projects would not be currently economic, or market barriers exist to prevent their uptake.

Revenue recycling – involves using revenue from the sale of emission units or an emissions charge to reduce other taxes that create economic distortions. Recycling revenue can reduce the overall cost to the economy of controlling greenhouse gas emissions.