NEW ZEALAND BUSINESS ROUNDTABLE

Submission on the Climate Change (Emissions Trading and Renewable Preference) Bill

FEBRUARY 2008

1. Introduction

1.1 This submission on the Climate Change (Emissions Trading and Renewable Preference) Bill is made by the New Zealand Business Roundtable, an organisation comprising primarily chief executives of major New Zealand business firms. The purpose of the organisation is to contribute to the development of sound public policies that reflect overall New Zealand interests.

1.2 We acknowledge the government's need to take action in the light of international developments. We have long supported broad-based price measures as the most efficient means of reducing gross or net emissions, should the case for such action be demonstrated. Policies such as subsidies for renewable energy, 'energy-efficiency' programmes, and 'command and control' regulations are economically inefficient (do more harm to the economy) relative to market-based instruments (emissions taxes or trading). We have also urged that actions by New Zealand should not put it ahead of other countries that are important to us for trade or other reasons. For the foreseeable future, this calls for sheltering competitive-at-risk activities from a price on carbon. Most of all we have called for a rigorous demonstration that the costs of any measures imposed on New Zealanders are commensurate with prospective benefits. Unless there is a broad consensus about the reasonableness of policies, they will not be politically sustainable.

1.3 We continue to hold these views. New Zealand can move in line with Australia and other countries on global warming without adopting measures that could make no discernible difference to global emissions yet would materially reduce investment, economic growth and the ability of New Zealanders to adapt flexibly to future challenges.

1.4 The global warming issue involves science, economics and politics. The science is not determinative. Even if (human-induced) warming is occurring, important questions must be addressed as to whether it is economically sensible to take action to reduce it, or to adapt to climate changes. For the purposes of this submission, we accept the view of the science most recently put forward by the UN Intergovernmental Panel on Climate Change, but note that many uncertainties remain and that whether the trend in warming is towards the bottom or the top of the IPCC range has very different implications for policy. The crucial economic

aspect of the issue, both globally and for New Zealand, is whether the benefits of taking action to mitigate warming trends (as opposed to adapting to them) exceed the costs. The important political dimension to note is that no government actions in democratic countries will be sustainable unless electorates are persuaded they should incur costs (reductions in incomes) in the interests of combating warming. Unstable policies mean investment uncertainty and unnecessary costs to businesses and the economy. All these points are well summarised in the recent lecture *A Cool Look at Global Warming: The Economics and Politics of Climate Change* by Nigel Lawson which is attached as Annex I.

1.5 In New Zealand's case, it needs to be recognised that nothing we can do will affect the global climate or, realistically, significantly alter other countries' approaches to the issue. It is also unacceptable for government policy advisers to ignore the benefits to New Zealand from moderate warming (temperature increases in New Zealand are expected to be around two-thirds of global increases and have benefits in terms of energy consumption, agricultural production, tourism and health) as well as the potential costs. For New Zealand the main benefits of mitigation policies are limited to favourable commercial and international relations impacts and reductions in future Kyoto-like liabilities. There also needs to be a clear recognition that because of our already high level of renewable energy production and the efficiency of New Zealand agriculture, emissions reductions are more costly in our case than in many other countries.

1.6 In the balance of this submission we examine in Section 2 the Bill's strategic approach to the climate change issue. Section 3 analyses the justification presented for New Zealand taking policy action by focusing on the all-important Regulatory Impact Statements in the Bill. In the absence of a rigorous justification, policy action will not be sustainable, as previous initiatives such as the methane levy, the carbon tax and negotiated agreements with firms have demonstrated. Section 4 discusses specific issues in the Bill. Our recommendations are set out in Section 5.

2. The Bill's climate change strategy

2.1 The Bill focuses almost exclusively on mitigation. It ignores the need to enhance the ability to adapt and to facilitate economic growth. Only a healthy economy with

high rates of innovation and investment in new technologies will enable New Zealand to meet global warming challenges. Instead, specific, essentially arbitrary, goals are set for progress to 'carbon neutrality', with only a secondary acknowledgement of the need to consider the potential costs of mitigation and the speed with which other counties are moving.

2.2 A central presumption driving the measures in the Bill is that a Kyoto-type regime of increasing stringency will continue beyond 2012, and that other countries will be adhering to it. A second presumption is that New Zealanders' welfare will be maximised by moving to a form of carbon neutrality by 2025, through zero sheltering of exposed value-added processing activities. A third central presumption is that a deep and liquid international market for carbon units will exist so that price volatility will not be costly and disruptive. The Bill acknowledges the need for contingent arrangements to guard against extreme losses of industries and price instability, but these considerations are not central to it.

2.3 In our view none of these presumptions provides a reliable basis for policy development. First, it is beyond dispute that China and India are adamant that they will not agree to Kyoto- or European Union-type goals for cutting emissions relative to 1990 levels. In the absence of action by these countries, the United States is unlikely to take costly action. Collectively these countries will soon be accounting for around three-quarters of global emissions. International action beyond 2012 may well take other forms, such as less coordinated initiatives, a greater focus on energy intensity, research, and technological transfer.

2.4 Second, the proposed goal of carbon neutrality for New Zealand is not supported by any national interest analysis (see below). At least for the period to 2025, carbon neutrality is simply an unattainable goal when set alongside the government's often-stated goal of raising New Zealand's economic growth rate (to 4 percent or more per annum) to lift incomes back to the top half of the OECD rankings. This was clearly demonstrated in a recent study by Infometrics which showed that even at a cost of $19,000 per household, New Zealand would be further away from a (conservative) goal of carbon neutrality than it is today.[1] A

[1] 'Carbon Mitigation Scenarios', Adolf Stroombergen, Infometrics Limited, New Zealand Business Roundtable and Petroleum Exploration and Production Association of New Zealand, February 2008.

summary of the study in the form of a media release is attached as Annex II. The response of climate change minister David Parker to the study questioned the scenarios on which it is based and disputed the impact on electricity and petrol prices. However, the economic growth assumptions reflect the government's own goals and the carbon neutrality scenarios are the government's own scenarios. Much higher electricity and petrol prices than those generated by the Infometrics model would be needed to achieve carbon neutrality. The impact on households is comparable to overseas studies, including a Canadian government White Paper, which have found them to be in the $5,000 – 10,000 range per annum. It is the government's assessment of the costs of achieving carbon neutrality, which assumes no impact on productivity, investment and employment, no transitional costs, and no losses of major industries, that lacks credibility. The government's claim that major emissions reductions can be achieved in the next 15-20 years without economic pain is a fraud on the electorate. Professor Ross Garnaut, the eminent economist advising the Australian government on climate change, has poured cold water over consultants' reports which purport to show that in the foreseeable future Australia can achieve deep cuts in emissions with little or no damage to the economy.

2.5 Third, it is clear that there are very serious problems of measurement, integrity and lack of international agreement that would need to be solved before there could conceivably be an agreed single price for carbon on world markets as the Bill envisages. The more likely reality for the foreseeable future is that any markets that exist are going to be diverse, politicised, controversial, and/or not available to New Zealand firms. The Australian government is going about addressing measurement, verification and implementation issues in a much more careful way.

2.6 We are pleased that the government has abandoned its plans, which we opposed, to focus narrowly on electricity sector emissions, and instead aims to adopt a broad-based, 'all sectors and all greenhouse gases', approach. This reduces economic distortions and avoids picking winners. However, we are gravely concerned that the government is rushing into an ambitious scheme with inadequate preparation and many issues still unresolved. The climate for investment in New Zealand could be very detrimentally affected by the apparent disregard for the loss of processing industries to other countries (with no benefits

in terms of global emissions), the disincentives associated with carbon price uncertainty, a politicised process for grand-parenting, draconian penalties, and infringement of property rights in the form of retrospective taxation. Other studies by the Major Energy Users Group and the Greenhouse Policy Coalition and by the Petroleum Exploration and Production Association of New Zealand (PEPANZ) have confirmed the risks to investment and employment of ill-considered actions.

2.7 We reiterate that given the need to respond to international initiatives, we are not opposed to some mitigative action. But any such action should be based on a robust assessment of national interests. We examine the quality of the government's assessment in the next section.

3. Evaluation of the regulatory analysis

3.1 The Bill contains Regulatory Impact Statements (RISs) in support of the proposed emissions trading scheme and the limits on new thermal electricity generation. An analysis of these statements is attached as Annex III.

3.2 Neither RIS makes a case that the benefits to the community from the measures it prefers are likely to exceed the costs. Since governments should not regulate unless it is necessary to do so in the national interest, the select committee should insist that the government assists it with its deliberations by providing a rigorous assessment of the national costs and benefits of its proposals.

The RIS on the Emissions Trading Scheme (ETS)

3.3 The RIS on the ETS is deficient under all the headings of the Cabinet Manual RIS requirements.

3.4 **Problem definition** The RIS is unclear on the question of what the problem is for which the ETS is a solution. Reductions in net emissions by New Zealand cannot conceivably alter the global climate, or materially influence the emission paths of major countries. On a sympathetic reading, the RIS must be proposing that an ETS would benefit New Zealand by protecting its international credibility and influence and by reducing the cost of the government's current Kyoto liability and any similar future liabilities. However, no attempt is made to quantify these factors. Nor is any attention given to the option of adaptation.

3.5 **Policy objective** As explained more fully in Annex III, the stated policy objective (based on reducing net emissions) is unsatisfactory in several respects. A major one is that it misdirects attention from the need to find the best solution for New Zealand to the identified problems. If no international agreement succeeds the current Kyoto liability, what sense does it make to distort resource allocation in the New Zealand economy and alter long-term investment decisions in order to reduce the current Kyoto liability to only a minor degree? Moreover, if the problem really is the burden of the current Kyoto liability, what justifies ignoring other options such as the Canadian government's approach (which is to acknowledge that it is unable to meet its commitments)? In any event, it is not at all clear that the liability will fall due. Many countries are projected to be in breach of their Kyoto obligations for the first commitment period, and no decisions have been made as to whether financial penalties will be applied. To impose penalties would obviously make countries less inclined to commit to tougher obligations in future.

3.6 **Identification of alternatives** The RIS only considers options likely to reduce net emissions. We concur with its view that, given the objective, the critical choice is between a carbon tax/subsidy scheme and an ETS. The RIS comes out in favour of an ETS, principally on the grounds that an ETS provides greater quantity certainty. We contest its analysis in section 4 below.

3.7 **Detailed issues in relation to the preferred option** The analysis in Annex III raises concerns about several aspects of the favoured ETS scheme. These mirror those raised by others, including the Castalia assessment in January 2008. Specific concerns include:

- the harsh treatment of competitive-at-risk industries
- the unacceptability of extreme swings in unit prices
- the undesirability of political control of the allocation of free units, rather than allocation by an independent agency which is required to adhere to non-party-political criteria
- the many uncertainties created for businesses and the severity of the proposed penalties, and

- the proposed retrospective tax on pre-1990 forests.

3.8 **No assessment of overall net benefits** Overriding all these issues is the total lack of any attempt to assess the relationship between the costs and the benefits of the proposed ETS. This is a clear sign that the analysis is not a national interest analysis.

The RIS on the thermal generation measures

3.9 The RIS submitted in support of the limit on new thermal generating capacity is entirely unconvincing. The argument given for imposing this additional cost on New Zealanders is that otherwise they would have less confidence in the government's climate change policy. No case is made that this is a real rather than an imaginary problem. By ruling out lower cost sources of generation the measure will add to electricity prices and reduce potential economic growth. There is no reason for the government to adopt regulatory measures of this kind when it is advancing a market-based approach to emission reductions. Arguably such a belt and braces approach reduces confidence in the government's principal strategy. The task force that advised the Australian government last year recommended that regulatory measures of this kind (and renewables, biofuels and energy efficiency mandates) should be scrapped if an ETS were adopted.

3.10 The RIS gives no consideration to the problem of unintended adverse consequences such as the disincentive to explore for gas that might give New Zealanders access to cheaper energy. A fall-off in gas exploration in New Zealand would be a major economic setback, given the very tight balance between electricity supply and demand that exists at present.

3.11 An analysis commissioned by PEPANZ found that price increases for electricity in excess of 40-50 percent in real terms within 15-20 years might occur as a result of the planned moratorium and 90 percent renewables targets in electricity. New Zealanders will inevitably demand to know why such high energy prices are in their interests. The RIS does not attempt to answer this question. Like the RIS on the ETS, there is simply no attempt to calculate the likely costs and benefits of this measure.

Concluding comment

3.12 In summary, we consider that the standard of the two RISs in the Bill is completely unacceptable. The essence of a cost benefit analysis is an attempt at quantification. No costs or benefits are quantified, despite the fact that many assessments of climate change policies internationally (such as the Stern Review) contain quantitative analysis. The key issue for New Zealanders is whether the costs of prospective policies aimed at carbon neutrality are likely to be of the order of, say, $50 million a year, $500 million or $5 billion, and the magnitude of the benefits to set alongside these costs. The benefits are not likely to be at the top end of the range. A cost figure at the lower end of the range might be acceptable to voters but one at the higher end might not. There needs to be transparency around this issue for policy to be sustainable, and currently there is not. The select committee should insist that it is provided with new and competent analysis.

4. Key policy design issues

4.1 This section examines the issues of:

- taxes versus permits
- the need for a safety valve with an ETS
- competitiveness-at-risk industries
- the need for an independent allocation agency
- the treatment of forestry
- thermal generation, and
- adaptation.

Taxes versus permits

4.2 At a high level, an emissions tax (coupled with a subsidy for carbon sinks) and an emissions trading scheme are similar. Both have the desirable property (compared with regulations) of being price-based, thus allowing participants in

markets to determine least-cost ways of reducing emissions. A tax/subsidy scheme establishes a price and allows markets to determine the quantity of emissions. An ETS sets permitted levels of emissions and allows trading in markets to determine carbon prices.

4.3 The Bill favours an ETS over a carbon tax on the grounds that it is in line with the quantitative framework established by the Kyoto Protocol and would provide more fiscal certainty for the government. However, the last point is not a national interest justification since what is good for the public accounts is not necessarily good for New Zealanders. Further, as the proposed ETS shifts an increasing proportion of the burden of the Kyoto liability onto the private sector after 2013, the fiscal cost will fall, and could become a large surplus.

4.4 We have extensively researched the academic literature and found that the overwhelming majority of eminent economists who have studied this issue favour a tax/subsidy scheme over trading. Their reasoning is typically as follows:

- A tax provides much greater certainty for business and investment decisions. With an ETS, prices may be extremely volatile, as EU experience has shown. The economic costs of volatility may be very high.

- If a tax/subsidy scheme does not generate an emission reduction path that is consistent with international targets, it can be adjusted from time to time, like other taxes. Because global warming is a very long-term issue, any deviations from desired quantity targets can be corrected if warranted. Such periodic adjustments (say every 5 or 10 years) would not reintroduce significant uncertainty. In any case there is uncertainty about the optimal number of permits to issue – making this a learn-as-you-go exercise also.

- A tax/subsidy scheme is a transparent instrument which is subject to parliamentary oversight and facilitates clear accountability to voters. An ETS is not transparent, which is no doubt why it is attractive to politicians in some other countries (although a number have imposed carbon taxes instead of or as well as an ETS).

- An ETS is much more open to political favouritism and abuse than a tax/subsidy regime. This has been clearly demonstrated by EU experience. The Bill provides for a great deal of ministerial and bureaucratic discretion which could well lead to inefficient, unfair and, at worst, corrupt outcomes.

- A carbon tax would raise revenue for the government which could be applied to reducing other distortionary taxes, in particular income tax. This was the recommendation of the 2001 (McLeod) Tax Review which favoured a tax rather than a trading approach.

- A tax/subsidy regime is likely to be simpler and less costly to administer and comply with.

4.5 At no stage did the Business Roundtable oppose a carbon tax proposal – our earlier concern was (and remains) that any intervention should be rigorously justified. We see a tax/subsidy regime as a better initial option for New Zealand, until such time as it is clear that a viable international market for trading has developed. That was also the view of the Productivity Commission of Australia in a 2007 report.

4.6 We consider that an initial tax should be set at a low level. This is in line with earlier government thinking which recognised the limited opportunities for emission reductions in the short to medium term. We suggest that an initial tax should not exceed the $5-10 per tonne of CO_2e range. This would already be a significant burden for some emitters. For New Zealand Steel, for example, which emits around 2 million tonnes of CO_2 annually, a tax of $10/MT would represent a cost of $20 million. This would be a severe hit to its profitability and put jobs at risk.

The need for a safety value

4.7 If a carbon tax/subsidy scheme is not adopted, we see it as imperative that a cap or safety value is introduced into the ETS to reduce the volatility of prices to which New Zealand firms may be exposed. The risk of high and volatile prices creates major investment uncertainty. Under the proposed ETS, major New Zealand firms entering the scheme in, say, 2010 and considering investment proposals right now can have little idea about the costs of carbon they might face. No board will

commit to capital investment projects in the presence of high levels of uncertainty, and this will be an ongoing problem. It is accentuated by the fact that there will be other location options for many firms in countries that have no Kyoto-type policies or better regimes.

4.8 For these reasons we strongly recommend the inclusion of a safety valve in the Bill to ensure that the price of carbon does not fluctuate wildly and exceed a price that would prejudice the viability of major New Zealand industries. This would require a provision in the Bill that allows the New Zealand market to be delinked from international markets but still allows firms to buy credits when they are available at lower cost than the domestic price. The domestic safety valve should be an upfront guarantee that if the price of units goes above a certain level more permits will be allocated. In its 2007 report the Australian government's Task Group on Emissions Trading recommended "Incorporating a price cap in the initial phase of the scheme – to limit excessive economic costs [and] help build support domestically." The risks of costly price volatility would also be reduced if the Bill provided for the banking and borrowing of units.

4.9 As with a carbon tax, the level of the cap could be adjusted periodically. For the reasons given above, we think the initial safety valve price should be set at no more than \$5-10/MT CO_2e. The government has argued that the price of carbon under the ETS would not be onerous. We think it should 'put its money where its mouth is' and agree to such a cap.

4.10 At this point, however, it needs to be recognised that a hybrid ETS scheme (incorporating a safety valve) has many of the properties of a tax/subsidy regime, albeit one that is more complex and costly to administer. At least in the initial stages and at relatively low carbon prices, we think a simple tax/subsidy scheme would be a better option

Competitiveness-at-risk industries

4.11 A major design issue with the policy is the position of so-called competitiveness-at-risk firms and industries. These include small and medium-size firms, as well as larger ones that are exporting or competing with imports and that could be lost in whole or in part to New Zealand if they face a carbon price in New Zealand to

which competitors in other countries are not exposed. Larger firms or industries in question include steel, cement, aluminium, wood processing, as well as many parts of agriculture. Many of the relevant businesses are operating at, or close to, best practice internationally, as was established when greenhouse gas agreements with them were being negotiated. Their migration to, say, China or, in the case of agriculture, Australia (which may exempt agriculture from any immediate action) would create a lose-lose situation. Investment and jobs would be lost to New Zealand but global emissions might well increase as a result of shortfalls in production in New Zealand being taken up by less efficient producers elsewhere.

4.12 We agree with Castalia's review of the Bill which, in summary, makes the points that:

- Competitiveness-at-risk industries will be exposed to relatively high and variable prices of emission permits, while their competitors do not face similar constraints.
- A cap of 90 percent on 2005 emissions is a cap on growth.
- A free allocation of 90 percent of 2005 emissions is less generous than is being contemplated in the EU ETS and will put New Zealand industry at a competitive disadvantage.
- Depending on the thresholds developed, most firms are likely to get considerably less than a 90 percent free allocation.
- Any free allocation based on historical emissions has the effect of giving some consideration for stranded assets, but does not prevent leakage of industry to other countries because any new investment is exposed to increased costs that international competitors are unlikely to be facing.
- With the phase-out of free allocation from 2013, any free allocation is temporary and industry will be increasingly disadvantaged compared to international competitors that may face no cost of carbon or 100 percent free allocation of credits if they are energy-intensive and trade-exposed.

- With no allowance for growth in the scheme (every new tonne of carbon is priced at the international price of carbon, and there is no new entrant reserve), New Zealand industry will be disadvantaged against all countries that do not price carbon, as well as those that do but which allow for emissions intensity measures and/or reserves for new entrants.

4.13 The essential problem here is the absence of a level international playing field for many of New Zealand's exporting and import-competing industries. In particular, very few countries in the Asia-Pacific region, which accounts for about three-quarters of New Zealand's two-way trade, are putting a price on carbon. This reinforces the point that New Zealand should not take significant action affecting competiveness-at-risk industries unless and until other countries do likewise. They should be largely exempted from any tax/subsidy or ETS regime.

4.14 In addition, we recommend that:

- the cap of 90 percent of 2005 emissions should be discussed with affected industries to establish whether or not they are operating at world's best practice and have realistic prospects of reducing emissions at reasonable cost

- free allocation of credits should not be phased out in a linear fashion regardless of what other countries are doing, but should be reduced as trading competitors take similar action in pricing carbon emissions, and

- there needs to be equal treatment of new entrants so that incumbents do not have a privileged position.

This general approach should be taken to agricultural industries as well as industries such as steel, cement and aluminium. The proposed safety valve at a low level would also limit risks to competitiveness-at-risk industries.

Need for an independent allocation agency

4.15 As explained earlier, a price on carbon imposed via an ETS is tantamount to a tax. Countries like New Zealand have designed constitutional arrangements for curbing the abuse of the state's power to tax (or exempt from tax). The principle of non-

delegation of parliament's power to tax, the position of an independent Commissioner of Inland Revenue, carefully formulated tax principles and rules, and provisions for taxpayer rights of appeal to the courts are all established practice.

4.16 In contrast, the Bill would give a minister the power to determine the allocation of free ETS units and many other discretionary powers. This opens the way to arbitrariness, anti-competitive and other rent-seeking lobbying, favouritism, and other forms of corruption. The scope for this is apparent when it is recognised that there will be a need for flexibility over the allocation of units, and the government has already made it clear that it is open to discussion on issues such as start dates, the rate of phase-out and the end point of free allocations.

4.17 The interim Garnaut report in Australia has recognised these problems. It states that, for reasons of "good governance as well as fiscal prudence", decisions on who should get assistance should be undertaken by an independent authority. There has been talk of an institution with statutory independence similar to that of the Reserve Bank of Australia. We strongly concur with Garnaut's view. The government appears to have given no thought to this issue. A considerable amount of work would be needed to establish the rules such an agency should follow (similar to the rules in the tax code), the basis of its independence, the issue of appeals and many other matters. Very large sums of money may be at stake in decisions on allocations. This is another reason for not proceeding with the Bill at this stage until proposals have been put forward and exposed to scrutiny by interested parties.

Treatment of forestry

4.18 The current problems in forestry arise from the government's decision to use carbon absorption in trees to shelter emitting activities without compensating foresters. This conflicted with what its officials were telling international forums and what the industry understood to be government plans. It reduced the incentive to invest in forests and the problem was exacerbated when the government foreshadowed an intention to stop foresters from converting land to dairying or other uses. These actions infringed established property rights and are one cause

of the large-scale deforestation of recent years. (High world prices for dairy products are an unrelated factor, but an important one.)

4.19 The measures in the Bill go some way to rectifying this problem in respect of post-1990 forests. However, there is still a real problem with its proposals in respect of other forests. The owners of land under pre-1990 forests who opt not to replant, but instead switch the land to another use such as dairying, will be liable for the emissions involved. This amounts to a substantial penalty on such action and reduces land use flexibility. Land-based industries are an important part of the New Zealand economy. It is vital that they are able to continue to respond flexibly to changes in world prices, technological developments and competition for resources. Any attempt to erect a barrier to exit from forestry will deter people getting into it in the first place, which is also undesirable on environmental grounds. Moreover, what are in effect retrospective tax changes are bad policy, affecting domestic and international investors in New Zealand and Maori forest owners, and would send poor signals about New Zealand's investment climate.

4.20 The proposal to allocate 55 million tonnes of free carbon credits is fraught with problems and would only be a partial solution. The optimal policy would be to tax agricultural emissions (subject to the competitive-at-risk concern) and not impose any land use restrictions on forestry land. Any conversions of forestry land to dairying or other uses would then be economically sensible as long as the level of tax (or ETS unit price) was appropriate.

Thermal generation

4.21 The whole point of a broad-based carbon tax or ETS regime is to reduce emissions at least economic cost. This purpose is defeated by the addition of ad hoc, narrowly based measures. The analysis in section 3 found that no case had been made in the Bill for the proposed moratorium on thermal generation, yet it has the potential to impose significant costs. It could inhibit the discovery of cheap supplies of energy and have serious adverse effects on gas exploration and development. In addition, by penalising the opportunities for thermal generation relative to renewables, it is likely to force up electricity prices to households and industry.

4.22 For New Zealand to achieve more rapid rates of economic growth and close income gaps with countries like Australia, substantial increases in electricity generating capacity will be needed. These will not be able to be met from renewable resources alone. New Zealand has ample supplies of coal and good prospects for further gas discoveries. Many countries, including Australia and China, have no intention of denying themselves the benefit of such resources. If New Zealand were to do so it would reduce incentives for New Zealand gas and coal producers to undertake research and invest in cleaner technologies. Given the precarious supply/demand balance in the electricity market, the proposed moratorium would also put at risk the security of electricity supply, given the fluctuations in availability of wind power in particular. For all these reasons we consider the proposed ban to be a major mistake and recommend that it be abandoned.

Adaptation

4.23 We consider that a strong case can be made that New Zealand's policy response to the climate change problem should focus a lot more on adaptation, flexibility and economic growth and a lot less on costly and likely futile mitigation. We consider that there is much that New Zealand could and should be doing to facilitate adaptation. Some measures, such as those that would make it easier to build roads and introduce congestion pricing, and reduce impediments to investment in hydro projects, would also be a 'no-regrets' way of reducing emissions.[2] To facilitate adaptation, New Zealand governments should generally resist pressures to provide relief to those who invest in flood- or storm-prone areas. Above all, New Zealand should be doing much more to improve the prospects for economic growth through better policies and institutions.

5. Recommendations

5.1 This Bill, which reflects the government's goal of achieving carbon neutrality, has consequences for the economy and the welfare of New Zealanders that are more momentous than any bill that has come before the current or recent parliaments. Its impact could be far greater than the Think Big programme which did so much

[2] Indur Goklany, 'What to do about Climate Change', *Policy Analysis*, Cato Institute, 5 February 2008, makes a strong and detailed case for 'focused adaptation'.

economic damage. Parliament should not embark on such a course without exhaustive analysis of the issues and well-informed public support. Both are currently lacking. The official material supporting the Bill is lightweight and compares poorly with the material being produced in Australia. The government has been telling the public that the economic impact of its programme will be minimal, which is patently false. Given the present state of technology, measures to achieve carbon neutrality will hit household budgets hard. In the absence of public understanding and buy-in, no such programme is likely to be politically sustainable, as the fate of previous badly managed initiatives (such as the proposed methane levy and carbon tax) has demonstrated. Such outcomes do nothing for either business and investment confidence or the environment.

5.2 We think parliament should draw back from enacting hasty legislation. As it stands the Bill leaves far too many questions unanswered and too much detail to be determined outside the scrutiny of parliament. It now makes more sense for New Zealand to coordinate its approach with Australia, having regard also to the actions of other countries. Despite signing the Kyoto Protocol, the Australian government is proceeding in a careful and transparent way on the basis of independent advice and thorough analysis by the Australian Treasury, and it is clearly determined to protect Australia's economic interests. A comparable process should be followed here.

5.3 Accordingly we recommend as follows:

- ***The select committee should take whatever time is necessary to ensure a high quality outcome***. It should insist on the regulatory impact analysis being redone and exposed to scrutiny, with a clear demonstration that the benefits to New Zealanders of actions proposed exceed the costs. More work needs to be done on institutional arrangements (such as an independent administering authority), and directions taken in Australia (which will not be known until later in the year) need to inform New Zealand's approach.

- ***New Zealand should not make significant moves in advance of other countries*** The government's desire to 'lead the world' is irresponsible and

futile. It is clear that the Kyoto Protocol is effectively dead (few countries will meet their obligations under it), and the recent Bali conference gave no reason to believe that post-2012 agreements would be of the Kyoto form and more stringent in nature, as the government assumes.

- ***The Bill must be modified to provide greater price certainty***. We concur with the weight of expert opinion that a tax/subsidy regime is preferable to an ETS. We suggest a rate of tax in the $5-10 range per tonne of CO_2e, at least for the first commitment period. Failing that, there should be a cap on the domestic price for New Zealand ETS units. The Bill should also be amended to permit the banking and borrowing of units.

- ***Competitive-at-risk activities must be given greater protection***. The 90 percent baseline should be discussed with affected interests and New Zealand should not set a unilateral target of 2025 for the elimination of assistance to exposed activities. Rather, any reductions in assistance should be related to the development of a more level playing field internationally, and the scheme should not favour incumbents over new entrants.

- ***An independent agency to administer the ETS should be established***. Parliament should not delegate to a minister the power to make decisions concerning the free allocation of units (or, under a tax system, the exemptions for at-risk activities).

- ***There should be no retrospective taxation and no new restrictions on changes in land use***. Owners of pre-1990 forests should be entitled to their property rights in carbon sinks.

- ***The moratorium on thermal generation should be deleted from the Bill***. It has no credible public interest justification given the proposed ETS or a carbon tax. However, it is likely to have potentially major costs and adverse unintended consequences.

- ***The Bill should not provide for a unilateral ETS.*** The provision for the unilateral continuation of the scheme in the absence of any international agreement beyond 2012 should be deleted from the Bill.

Annex I

A Cool Look at Global Warming

The Economics and Politics of Climate Change

NIGEL LAWSON

THE SIR RONALD TROTTER LECTURE

2007

NEW ZEALAND BUSINESS ROUNDTABLE

Over the past half-century we have become used to planetary scares of one kind or another.

But the latest such scare – global warming – has engaged the political and opinion-forming classes to a greater extent than anything since, a little over 200 years ago, Malthus warned that, unless radical measures were taken to limit population growth, the world would run up against the limits of subsistence, leading inevitably to war, pestilence and famine.

This is partly perhaps because, at least in the richer countries of the world, we have rightly become more concerned with environmental issues. But that is no excuse for abandoning reason.

It is time to take a cool look at global warming.

By way of preamble, I readily admit that I am not a scientist. But nor are those who have to take the key decisions about this scientists, let alone climatologists. They are responsible politicians who, having listened to the opinions of the scientists, have to reach the best decisions they can in the light of the expert evidence available to them – just as I did, for example, in a not wholly unrelated field, when I was Energy Secretary in Margaret Thatcher's first government in the early 1980s.

More important still, the science is only part of the story. Even if the climate scientists can tell us what is happening and why – not that they all agree about this, anyway – they cannot tell us what governments should be doing about it. For that we also need an understanding of the economics, of what is the most cost-effective way of tackling any problem that may arise. And we also need an understanding of the politics, of what measures are politically realistic, a particularly tricky matter given the inescapably global nature of the issue.

It is frequently claimed, by those who wish to stifle discussion, that the science of global warming is 'settled'. Even if it were, for the reasons I have already indicated – political, but above all economic – that would not be the end of the matter. But in fact, while some of the science is settled, there is much that is not.

So let's start with the facts.

It is customary to focus on three of them.

The first is that, over the past hundred years, the earth has become slightly warmer. To be precise, there appears to have been a rise in global mean annual temperature of some 0.7ºcentigrade.

The second is that, over the past hundred years, the amount of carbon dioxide in the earth's atmosphere has risen sharply, by more than a third, largely as a result

of carbon-based industrialisation – in particular, electricity generated in coal- and oil-fired power stations and motorised transport.

And the third fact (and this is the settled science) is that carbon dioxide is one of a number of so-called greenhouse gases – of which far and away the most important is water vapour – which in effect trap some of the heat we receive from the sun and thus keep the planet warmer than it would otherwise be.

So is it not clear that the warming we have seen over the past hundred years must be due to the massive rise in human-induced carbon dioxide emissions, and that unless we substantially decarbonise the world economy the warming will continue, bringing doom and disaster in its wake?

No: it is not at all clear.

In the first place, while atmospheric carbon dioxide concentrations have grown steadily over the past hundred years, and indeed continue to grow briskly, the warming has occurred in fits and starts. To be precise, it has been confined entirely to two periods: from 1915 to 1940 and from 1975 to 1998. Between 1940 and 1975 there was a slight cooling; and so far this century (and contrary to all predictions) there has been no trend one way or the other.

So clearly carbon dioxide is only part of the global temperature story: it is very far from being the whole story.

And this is borne out by the longer-term historical record. It is well established, for example, that a thousand years ago, well before the onset of industrialisation, there was what has become known as the mediaeval warm period, when temperatures were probably at least as high as, if not higher, than they are today. Going back even further, during the Roman Empire, agricultural records suggest that it was probably even warmer.

So we are left with a double uncertainty.

First, while we know that, other things being equal, rising atmospheric concentrations of carbon dioxide will warm the planet, we have no true understanding of how much they will do so.

And second, we know that in fact other things are very far from equal. So even if we did know the answer to the first question, we would still be unable to predict what the world's temperature will be a hundred years from now.

These uncertainties clearly have a profound bearing on the economics of global warming, and thus on the policies it is sensible to pursue.

For while we can do our best to estimate the cost of substantially decarbonising the world economy, we have no idea of what benefit that will bring in terms of a lower mean global temperature than would otherwise be the case.

Not that it is clear, even if we could predict the temperature of the planet a hundred years from now (which we can't), how much economic damage a given rise in temperature would do.

It was to advise governments on these issues that the Intergovernmental Panel on Climate Change (or IPCC) was set up in 1988, under the auspices of the United Nations.

The IPCC concludes, on the basis of to say the least very slender evidence, that "most" – note, not all – of the warming that occurred during the last quarter of the twentieth century was very likely due to the growth of atmospheric carbon dioxide concentrations.

But even if – and there is clearly a case for erring on the side of caution – this is so, and even if, as the IPCC blithely assumes, the natural forces that affect the world's temperature in often unpredictable ways can be safely ignored, the policy conclusions that are widely believed to follow from this are very suspect indeed.

To get a line on how much global warming there is likely to be over the next hundred years, and what the practical impact of the consequent rise in global temperatures might be, the IPCC adds to the assumed nature of the link between atmospheric concentrations of carbon dioxide and temperature, estimates of how much carbon dioxide emissions are likely in fact to increase over the next hundred years, based on a number of different economic development scenarios; and then assesses the likely consequences of the resulting rise in world temperature.

All the IPCC's scenarios, incidentally, assume that, over the present century, faster economic growth will mean that living standards in the developing world, in the conventional sense of gross domestic product (GDP) per head of population, will to a very considerable extent catch up with living standards in the developed world.

In other words, by 2100 poverty really has become history. If nothing else, this should cheer up those who have been told that disaster stares us in the face if we do not take urgent action to save the planet.

It is only fair to add that what I have just spelled out is what emerges from the IPCC's scenarios before deducting the projected costs to the economy of twenty-first century global warming. I will of course come to that; and it will be seen that it does not fundamentally change the picture. It is true that the IPCC's projections of twenty-first century economic growth may prove to have been too optimistic;

but in that case, given the assumed growth–emissions–temperature nexus, there will be less global warming, too.

As it is, the temperature projections it does come up with in its fourth and latest report range from a rise in the global average temperature by the year 2100 of 1.8ºC for its lowest emissions scenario to one of 4ºC for its highest emissions scenario, with a mean increase of 3ºC. It describes these as its “best estimates”.

At this point, it might be a good idea to leave the rarefied world of the IPCC for a moment and take a brief reality check.

Is it really plausible that there is an ideal average world temperature, which by some happy chance has recently been visited on us, from which small departures in either direction would spell disaster? Moreover, while a sudden change would indeed be disruptive, what is at issue here is the prospect of a very gradual change over a hundred years and more.

In any case, average world temperature is simply a statistical artefact. The actual experienced temperature varies enormously in different parts of the globe; and people, whose greatest quality is their adaptability, have successfully colonised most of it. Two countries at different ends of the earth, both of which are generally considered to be economic success stories, are Finland and Singapore. The average annual temperature in Helsinki is less than 5ºC, that in Singapore is in excess of 27ºC – a difference of more than 22ºC. If humans can successfully cope with that, it is not immediately apparent why they should not be able to adapt to a change of 3ºC, when they are given a hundred years in which to do so.

The IPCC seeks to assess the likely impact of projected global warming over the next hundred years in two ways. First, it looks separately at five major headings: water, ecosystems, food, coasts and health. Then it adds all these impacts together to provide an overall figure of the cost to the world of the projected warming.

This last is of course intended to be the net cost. It is clear that while warming brings costs, it also brings benefits. Given the wide geographical variation in temperatures around the world, it is obviously likely that, while in the warmer regions the costs could be expected to exceed the benefits, in the colder regions the benefits might well exceed the costs. The IPCC report claims to take into account both costs and benefits, yet it devotes large amounts of space to the costs and very little to the benefits. It is difficult not to sense a lack of even-handedness, leading to a bias in the overall assessment.

But let us first take a brief look at the IPCC’s five impact headings.

The first is water. There is indeed a worldwide water problem, but it has nothing whatever to do with global warming. Indeed, scientists agree that carbon dioxide-induced warming will, if anything, tend to increase, rather than reduce, rainfall. The problem is the huge increase in the world's population, which has led to a massive increase in the demand for fresh water, without any corresponding increase in the effective supply. Thus improved water resource management, and above all the proper pricing of water, are of the first importance. But what is abundantly clear is that cutting back on carbon dioxide emissions is irrelevant.

As to ecosystems, here again it is well established that those animal species at risk of extinction are threatened far more by other factors, such as deforestation, than they are by warming, which is, at most, of marginal significance.

The IPCC's third heading, food, is clearly of the first importance to people. But what it has to say here has not been sufficiently reported. I quote, "Globally, the potential for food production is projected to increase with increases in local average temperature over a range of 1–3ºC, but above that it is projected to decrease". It will be recalled that the mean temperature increase suggested by the IPCC's various scenarios for the end of the present century is some 3ºC.

Moreover, this is an area where the scope for adaptation is particularly pronounced. It is not simply a matter of farmers being able to make better use of irrigation and fertilisers, and indeed to switch to strains or crops better suited to warmer climes, should the need arise – something, incidentally, that will happen autonomously, without any need for government intervention. It is also because we are in the early stages of a revolution in agricultural technology, through the development of bio-engineering and genetic modification.

The IPCC's fourth impact category is coasts, where it is concerned about sea level rise, brought about by a combination of ocean warming expanding the volume of water and some melting of the Greenland and West Antarctic ice sheets, causing coastal flooding in low-lying areas. Sea levels have, in fact, been rising very gradually for as long as records exist, and there is little sign of any acceleration so far – indeed, if anything, the reverse is the case.

The fifth and last of the IPCC's impact categories is health. There are, of course, very serious health problems of many kinds throughout much of the developing world, which need to be tackled in their own right – global warming or no global warming – much more urgently than they are being at the present time. There is no medical mystery about how to do so.

But the connection with global warming is, if anything, the reverse of what the IPCC assumes. The major cause of ill health, and the deaths it brings, in the developing world is poverty. Faster economic growth means less poverty but – according to the human-induced carbon dioxide warming theory, incorporated in the IPCC's scenarios – a warmer world.

Warmer but richer is in fact healthier than colder but poorer.

What, then, of the IPCC's overall figure for the likely net cost of a warmer world, on the assumption that no measures are taken to curb carbon dioxide emissions, and after carefully examining all the likely adverse consequences, and rather less carefully the benefits?

It will be recalled that the report's best estimates of the likely warming of the planet over the next hundred years range from a rise of 1.8ºC to one of 4ºC, depending on the emissions scenario chosen. The report then takes the upper end of the range – a 4ºC warming – and claims that, overall, this would mean a loss, by the end of the twenty-first century, of anything between 1 percent and 5 percent of global GDP. It adds that this is the global average figure, and that developing countries will experience larger percentage losses.

Given that this derives from the top end of the range, and given that the IPCC insists that all its scenarios are of equal validity, it is clear that, on the basis of the IPCC's own methodology, there may well be no net cost at all from global warming over the next hundred years: it may even be beneficial. But let us err on the side of caution, and take not only the top end of the IPCC's warming range – a rise of 4ºC over the next hundred years – but also the top end of its projection of the net damages, a loss of 5 percent of world GDP.

At this point we need to do some simple arithmetic. Heeding the IPCC's very proper warning that the loss will be greater than 5 percent for the developing countries (and thus less than 5 percent for the developed world), I shall make the calculations on the assumptions of a 10 percent loss of GDP in the developing world and a 3 percent loss in the developed world.

Again, to err on the side of caution, let us look at the gloomiest of the IPCC's economic development scenarios, according to which living standards (measured in the conventional way as gross domestic product per head) would rise, in the absence of global warming, by 1 percent a year in the developed world, and by 2.3 percent a year in the developing world. It can readily be calculated – using, to repeat, a cost of global warming of 3 percent of GDP in the developed world and as much as 10 percent in the developing world – that the disaster facing the planet is that our great-grandchildren in the developed world would, in a hundred years time, be only 2.6 times as well off as we are today, instead of 2.7 times; and that their contemporaries in the developing world would be 'only' 8.5 times as well off as people in the developing world are today, instead of 9.5 times as well off.

And this, remember, is the IPCC's very worst case – and one based, moreover, as they all are, on a ludicrously pessimistic assumption of people's ability to adapt to gradual warming, should it occur.

Indeed, the single most serious flaw in the IPCC's analysis of the likely impact of global warming is its grudging and inadequate treatment of adaptation, which leads to a systematic exaggeration of the putative cost of global warming – if, indeed, over the next hundred years there is any net cost at all.

The IPCC prefaces its assessment with the statement that "The magnitude and timing of impacts will vary with the amount and timing of climate change and, in some cases, the capacity to adapt". But adaptation will always occur. The capacity to adapt is arguably the most fundamental characteristic of humans. We have adapted to different temperatures over the millennia we have been around, and we adapt today to widely different temperatures around the world. And that adaptive capacity is increasing all the time with the development of technology.

Yet the absurd concept of static 'adaptive capacity' is central to the IPCC's analysis. Thus in its review of the dangers in different parts of the world, it explicitly acknowledges that, in the case of Australia and New Zealand, these will be limited by the fact that "The region has substantial adaptive capacity due to well-developed economies and scientific and technical capabilities". Presumably, the same applies to Europe and North America, although, curiously, the IPCC does not say so. But it does express concern about the effect of projected warming on the poorer regions of the world, particularly in Africa and parts of Asia, because of their "low adaptive capacity".

This somewhat patronising judgment seems ill-founded for three reasons. First, as we have seen, on the IPCC's own economic growth projections, on which its temperature projections rest, the poorer regions are, for the most part, not going to be poor in a hundred years' time. Second, for those parts that do remain poor, overseas aid programmes would clearly be focused on improving their adaptive capacity, should the need arise. And third, there will almost certainly be substantial technological development over the next hundred years, which will significantly enhance adaptive capacity worldwide, in many cases far beyond what it is at the present time.

In short, the IPCC's analysis and conclusions are seriously undermined by the systematic underestimate of the benefits of adaptation, deriving both from its assumption that 'adaptive capacity' is severely and permanently constrained by economic underdevelopment in the developing world, and its assumption that, for the world as a whole, it is constrained by the limits of existing technology; that is, the assumption that there will be no further technological development over the next hundred years. This last is clearly absurd in the important case of agriculture and food production, and is implausible in general. As a result, the IPCC's overall cost assessment inevitably suffers from a pronounced upward bias.

It is true that some forms of adaptation, such as the creation or improvement of sea and flood defences, would, if and when they became necessary, require

government intervention. The IPCC, needless to say, adopts its characteristically downbeat approach to this, declaring that “Adaptation for coastal regions will be more challenging in developing countries than developed countries, due to constraints on adaptive capacity”.
It must be said that the challenge ought to be a manageable one: the Dutch, after all, managed it pretty effectively even with the technology of the sixteenth century, and technology has scarcely stood still over the past half-millennium. But this might well be a suitable focus for overseas aid, should the need arise.

In short, even if the conventional scientific wisdom is correct, there remains the fundamental question of what is the most cost-effective way of addressing the likely consequences of global warming. Is it to adapt to them, as humans have adapted throughout the ages and throughout the world to the vagaries of the climate, or is it to attempt to prevent them, even if this means radically transforming the global economy at very considerable cost?

The answer, I believe, is clear.

The alarmists reply that global warming presents some threats to the planet that are so dire that adaptation is not possible. But there is nothing in the current state of climate science to warrant this.

Let’s take a look at the three most frequently mentioned catastrophic consequences.

First, in the light of Katrina, hurricanes. The facts are that, of the 10 most severe Atlantic hurricanes since 1900, five occurred in the first half of the period and five in the second half. Seven out of the 10 occurred before 1975, that is to say, before the period when the bulk of the modest twentieth-century global warming began. The worst of all, by far, was the Great Miami Hurricane of 1926. In the eyes of the insurance industry, there has of course been a significant rise in hurricane damage over the years. But that is simply because the huge rise in both population and property values in the affected areas has inevitably caused a substantial increase in damage costs for any given tropical storm.

Next, the melting of the polar ice sheets, and its alleged effect on sea levels. Clearly, the melting of floating polar ice cannot cause any rise in sea levels – just as the melting of ice cubes in your glass of water cannot cause the water to overflow the glass. The issue is solely about the land-borne ice at the poles. And the overwhelming mass of this, and thus of most significance for global sea levels in this context, is not over Greenland in the north but over the vast continent of Antarctica in the south.

Here it is perfectly true that the West Antarctic ice sheet, covering the peninsula that points its finger towards the southern tip of South America, is showing evidence of melting and glacier retreat. But the West Antarctic peninsula

accounts for only around 10 percent of Antarctic land-borne ice, and has a different climate from the rest of Antarctica. In most of the other 90 percent of the continent, according to the most recent research, the ice sheet appears to be growing.

Finally, in Europe in particular, there is a fear of a reversal of the Gulf Stream and thus – paradoxically – the onset of very much colder weather. Although there is ample evidence of fluctuations in the strength of the Gulf Stream from time to time, research has shown no sign of any secular slowdown over the past decade. Nor is there any reason to suppose that there will be even if there is further global warming over the coming decades, since the Gulf Stream is largely a surface current and thus a wind-driven phenomenon.

It is clear, therefore, that even after looking carefully at the worst nightmare scenarios the alarmists can conjure up, there is no reason to believe that, even if the IPCC's projections of global warming over the coming century are realised, which is unlikely, there is anything to which people cannot adapt.

Moreover, to the extent that there is a problem of global warming, it is manifestly a global problem. And if the chosen policy for addressing it is to cut back on carbon dioxide emissions, the cutback clearly has to be global, too. Thus, the perspective of the developing world is of the first importance. And it is in the developing world, particularly China and India, where emissions are growing fastest. Indeed, China is very soon set to overtake the United States as the single biggest source of emissions, if it has not done so already, chiefly because its rapidly growing economy is so heavily dependent on energy-intensive manufacturing industry.

Both China and India have made their position abundantly clear; and it has to be said that it is thoroughly understandable, and reflects the perspective of most of the developing world. Their overriding priority is to continue along the path of rapid economic growth and development. Only in this way can the widespread poverty that still afflicts their people be relieved.

They observe that the industrialised countries of the Western world achieved their prosperity thanks to cheap carbon-based energy, and they believe that it is now their turn to do the same. They add that if there is now a problem of excessive carbon dioxide concentrations in the earth's atmosphere, it is the responsibility of those who overwhelmingly caused it to remedy it. At the very most, they are prepared to concede that, if and when their emissions per head of population have risen to the levels of emissions per head in the rich world, there might be the basis for an international agreement that would be fair for all. But until then, there can be no question of their agreeing to any restrictions on their emissions.

Indeed, following this year's G8 Summit in Germany, the official German news agency reported that "Chinese President Hu Jintao and Indian Prime Minister Manmohan Singh have created a new alliance to spearhead emerging economies' opposition to developed nations seeking to impose limits on their greenhouse gas emissions".

So where does this leave the prospect of an effective global agreement to prevent the further growth of carbon dioxide concentrations in the atmosphere? Not, it has to be said, in very good shape.

It is perfectly true that spokespeople for both the United States and the major developing countries are from time to time prepared to pay lip service to the idea of a global agreement on limiting emissions, provided the burden of doing so is equitably shared. But what the United States considers an equitable sharing of the burden is worlds apart from what China and India consider equitable; and there is no prospect whatever of this chasm – it is far more than a gap – being closed.

This, then, is where we are now. The Kyoto approach is dead and buried.

Admittedly, the European Union is still theoretically committed to going it alone, having agreed in principle to cut its emissions by 20 percent (below 1990 levels) by 2020. But the problem with one or more countries going it alone is not simply the heavy cost to those who do so. It is also the nugatory reduction in overall global emissions that this would lead to.

This is because the only practical way of cutting back on carbon dioxide emissions is to raise the cost of carbon-based energy, whether by taxation or by the rationing system known as emissions trading; so that energy saving becomes more attractive and non-carbon-based energy more competitive. But as energy prices in, for example, New Zealand rise, with the prospect of further rises to come, energy-intensive industries and processes would progressively decline in New Zealand and expand in countries like China, where cheap energy remained available. No doubt New Zealand could, at some cost, adjust to this, but it is difficult to see the point of it. For if carbon dioxide emissions in New Zealand (which are in any event negligible in global terms) are reduced, only to be further increased in, for example, China, there will be no net reduction in global emissions at all.

Meanwhile, the most striking feature of the so-called climate change debate is the complete disconnection between the rhetoric and the reality. Despite the posturing of politicians throughout much of the world, despite the declarations that global warming is the greatest threat facing the planet, despite the Kyoto Protocol and despite innumerable international gatherings of the great and the good, little in practice has been done and global carbon dioxide emissions continue to rise.

The reason for this, of course, is that fine words are cheap, whereas the 70 percent reduction in global carbon dioxide emissions that would be required to stabilise carbon dioxide concentrations in the earth's atmosphere would be very costly indeed.

So how much would it cost to reduce carbon dioxide emissions to the extent allegedly required? The only honest answer is that we do not know; but all the signs are that it would prove very expensive indeed. One test is to consider how high a carbon tax would need to be in order to generate the necessary change in behaviour, both on the supply side and the demand side. And it is significant that this is something that those politicians who identify global warming as the greatest threat facing the planet are conspicuously reluctant to discuss, let alone to propose.

The IPCC, in its 2007 report, suggests that "the costs and benefits of mitigation … are broadly comparable in magnitude" – although, in fact, as we have already seen, it greatly exaggerates the benefits of mitigation by its systematic undervaluation of adaptation.

But even if it were the case that the costs and benefits of mitigation are broadly comparable in magnitude, the fundamental question, when comparing the costs and the benefits – even if we accept the conventional wisdom so far as the science is concerned, and even if we assume that a global agreement is attainable, however unlikely that may seem – is this. How great a sacrifice is it either reasonable or realistic to ask the present generation, particularly the present generation in the developing world, suffering as it still does from extreme poverty, malnutrition, disease and premature death, to make in the hope of benefiting substantially better-off generations a hundred or two hundred years hence?

The answer is clear: not a lot. It is not that we don't care about future generations. It is that we *do* care about the present generation.

Nor does invocation of the so-called precautionary principle overturn this conclusion. The fact that climate science is so uncertain that we cannot be absolutely sure that there is not a catastrophe awaiting the people of the world a hundred or two hundred years hence cannot rationally be used as the basis for horrendously costly policy decisions now.

In a world of inevitably finite resources, we cannot possibly spend large sums on guarding against any and every possible eventuality in the future. Reason suggests that we concentrate on present ills, such as poverty and disease, and on future dangers, such as nuclear conflict and terrorism, where the probability appears significant – usually because the signs of their emergence are already incontrovertible. The fact that a theoretical future danger might be devastating is not enough to justify substantial expenditure of resources here and now,

particularly since there are many other such dangers wholly unconnected with global warming.

So does all this mean that we should do nothing about global warming? Not quite, although doing nothing is better than doing something stupid. But there are, in fact, some sensible things that can be done.

It clearly makes sense to press ahead with research and development in technologies that might assist the process of adaptation should that be required.

Another form of research and development that is rightly taking place at the present time, although so far only in the United States, involves what has become known as geo-engineering; that is, the technology of cooling the planet, in relatively short order, should the need become pressing. The front runner here is the idea of blasting sulphur aerosols into the stratosphere, so as to impede the sun's rays. This is not as far-fetched as it seems. It is what happens naturally when large volcanoes erupt. The most recent such occasion was the eruption of Mount Pinatubo, in the Philippines, in 1991, which led to a two-year cooling of the earth's temperature, with no adverse side effects.

More importantly, there is, of course, the need to do whatever is needed to adapt to a warmer planet, should the late twentieth-century warming, which has for the time being paused, in due course resume, as the majority of climate scientists are currently predicting. For the most part this can and will happen spontaneously and autonomously, just as humans have always adapted to the environment around them, wherever they live, without any need for government intervention. But there are some exceptional areas – what the economists call the supply of 'public goods' – where governments do need to stand ready to act. The provision of adequate sea and flood defences is the most obvious example.

Moreover, as we have seen, even though the IPCC's projected warming over the next hundred years, if it occurs, may well not be harmful overall, there would be losers in the warmer regions of the developing world. Should this seem likely to occur, I believe we have a clear moral obligation to help them.

It is true that the record of overseas aid in promoting economic development is very disappointing. But that is no argument against assistance in, for example, the building of effective sea defences. Of course it would cost money. But quite apart from our moral obligation, it is only a minuscule fraction of what it would cost to attempt, by substantially cutting back on carbon dioxide emissions, to control the global temperature.

What is important is that the practical measures I have outlined tonight represent the sum total of what we should be doing. It has to be said that this is not the easiest of messages to get across – not least because the issues surrounding

global warming are so often discussed in terms of quasi-religious belief rather than reason.

Indeed, the more one examines the current global warming orthodoxy, the more it resembles a Da Vinci Code of environmentalism. It is a great story, and a phenomenal best seller. It contains a grain of truth – and a mountain of nonsense. And that nonsense could be very damaging indeed. We appear to have entered a new age of unreason, which threatens to be as economically harmful as it is profoundly disquieting. It is from this, above all, that we really do need to save the planet.

Annex II

NEW ZEALAND BusinessROUNDTABLE
PROMOTING POLICIES FOR A BETTER NEW ZEALAND

PEPANZ

EMBARGOED UNTIL 11.30 AM TUESDAY 5 FEBRUARY 2008

Carbon Neutrality Goals Costly and Unattainable

Taken alongside the government's goals for economic growth, its goal of achieving carbon neutrality

- could cost New Zealand households around $19,000 a year in current dollars by 2025

- but would leave the country further away from carbon neutrality than it is today.

These are key conclusions of the attached report by Dr Adolf Stroombergen of Infometrics Limited, prepared for the New Zealand Business Roundtable and the Petroleum Exploration and Production Association of New Zealand. The government's Emissions Trading Group engaged Infometrics last year to model effects of the government's proposed emissions trading scheme.

The period to 2025 was chosen for the study because it was used by the government and because it represents a 'milestone' on the path to the government's goal of carbon neutrality by 2050.

The study analyses a target of reducing New Zealand emissions to 1990 levels by 2025. This is a very conservative target in relation to carbon neutrality: at the recent Bali meeting, New Zealand supported a proposal by the Intergovernmental Panel on Climate Change to cut emissions by 25-40% below 1990 levels by 2020.

The study proceeds by modelling three scenarios.

First, a 'high growth' Business as Usual (BAU) scenario of 4.5-5% GDP growth is modelled to 2025. This scenario (Scenario A) serves as a benchmark to measure the economic costs of emissions reductions policies. A key premise of the study is that the impact of such policies does not put in jeopardy the government's priority goal of achieving sustained annual real GDP growth of 4% or more (necessary if New Zealand is to get back into the top half of the OECD per capita income rankings).

Scenario B models the impact of imposing a carbon price on the economy (through an emissions tax or trading scheme). Ideally, the question posed would be what price is

necessary to achieve 1990 emissions levels by 2025. However, it turns out that the necessary price would be too high to model realistically. Instead, the question asked was what impact an international price of $100/tonne CO_2e, supplemented by measures such as the quasi-moratorium on new fossil-fuelled thermal generation which would bring the effective (or 'shadow') domestic price up to $300/tonne, would have on emissions relative to 1990 levels.

Scenario B assumes that all economic resources would be reallocated to other activities over time in response to higher carbon prices but does not take account of the effects of investment uncertainty and transitional costs. Such effects are allowed for in Scenario C which assumes some fall in investment, employment and productivity.

The analysis shows that even with the very high carbon prices assumed, which would lead to a doubling of electricity prices in real terms and a 50% increase in petrol prices, New Zealand would be further away from its carbon neutrality goal than it is today, rather than on a path to achieving it. Moreover, in Scenario C private consumption would fall by 14% relative to BAU, which is about $7,000 per person or $19,000 per household.

In addition, the impact on numerous industries would be devastating – reductions in output of the order of 30-40% are reported in the case of sheep and dairy farming – and major industrial firms could face complete closure.

Commenting on the study, Business Roundtable executive director Roger Kerr and PEPANZ executive officer John Pfahlert said it called into question the consistency of the government's twin goals of faster economic growth and carbon neutrality.

"Businesses and households have to take them seriously – they are surely not intended to be a fraud on the electorate.

"Yet the government is not on track to meet its growth target and it is clear from the study that the economic impact of carbon neutrality policies would be far greater than the government has maintained.

"The reality is that there are currently no low-cost ways for New Zealand to reduce emissions significantly. The business community takes the threat of global warming seriously and is not generally opposed to action to put a low initial price on carbon. However, rhetoric about 'carbon neutrality' and 'leading the world' is fanciful and irresponsible and no basis for sound policy, as the study demonstrates."

5 February 2008

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Annex III

Analysis of the Bill's Regulatory Impact Statements

Overview

The Bill contains two Regulatory Impact Statements (RISs) -- for the emissions trading scheme and the proposed limits to new thermal electricity generation capacity.

Neither makes a case that any benefits to the community from the proposed measures are likely to exceed the costs. Since governments should not regulate unless it is necessary to do so in the public interest, the implication is that the government should not regulate.

The RIS for the Emissions Trading Scheme

Problem definition

The RIS proposes that effective international action on climate change "is crucial" for New Zealanders' well-being. It considers that "a failure to act sustainably and responsibly" could reduce New Zealand's international credibility and influence. It asserts that a failure to act now "would see the costs for New Zealand rise over the long term".

The RIS makes no comment on the probability of effective international action and gives no reason why New Zealand's international credibility and influence requires it to act unilaterally, independently of actions by other countries.[3] Nor, given that mitigation by New Zealand can make no meaningful difference to global emissions and cannot be expected to influence the decisions of much larger countries, does it explain why the costs for New Zealand rise over the long term if New Zealand just moves in line with other countries, such as Australia.

The RIS further explains that New Zealand's emissions on a business-as-usual (BAU) basis, but excluding deforestation, are projected to be 30 percent above 1990 levels by 2010 and that net emissions in 2023-2027 will be over 60 percent higher than during 2008-2012. It reminds readers (indirectly) that, having ratified the Kyoto Protocol, the government has realised that it is committed to purchase units on the international market out of general tax revenues. It considers that future international agreements will be reached and that they will become “more stringent” implying even higher transfer costs in the future.

The RIS does not acknowledge the validity of reservations (see for example, Nigel Lawson’s lecture in Annex I) about the science, the likelihood of effective international action, and the necessity for New Zealand to act unilaterally.

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[3] Section 146 of clause 43 in Part I of the Bill provides for the government to be able to continue the ETS even if there is no international agreement post-2012.

Statement of policy objective

The RIS states that the government's objective is to reduce net emissions below BAU levels and to comply with its international obligations, including its Kyoto Protocol obligations, "while maintaining economic flexibility, equity, and environmental integrity at least cost in the long term". By making the objective unilateral, it appears to exclude the option of moving in conjunction with other countries. It also excludes consideration of alternative approaches such as those of Canada and the United States.

The objective does not require that any reduction in net emissions should produce benefits for New Zealanders that exceed the costs.

The stated objective is delinked from the issue of protecting New Zealand's international credibility and influence. The focus on net emissions rather than gross emissions is curious in this respect given the international focus on reducing gross emissions. For example, the objective appears to preclude a focus on lowering the path for gross emissions by a simple tax/subsidy regime as a means of adequately responding to international pressures and expectations. The emphasis on net emissions may reflect a myopic focus on reducing the fiscal costs of the Kyoto liability rather than on the question of overall costs and benefits for New Zealanders.

In short, the stated objective: is so narrow as to preclude consideration of relevant national interest alternatives; is not directly related to the problem of New Zealand's international credibility and influence; and fails to require a balancing of national interest benefits and costs.

Identification of alternatives

The status quo (BAU) is ruled out by the chosen objective. The RIS also asserted that it was "not a sensible option" because of the fiscal cost and firms would have little incentive to reduce emissions. This begs the question of what, if anything, will replace the Kyoto Protocol beyond 2012.

The option of resolving the "international credibility and influence" problem through means other than Kyoto ratification was not identified.

The RIS considers the following generic options for reducing emissions:

- regulation to reduce emissions
- information and promotion to change behaviour
- paying firms to reduce emissions, and
- carbon taxes versus emissions trading.

The government's approach is to utilise the first two approaches, reject the third and prefer emissions trading to carbon taxes.

The general thrust of the discussion assumes that there is a functioning international market for carbon. The RIS thereby favours an ETS for New Zealand on the grounds

that the New Zealand price will better track the world price than a New Zealand tax whose rate would have to be changed every time the world price changed.

The point that a tax would provide greater price certainty to emitters (it should read 'investors') is acknowledged, but given little weight. The RIS focuses instead on the point that an ETS would give New Zealanders greater certainty about the fiscal cost of the Kyoto liability. Why they might prefer this to greater certainty about the competitiveness of New Zealand firms and the preservation of jobs is not considered. The impression created is that the analysis is being driven by political or fiscal considerations rather than by a national interest analysis. The RIS argues that if the international approach is to trade permits, a permit regime for New Zealand might be logical. However, the Productivity Commission did not find this argument compelling. A domestic tax/subsidy regime can be interfaced with an international permit regime.

The RIS contains no discussion of whether each measure it is discussing produces benefits to New Zealanders greater than the costs in relation to the goal of protecting New Zealand's international credibility and influence. Again this creates the impression that the analysis is not related to the national interest.

The preferred option (the ETS)

The preferred option is an ETS with no cap on the price of carbon. It involves transitional grand-parenting of units on the grounds of "equity". These allocations will not be a principled payment of compensation for losses caused by takings of property rights. To the contrary, the cap of a 90 percent allocation based on 2005 emissions implies that the average entry-level tax will be the cost of buying units to cover 10 percent of base period emissions. Even if the allocation were 100 percent initially, a firm could still incur a major loss in the value of sunk investments because of the future loss of competitiveness. Nor will such allocations necessarily reflect the need to encourage continuing investment in value-added processing activities in New Zealand. In particular, they may discriminate against new entrants. Another concern is that these allocations would be under ministerial control rather than the control of an independent agency.

The primacy of fiscal considerations over New Zealanders' welfare is further illustrated by the attitude to competitive-at-risk enterprises. The intention is to expose them fully to the price for carbon by 2025, albeit with some acknowledgement of the need to review this timetable in the light of international developments. This provides firms in these industries with a much more negative signal than competing firms in other countries are receiving from their governments. The interim Garnaut report, for example, does not contemplate any such timetable.

The preferred option also imposes heavy duties and liabilities on firms for assessing and reporting on their emissions levels and complying with emissions requirements. Given the degree of uncertainty about emissions in many activities and the likely politicisation of measurement issues, this is a further disincentive to invest in New Zealand.

The RIS explains that forestry is a priority for action as reducing deforestation is likely to be one of the lower cost abatement options through to 2012. It estimates that the costs of the Kyoto liability could rise by $180-600 million for each year that deforestation of pre-1990 forests is untaxed. The RIS does not consider the obvious option of

withdrawing the proposed tax. After all, it is effectively a retrospective tax to be imposed without landowners' consent.

Retrospective tax proposals send a chilling signal to all those contemplating investments in New Zealand. The RIS does not address the option of reducing the incentive to cut down and not replace 1990 forests by restoring private property rights.

In general there is an anti-business bias in these measures. For example, the policy is keen to tax energy, but not households. The RIS states that the government is "particularly concerned" to alleviate the effects of electricity price increases on households "and is considering compensation outside the ETS". This statement appears to concede that higher energy prices are not in the interests of households, begging the question of whose interests they are therefore serving.

Another concern is the absence of any recognition of the desirability of devoting the revenues from sale of units and from greater profits from SOE electricity companies to reducing distorting tax rates.

Net benefits of the preferred option

The RIS does not establish, or even claim, net benefits for the community from the preferred option.

There should be some benefits in the form of a reduced Kyoto liability during the 2008-2012. It should have been possible to provide a quantified estimate of this gain, but the RIS did not do so. Presumably they are expected to be minor.

The RIS argues that the costs of the proposed measures will be minor during the 2008-2012 period due to the limited effective level of tax that is proposed. However, investors will be looking further ahead to the signals the Bill is giving about the environment during the life of a long-term project. As explained above, these signals are extremely negative.

The RIS for the thermal generation moratorium

Problem definition

The RIS asserts that a new thermal station would "jeopardise public confidence in the climate change policy". It does not elaborate. It does not provide evidence of symptoms, let alone move from symptoms to causes. No evidence is provided that this is a real problem. No reason is given why, if it is a real problem, it is a bigger problem than other threats to public confidence such as insecurity in electricity supplies or the desirability of finding a replacement for the Maui gas field.

The RIS's bald and superficial claim is effectively that the ETS arrangement would not enjoy public confidence on its own. After all, if it did, this proposal would not be necessary. An efficient ETS scheme would permit investment in baseload thermal plants where the benefits to New Zealanders exceeded the costs. By doing so, it would preserve an incentive to explore for cheaper gas supplies.

In any case, public confidence in climate change policies could also be reduced if consumers feel that they are paying too much for power that is too unreliable. The RIS acknowledges a potential risk to system security and explains that the provision to allow investment for this reason is a response to it.

Statements of the problem should aim to identify problems faced by New Zealanders, not problems faced by politicians. If New Zealanders lack confidence in a government policy, why would that be their problem rather than the government's? To impose costs on New Zealanders for no benefits to them makes no sense.

The RIS's statement of the problem is entirely unconvincing.

Statement of policy objective

The stated policy objective is to identify a mechanism to prohibit the construction of baseload fossil-fueled thermal plant over the next 10 years.

This statement would be impermissible in a competent RIS on the grounds that its sole purpose appears to be to pre-justify the preferred option.

Identification of alternatives

The stated objective rules out the status quo since that option would (sensibly) allow cheap new gas supplies to be used to generate electricity.

The option of prohibiting generation for baseload purposes (once capacity is installed) is ruled out on the grounds that an ex ante moratorium is more certain.

Net benefits of the preferred option

The RIS does not establish, or even claim, net benefits for the community from the preferred option.

Arguably the most unsatisfactory part of this RIS is its adequacy statement. It does not report that the Ministry of Economic Development's Regulatory Impact Analysis Unit considers the RIS to be inadequate. Instead it reports that the Unit thought the RIS's "analysis of the design and implementation of the proposed moratorium was adequate". Adequate for what purpose? This calls into question the value of the Unit.