
**SUBMISSION ON
"DEVELOPING A STRATEGY TO REDUCE CO₂ EMISSIONS:
A SCOPING PAPER"**

- Scientific findings on the 'greenhouse' hypothesis are much less certain than implied in the paper prepared by officials. There is no agreement among scientists as to the existence or potential severity of the hypothesized effect. These uncertainties, outlined below, are an important factor in deciding the appropriate actions for New Zealand.
 - The earth's climate has a large natural variability due to factors such as the inherent variability of the earth's orbit and changes in solar energy input. Superimposed on this is the variability of a system composed of the atmosphere, oceans, large continental masses and natural ecosystems.
 - Only a small fraction of the annual quantities of CO₂ emitted into the atmosphere are man-made. The rest comes from plant decay, volcanic seepage and other natural processes that are by no means constant.
 - If the greenhouse hypothesis is correct, the changes to temperatures, rainfall patterns and sea levels will bring both positive and negative effects that would impact unevenly within and between countries. It is not certain that the costs of global warming would necessarily outweigh the benefits for the world as a whole. Some individual countries would very likely be net winners.
 - Even if net economic costs are imposed because producers do not face the full economic costs of emissions, action to contain emissions to given target levels may not be feasible or economically justifiable.
 - Regardless of the net global effect, there is, as yet, insufficient evidence to determine whether New Zealand would on average gain or lose from the greenhouse effect. A complex range of factors including changes in production, demand and trade in world markets would have a bearing on the outcome. If we are likely to gain, this raises the question of whether, or the extent to which, New Zealand should take costly actions to reduce global warming.
 - Any warming will take place gradually so that adaptation can occur over time. If future research indicates that the impacts are serious, time lost by delaying action now can be regained by accelerating the future response even though this might be achieved at higher cost in the future (but at a lower expected cost viewed from the current position of uncertainty).

- There is a risk of an international over-reaction to fears of global warming of the kind that accompanied fears of oil shortages in the 1970s.
- In overall terms, New Zealand's contribution to any build-up in greenhouse gases is minute. Gross emissions are substantially offset by the absorptive capacity of our extensive forests. Moreover, there are no easy options for reducing current levels of emissions. For example, reducing thermal generation emissions by 20 percent by 2005 could require a doubling of electricity prices. Achieving that target by 2000 would be virtually impossible without draconian measures. Most available options would have other negative environmental effects as well as economic costs.
- The paper does not emphasise sufficiently the fact that unilateral action to reduce greenhouse gases by New Zealand would be pointless. The major impact of unilateral measures would be a reduction in New Zealand's comparative advantage in competitive world markets, and a reduction in national income. Our action would not reduce total greenhouse gas emissions because other countries would adjust their production to satisfy unchanged world demand.
- New Zealand does not have to take costly unilateral actions to be taken seriously at international forums.
 - The futility of New Zealand adopting unilateral measures should be apparent to all in the international community.
 - Many other countries, most notably the United States, are not prepared to commit themselves to significant initiatives on the basis of present knowledge.
 - New Zealand is recognised as a middle income country confronting major economic problems and is in a poor position to sustain further falls in income from growth-denying measures. Other middle income countries such as Ireland, Spain and Portugal have made no commitments to reduce emissions.
 - New Zealand can already point to significant policy actions which are compatible with the mitigation of greenhouse effects. Examples are the elimination of subsidisation and underpricing of energy products, the improved efficiency in the energy sector following deregulation and SOE reforms, and the imposition of a 12 1/2 percent GST on all sales of energy.
 - If deemed desirable, New Zealand can work for international agreement on reducing greenhouse gas emissions and can agree to join in a programme of

internationally coordinated measures. New Zealand can, in the interim, research the least cost methods of reducing CO₂ emissions should an international agreement be reached.

- The potential contribution New Zealand can make to the international debate and any negotiated agreement on action should not be overstated. There is no basis for aspiring to a leadership role in the process.
- If the case for reducing CO₂ emissions is accepted, the paper is correct in suggesting that lowest cost options should be considered first, and that, where possible, market based solutions should be adopted in preference to heavy regulation.
- The potential achievements of energy management are overstated in the paper. There is little, if anything, that makes investment in energy saving technology any different from investments in other cost saving technologies or techniques. The 'barriers' identified in the paper are generally real costs faced by individuals in their decision making - in particular, the cost of obtaining and assimilating information.
 - The pressure of competitive markets provides strong incentives for firms to adopt methods (including energy management or other approaches) that reduce costs.
 - Sellers of energy management methods and technology (and other cost reducing methods) have strong incentives to market their products to potential customers.
 - If government officials can identify very high rates of return from energy conservation measures, this raises two questions: first, why are people in the private sector so much less skilled than public officials at identifying such opportunities; and second, why do those officials not leave the public sector and set up their own businesses and realise the large profits that they claim are available?

Little merit is seen in direct interventions (subsidies, building regulations, favoured technologies etc.) on energy management grounds.

- The paper provides no basis for evaluating the economic (and environmental) costs to New Zealand of meeting a percentage target reduction in greenhouse gas emissions. Indeed there can be no assurance that reductions of the order of 20 percent are remotely feasible, having regard to their practical implications. There is far too flimsy a base of evidence and analysis for any responsible commitment to such a target.

- It is submitted that New Zealand's approach to the issues raised by global warming should involve:
 - a suspension of the commitment to a 20 percent reduction in CO₂ emissions by 2000 pending clearer scientific evidence and concerted international agreement on concrete action to give effect to such a target;
 - a quantitative analysis of the likely economic costs, and an assessment of the environmental effects, of achieving percentage target reductions in emissions so as to provide an informed basis for government decision making;
 - the avoidance of action which would narrow future options, such as a diminution of water rights available for the generation of hydro electricity;
 - the adoption of a conservative approach towards any commitment to reduce emissions, and the avoidance of unilateral action. New Zealand is justified in moving at a slower pace than other major countries, particularly the United States, which are proceeding cautiously. Given current government expenditure priorities, resources devoted to this area, both domestically and in respect of New Zealand's participation in international forums, could be scaled down.