

Submission

by

Business|NZ

to the

**Energy Efficiency and Conservation Authority
and the Ministry for the Environment**

on

**Renewable Energy: The Proposed Target for
New Zealand - Consultation Document**

June 2002

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1. Introduction

- 1.1 This submission is made on behalf of Business New Zealand, incorporating regional employers' and manufacturers' organisations. The regional organisations consist of the Employers and Manufacturers Association (Northern), Employers and Manufacturers' Association (Central), Canterbury Manufacturers' Association, Canterbury Employers' Chambers of Commerce, and the Otago-Southland Employers' Association. Business New Zealand represents business and employer interests in all matters affecting those sectors.
- 1.2 One of Business New Zealand's key goals is to see the implementation of policies that would see New Zealand retain a first world national income and to regain a place in the top ten of the OECD in per capita GDP terms. This is a goal that is shared by the Government. It is widely acknowledged that consistent, sustainable growth in real GDP per capita of well in excess of 4% per annum (and probably closer to 7-8%) would be required to achieve this goal. Continued growth of around 2% (our long-run average) would only continue New Zealand's relative decline.
- 1.3 The health of the economy also influences the ability of a nation to deliver on the social and environmental outcomes desired by all. First class social services and a clean and healthy environment are possible only in prosperous, first world economies.
- 1.4 We note this commentary on the proposed renewable energy policy should be read in conjunction with our submission on the Government's Preferred Policy Package (attached as Appendix 1).

2. Toward a Co-ordinated Energy Policy

- 2.1 Business New Zealand would agree that it is appropriate and prudent to work towards the development of a, "sustainable energy future for the country"¹. It is, however, of increasing concern to us that current energy "policy" actually consists of several differing strands and while some are well developed, others remain at the conceptual stage. Absent from the mix is an overriding strategic plan to take the economy into the desired sustainable energy future.
- 2.2 (These strands include the proposed renewable energy target, NEECS, the preferred policy package on climate change, the national waste strategy, the proposed transport strategy and local government reform.)
- 2.3 We are aware of the Government's *Energy Policy Framework* (3 October 2000) and note that while that document declares that one of the desired overall outcomes is "reliable and secure supply of essential energy services", it does not appear to offer any direction on how we are to achieve adequate and effective energy supplies in the longer term.

¹ Hon Pete Hodgson, p4, consultation document

- 2.4 Business New Zealand believes addressing longer term, secure energy supply to be a critical factor in achieving sustainable national economic growth. While renewable energy technologies and comprehensive conservation strategies could well play an increasing role in securing such a supply we are not convinced that energy from these sources alone will satisfy future demand.
- 2.5 Several key factors need to be considered in arriving at a strategy that will secure both sustainable economic growth and a secure energy supply. These include the Resource Management Act, the availability of existing and potential energy stocks, and the transaction costs and timing of adopting new energy technologies.
- 2.6 The Resource Management Act 1991:
- 2.6.1 The renewable energy strategy calls for an additional 30PJ of renewable electricity generation capacity by 2012. A number of observers, including officials, have noted that achieving this objective may be impeded by regulatory processes and the consequential costs. The processes most often cited are those related to the Resource Management Act 1991 (RMA), particularly in relation to new hydro developments. Similar impediments also hamper proposed new fossil fuelled generation projects.
- 2.6.2 Given that Business New Zealand believes new electricity generation to now be a high priority, it therefore follows that we believe reform of the RMA to also be a high priority. We wish to stress, however, that we are opposed to any selective amending of the Act to facilitate the development of a particular industry or technology. Business interests have repeatedly highlighted the need for substantial reform of the RMA to remove significant barriers to sustainable economic growth and if the Government and officials now see similar barriers, then it is clearly time for a fundamental review of the legislation.
- 2.6.3 We are of the view that failure to address RMA issues will both preclude achieving the desired renewable energy target and worse, severely compromise the possibility of achieving a, “sustainable energy future”.
- 2.7 Existing and Potential Energy Stocks:
- 2.7.1 Revised estimates of Maui gas reserves suggest that they will be depleted by 2007. Official advice² is that sufficient alternate gas supplies will be available for electricity generation until about 2020 (assuming petrochemical production from Maui gas ceases in 2005), but costs for recovery of that gas remain unclear. What is clear is that at this stage none of the known recoverable stocks are of the size of the Maui field.
- 2.7.2 The strategy document asserts that there is a “high likelihood” of 19PJ and a further “promising but still uncertain” 13 PJ of new renewable energy realisable by 2012. The document also notes (p9) that the 49 turbines at the Tararua wind

² Mr A Smith, Ministry of Economic Development, presentation to Utilicon Convention, 12-14 March 2002, Auckland

farm only produce 0.5PJ per annum. Ministry for Economic Development figures show³ that for year 2000 total consumer use was 460PJ (of which 134.7PJ was from renewable sources). This would suggest that spatial requirements alone may well mean wind generated energy remains a marginal technology for some time.

- 2.7.3 Similar doubts regarding their ability to fill the potential supply/demand shortfall apply to the other renewable technologies cited in the discussion document. This only serves to highlight the need to develop a more comprehensive view of future energy supply and demand. That view needs to encompass conservation, renewables and fossil fuel technologies.
 - 2.7.4 Business New Zealand submits that it would be both unwise and irresponsible to not consider the role all viable energy sources could play in contributing effectively to our national growth goals. Of particular note are the abundant coal stocks the country enjoys. In recent years considerable advances have been made in the area of clean coal technologies and it would seem that if monies are to be made available for favoured energy projects via the “projects” programme, then pursuing minimum emission coal technologies would be a worthwhile area to explore.
 - 2.7.5 Failure to consider a comprehensive energy fuel mix and placing an over-reliance on a limited set of technologies could well compromise the declared goal of a reliable and secure energy future. We have noted elsewhere that a “carbon free” (i.e. fossil fuel free) economy may one day be possible, but transformation to that point will be long term and gradualist.
 - 2.7.6 Reliable supply and security of energy will become increasingly important in both the shorter and longer term. The impending “wall of wood”, for example, will place considerable demands on generation capacity for wood processing. If those demands cannot be met, or are not cost-effective, the downstream processing opportunities, and associated economic and social benefits, may well be lost.
- 2.8 Transaction Costs:
- 2.8.1 The consultation document notes the potential costs of renewable energy technologies (p8) and also notes several of these are still under development. Relatively low-cost energy has been one of the few competitive advantages New Zealand has enjoyed and Business New Zealand views with considerable concern the fact that this advantage may be eroding.
 - 2.8.2 While it is understandable from an economic viewpoint that energy prices need to reflect the cost of new generation, we would contend that it is not acceptable to see energy prices increase artificially as a result of deliberate policy actions. Several of the renewable technologies discussed have, in our view, overly optimistic cost projections attached to them.

³ Energy Data File, MED, January 2002

- 2.8.3 Wind generation, for example, is described as having, “near cost-effective opportunities....” (p16). This description, however, is at variance with advice we recently received that strongly suggested commercial wind power was not feasible without government subsidisation. It is likely that similar artificial support would also be required for a number of other renewable technologies and we have noted the barriers the RMA presents to more traditional technologies such as hydro.
- 2.8.4 Given the cost uncertainties and the inadvisability of an overly interventionist approach by Government we would strongly recommend that the market price of energy is given the highest priority when deciding which technologies to advocate.

3. Conclusion

- 3.1 Business New Zealand supports the goal of working toward a sustainable energy future and believes identifying a longer term, secure energy supply is critical to achieving sustainable national growth.
- 3.2 While recognising the desirability of utilising additional renewable technologies the advocacy of such technologies must not be permitted to impact negatively on market energy prices.
- 3.3 To minimise costs and to facilitate the introduction of new developments several regulatory barriers need to be addressed. In particular, comprehensive reform of the RMA will be required if a sustainable and cost-effective energy future is to be achieved.
- 3.4 A comprehensive overarching energy strategy needs to be developed that looks beyond 2020. The strategy needs to consider all viable energy fuels, the drivers and impediments to delivering those fuels and their associated technologies, and offer a seamless and least-cost pathway to supplying the demands of the future.

Appendix 1 (see below)

Submission

by

Business|NZ

to the

New Zealand Climate Change Project

on

**“Climate Change – The Government’s Preferred
Policy Package – Discussion Document,
April 2002”**

June 2002

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1. INTRODUCTION

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- 1.2 One of Business New Zealand's key goals is to see the implementation of policies that would see New Zealand retain a first world national income and to regain a place in the top ten of the OECD in per capita GDP terms. This is a goal that is shared by the Government. It is widely acknowledged that consistent, sustainable growth in real GDP per capita of well in excess of 4% per annum (and probably closer to 7-8%) would be required to achieve this goal. Continued growth of around 2% (our long-run average) would only continue New Zealand's relative decline.
- 1.3 The health of the economy also influences the ability of a nation to deliver on the social and environmental outcomes desired by all. First class social services and a clean and healthy environment are, however, possible only in prosperous, first world economies.

2. Business New Zealand and Climate Change

- 2.1 Business New Zealand believes climate change is an important issue. The business community wishes to participate in and contribute to the discussion on what role New Zealand plays in addressing climate change.
- 2.2 Business and industry are seeking as much certainty as possible, particularly on issues such as the Kyoto Protocol that are of greater economic than environmental significance for the medium to long term. Uncertainty and equivocation will not attract investment or reinvestment. Nor are they conducive to a balanced growth strategy that would enable quality environmental policies, including climate change policies.
- 2.3 Rightly or wrongly, climate change is regarded as one of the most significant environmental issues facing the planet. This is despite continued uncertainty about the exact extent of global warming and to what influence human behaviour has had on the degree of any warming. However, the fact that governments around the world, including New Zealand's, are taking climate change so seriously means that the business community must do so as well.
- 2.4 Business New Zealand is not in a position to debate the science of climate change and does not wish to do so. We have and will, however, vigorously debate the economics of proposed actions to deal with climate change, most notably ratification of the Kyoto Protocol. Until recently climate change has

been regarded as being 'just another environmental issue', but we are heartened that, in common with a number of other countries, New Zealand has more recently recognised that it is an issue that has critical economic ramifications. The capacity of the Protocol to achieve its stated outcomes against its likely cost is also a matter of serious concern.

2.5 The Government's assessment to date is that whilst the costs of climate change are potentially large, the overall economic costs to New Zealand of implementing the Kyoto Protocol are likely to be relatively small and, taking into account forest sink credits, could possibly even be mildly beneficial. The precise economic impact will depend on which domestic policies are selected for implementing the Protocol. However, New Zealand's unique characteristics mean that the burden of ratification could be particularly heavy for this country.

2.6 Our concerns are primarily related to the implications of policy initiatives on New Zealand's international competitiveness:

- energy is a key input in New Zealand, and low cost, abundant energy is one of New Zealand's few competitive advantages. Increasing the cost of emissions will reduce our economic growth prospects more than other, less energy intensive economies. This will hamper New Zealand's efforts to improve our OECD rankings;
- the choice of 1990 as a benchmark year is particularly disadvantageous for New Zealand. New Zealand was in the depths of a severe recession in 1990, so emissions were at a particularly low ebb in that year, and over the past decade New Zealand's energy intensity has increased due to the increase in energy intensive industries such as dairying;
- New Zealand industries are particularly vulnerable to competition from countries that will be outside the Protocol or which will refuse to ratify. More so than European countries, for example, our commodity based primary exports compete against those from Australia, the United States, and particularly developing countries in Asia and Latin America. Any increase in production costs will adversely impact on New Zealand's international competitiveness;
- New Zealand's geography puts us at a disadvantage. We have high transport costs per unit of GDP and energy intensive industries remain at risk of relocation to lower-cost developing countries closer to our main markets. These developing countries will not be subject to the cost increases New Zealand would face from implementing the Protocol;
- New Zealand's growing population makes achieving any emissions reduction targets particularly difficult (New Zealand's population is now over 12% higher than 1990, and growing at a rate of around 1% per annum). It is no coincidence that those European countries most

enthusiastic about the Protocol have static or declining populations;
and

- forest sinks offer only limited potential to offset abatement costs and there are complex and significant issues surrounding the property rights of forest owners and forests planted prior to 1990.

- 2.7 For all these reasons, New Zealand should take full account of developments and decisions made by our significant trading partners, particularly Australia, Canada, Japan, and the United States. While European markets are important to New Zealand, we have more in common with Asian and Latin American economies, which will not be subject to Kyoto obligations.
- 2.8 For all the reasons set out above, we continue to oppose ratifying the Kyoto Protocol at this time and believe the preferred policies need to be subject to rigorous analysis prior to implementation.
- 2.9 We wish to stress, however, that doing nothing is not an option. Instead, New Zealand should continue to monitor carefully what other countries, particularly our significant trading partners, are doing to address climate change.
- 2.10 We note that, while rejecting ratification, the United States has taken a strong leadership role in this regard. It has decided that for now at least Kyoto is not a credible way forward and it has announced a set of unilateral measures that it believes will reduce greenhouse gas emissions without harming its economy. Australia has recently entered into a climate change 'partnership' with the United States, and Canada is also exploring a similar approach. New Zealand should be looking very closely at these developments in order to ascertain the scope for partnership and the capacity to influence policies that would impact on some of the largest and wealthiest global economies whose emissions policies are critical to effective global action.

3. The Preferred Policy Package

- 3.1 Business New Zealand acknowledges that, with or without ratification of the Kyoto Protocol, new domestic policies are required to address climate change.
- 3.2 Climate change policies must, however, complement a growth strategy that has a goal of returning New Zealand to the top 10 of OECD countries in the medium term. In view of this, such policies must be consistent with the following overarching principles:
- long term and gradualist – while a carbon free economy may one day be possible, it will take decades rather than years to achieve without severe economic and social dislocation;
 - enhancement or at the very least preservation of New Zealand's international competitiveness – policies must take full account of those of our significant trading partners;

- equity – policies should be fairly and consistently implemented across all sectors of the economy and society;
- avoidance of carbon-leakage – emission-intensive industries must not be driven overseas; and
- environmental integrity at low cost – New Zealand emissions should be reduced, or at least stabilised, on a per capita basis.

3.3 The Foundation Policies:

3.3.1 The discussion document identifies several “foundations” to climate change policy that it is contended will underpin actions during the first commitment period. Business New Zealand believes the success of those “foundations” will be jeopardised unless several structural and regulatory issues are given attention. These include:

- an improved depreciation regime for plant and machinery to encourage the replacement of outdated technology that is often less energy efficient and thus unlikely to underpin effective climate change strategies. In addition to direct application at an enterprise level, there are also strong infrastructural arguments for accelerating change. For example, outdated thermal electricity generation capacity is not being replaced. New technology gas turbine plants produce the same amount of electricity with half the gas of the older plants;
- immediate reform of the Resource Management Act is needed to encourage new development, including renewable and advanced fossil fuel technologies. The RMA currently presents barriers to the development of hydro, distributed (i.e. localised and often relatively small-scale) and wind generation. This has, for example, seen over recent years a marked decline in consents for new hydro and geothermal facilities. In addition, the reform should include provisions that explicitly exclude process and/or efficiency targets being included within resource consents. We wish to stress, however, that amending the RMA to allow for such developments must be done in the context of wider reform. We would not support reform being limited to an industry specific amendment (e.g. wind generation). Such an approach was never the intent of the legislation and, if progressed, would suggest that the Government was attempting to “pick winners”. The development of climate change and energy policies highlights the need for a fundamental review of the Act and, as a minimum, we would urge the Government to immediately implement the recommendations made by the 1999 Ministerial Reference Group;
- obstacles to improved electricity transmission infrastructure need to be urgently addressed. Failure to do so will hamper the development of new and innovative distributed generation opportunities and limit the most efficient use of hydro resources;

- it is critical that there be accelerated promotion of efficient energy technologies and R&D programmes with a particular emphasis on small to medium enterprises (SME's);
- substantial reform of road pricing, funding, investment and management would significantly improve efficiency in the road transport sector. Some modelling has already been done on the GDP benefits of investment in better roads and given the continuing decline of rail alternatives, better roads will be increasingly important for transport emission reductions. The recent roading announcements were positive for the commercial road transport sector but the lift in funding for increased road construction is insufficient if New Zealand is to achieve the targeted increase in economic growth;
- a rigorous oversight programme needs to be implemented to ensure that the proposed new local government reforms do not create barriers and impediments to innovation and growth, or inequitable emission mitigation regimes in different geographic regions. In particular, we note that members of the Cities for Climate Change Protection Programme will be required to develop their own inventories, and set their own greenhouse gas reduction targets. Local government reduction plans create the significant risk of duplicating or even conflicting with national policies and increasing business compliance costs; and,
- the Government needs to actively promote, in partnership with business and industry associations, understanding of the issues surrounding climate change to the wider business sector. Business New Zealand recently conducted a survey of its membership seeking feedback on several issues surrounding climate change. Over 500 responses were received from both large and small enterprises. 85% of respondents indicated ignorance of the waste and renewable energy targets, while 94% did not believe they had adequate information on the potential costs of proposed policies to allow them to adequately forward plan. Lack of awareness to this scale does not bode well for the success of the foundation policies. This is of particular concern in that the success or failure of the preferred policy package appears to very much depend on the success or failure of the "foundations". The NEECS targets, for example, are ambitious and if they are to be achieved they will require the participation and support of a far broader swath of the economy than the survey results suggest currently exists.

3.4 Competitiveness-at-risk group:

- 3.4.1 As noted above Business New Zealand is of the view that a climate change policy package should both avoid driving any industry off-shore and be equitable in application across the economy. In regard to the latter point, we view with some concern the lack of detail in the "high level criteria" (defining "competitiveness-at-risk") identified in page 31 of the discussion document.

This lack of detail makes it difficult to determine what size or type of enterprise would be eligible for the so-called “sheltering”, or Negotiated Greenhouse Agreement (NGA).

- 3.4.2 Comments from officials suggest, however, that the intent may be to allow only a limited number of enterprises to qualify for “shelter”. Business New Zealand strenuously rejects such an approach that would be inequitable and would suggest that the Government is entering the risky area of “picking winners” across the economy
- 3.4.3 We note that Statistics New Zealand reports that 1,452 enterprises have between 50 and 99 staff and a further 1,307 have over 100 staff⁴. Many of these companies are active in export markets and, while for some energy may not be their major input, all will be impacted by rising costs implicit in the Government’s preferred policy package. It would, therefore, appear logical and equitable and less likely to introduce distortion into the economy to allow any enterprise to apply for “shelter” or an NGA.
- 3.4.4 Clearly this would require the development of flexible criteria to allow for differing activities, but the overall goal for all participating enterprises would be measurable efficiencies to a specified level. Business New Zealand would welcome the opportunity to work with officials in developing such criteria.
- 3.4.5 We would also seek dialogue with officials regarding the proposed target that an NGA is to be based around. Page 32 of the discussion document states that, “...an NGA will be based around developing a pathway and timeline for the firms to achieve international best practice in emissions management. In the event that negotiations do not result in an agreement that reaches best practice within an acceptable timeframe, a partial charge may be negotiated”.
- 3.4.6 This target, as defined, is in our view unworkable. Energy capital stock, like other capital stock, has a long lifetime. “Best available” technology will always be better than existing plant. It is not economic, and would be fiscally irresponsible, for an enterprise to scrap existing plant every time a technological advance occurred. Similarly, it would be unrealistic to expect a New Zealand manufacturing facility to have to totally upgrade because a “state of the art” facility in the same manufacturing sector opened in, say, China.
- 3.4.7 NGA targets need to be determined on a case-by-case basis, recognising the nature and dynamic of the New Zealand productive sector, including its small size and distance from markets, and always be based on the least-cost principle.

3.5 Projects:

- 3.5.1 The Preferred Policy Package states that a project is an activity that delivers a defined reduction in greenhouse gas emissions in return for which

⁴ New Zealand Business Demographic Statistics: As at February 2001. Table 1

Government provides an incentive. While Business New Zealand supports the general concept of projects we are of the view that careful evaluation needs to take place in several areas including:

- the mechanism should not be used to subsidise or support operations that would not have long term viability in the absence of project funding;
- interventions need to be carefully focussed if targeted at specific market failures resulting from the climate change programme;
- any proposed intervention needs to be carefully evaluated in terms of the potential for distortionary market effects or other unintended consequences, and,
- the role of the project mechanism with NGA signatories needs to be determined.

3.5.2 Business New Zealand would welcome the opportunity to assist with the development of the project mechanism.

3.6 Carbon Tax:

3.6.1 The vast majority of businesses and consumers will fall under the “General Energy Users Group” category and the key policy measure for this group is a carbon charge capped at \$25 per tonne of carbon.

3.6.2 The Preferred Policy Package seems to suggest that higher CO₂ emissions costs (the “carbon tax”) will incentivise businesses to reduce energy use by employing increasingly sophisticated energy efficiency techniques. Those who cannot, or will not, are expected to pass on the additional costs to consumers who, it is assumed, will modify their purchase patterns in response to higher cost products. The cumulative effect is intended to alter behaviour and result in emission reductions.

3.6.3 Setting aside the uncertainty of what the international price of carbon might be, Business New Zealand does not support the proposed carbon tax and believes the logic behind it to be seriously flawed. Increased costs will not encourage the uptake of efficiency technologies. It is far more likely that the negative impact of increased energy pricing will constrain economic growth, dis-incentivise the uptake of new technologies and limit the availability of new product choices.

3.6.4 Doubts have been expressed about the desirability or even the ability of taxes “on undesirable activities” (e.g. energy, alcohol, tobacco) to change behaviour. In regard to energy, because of the low inelasticities of demand such taxes would need to be set at a very high (and thus economically unsustainable) level to achieve any change in behaviour.

- 3.6.5 We noted above that comparative low cost energy has been one of New Zealand's few competitive advantages and would contend that a fundamental, underlying tenet of climate change policy should be that the New Zealand economy is not subject to any artificial energy price increases in advance of comparable action by our trading partners.

4. Conclusion and Recommendations

- 4.1 Business New Zealand does not believe the Government's decision to ratify the Kyoto protocol at this time is the correct one. We recognise, however, that there is a need to address climate change strategies and wish to actively participate in the policy development process. That policy process needs to be firmly guided by overarching principles and needs to be fully cognisant of New Zealand's international competitiveness. Any policy measure must reflect both equity and least cost.
- 4.2 Our consideration of the Preferred Policy Package has also highlighted the potentially high compliance costs associated with the climate change programme. There are likely to be high administrative costs associated with the "shelters" process and the Project Mechanism, and we note the potentially considerable costs associated with related Government activities. The Climate Change Response Bill, for example, suggests an extensive and expensive inventory regime with initial annual administrative costs estimated to be \$4,624,000.
- 4.3 In an effort to arrive at an effective and workable climate change strategy Business New Zealand recommends that the Government:
- implement an improved depreciation regime to help facilitate the introduction of more efficient technologies;
 - commence an immediate and fundamental review of the Resource Management Act with a view to removing barriers to new developments and excluding restrictive consent conditions;
 - urgently address electricity transmission infrastructure issues;
 - accelerate the promotion of efficient energy technologies and R & D programmes to the SME sector;
 - introduce substantive reform of the roading infrastructure;
 - apply rigorous oversight to the local government sector;
 - enter into a partnership with the business community to more effectively promote awareness of the climate change issue to that community;
 - work with Business New Zealand to improve criteria and equity in determining eligibility for "sheltering";

- carefully evaluate and consult widely on the applicability and methodology for activating the project mechanism, and
- review the decision to implement a carbon tax, giving full consideration to the equity and competitive disadvantage issues.