

Submission

By



To The

Ministry of Economic Development

On the

Draft New Zealand Energy Strategy

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DRAFT NEW ZEALAND ENERGY STRATEGY TO 2050
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1. INTRODUCTION

- 1.1 Business NZ welcomes the opportunity to comment on the *'Draft New Zealand Energy Strategy to 2050: Powering Our Future – towards a sustainable low emissions energy system'* (referred to as 'the strategy') released by the Minister of Energy on December 11, 2006.
- 1.2 The following suite of documents have also been considered:
- *'Discussion paper on measures to reduce greenhouse gas emissions in New Zealand post 2012'*, published by the Ministry for the Environment on December 11, 2006.
 - *'Transitional measures: Options to move towards low emissions electricity and stationary energy supply and to facilitate a transition to greenhouse gas pricing in the future – a discussion paper'* published jointly by the Ministry for Economic Development and Ministry for the Environment on December 11, 2006.
 - *'Draft New Zealand Energy Efficiency and Conservation Strategy'* released for consultation by the Minister of Energy, Hon David Parker and the Government spokesperson on energy efficiency and conservation, Jeanette Fitzsimons, on December 14, 2006.
 - *'Sustainable Land Management and Climate Change – Options for a Plan of Action'* published jointly by the Minister of Agriculture and Forestry and the Minister Responsible for Climate Change Issues.

2. SUMMARY OF RECOMMENDATIONS

- 2.1 Having carefully considered the suite of documents supporting the strategy, Business NZ has developed seven main recommendations to inform the final document.
- (a) A long-term energy strategy should ensure the lowest possible price for the desired level of security of supply;
 - (b) There needs to be a comprehensive climate change strategy independent of the energy strategy;

- (c) Robust cost benefit analysis is essential before requesting comment on proposals;
- (d) Sustainable discount rates must be applied when deriving net present value of climate change measures;
- (e) Externalities must be valued in a rational way when assessing projects designed to mitigate climate change;
- (f) The methodology to be adopted for cost benefit analysis should have stakeholder input;
- (g) The issues surrounding internal off-set of emissions versus Kyoto off-set allowances need to be addressed;

3. BACKGROUND

- 3.1 Business NZ is concerned at the absence of any cost benefit analysis on the proposed initiatives and the failure to relate energy security of supply and competitive pricing to economic growth. The fact that officials have stated there will be cost benefit analysis undertaken on all proposals before the final document is released ignores the fact that submitters are being asked to comment on proposals that are far from robust and may ultimately prove so costly they can never be implemented.
- 3.2 New Zealand has been a leader in electricity sector reforms that were ultimately driven by industry groups rather than government policy. In this process, New Zealand has been recognized for its ability to undertake robust analysis of all the options, thus ensuring the best economic outcome as well as a solution that best suits New Zealand. The strategy and associated discussion documents fail to demonstrate this rigor of robust analysis and to a great extent confuse the purpose of a long-term energy strategy and the international climate change commitments the government has made. In fact, it looks as though we have adopted a solution to a problem faced by other developed countries rather than develop an approach specific to New Zealand.
- 3.3 Our ratio of renewable to thermal generation is not matched by many other countries internationally. Most first world governments have pitched their climate change policies to reduce their existing high levels of thermal generation – in the main wind generation. But even so, they will never come close to the ratio that exists in New Zealand.
- 3.4 Making New Zealand more reliant on renewable generation will attract high risks and costs. Any move to drive thermal generation

from the market is likely to make the country less attractive to foreign investment – with energy prices rising well above that of our trading partners – and will threaten our security of supply.

- 3.5 It's questionable whether there is a need to incentivise renewable generation development in New Zealand, other than by reducing the level of costs incurred through application of the RMA. The market is already responding to the challenge, with some of the major generators outlining geothermal projects that appear to be viable without imposing a price on carbon.
- 3.6 Our electricity market operates under a set of rules for electricity generation and retailing that were agreed to on a voluntary basis. However, these are now controlled by a government-appointed regulator whose main focus has been on transmission – which remains a government-owned monopoly service. The market was designed to deliver pricing signals that encourage timely investment in generation and to date this has been successful as the lowest cost generators have been brought on line at an appropriate time.
- 3.7 This means there's always a tension between supply and demand which needs to be managed with firm supply in reserve. The excessive ratio of weather-dependent, intermittent, renewable generation in New Zealand has required significant thermal capacity to ensure a secure supply. Market participants are unlikely to invest in a generation project that does not provide a realistic rate of return and consequently, there's been a lack of generation designed to operate at peak load times only. To the extent that this type of generation is not financially viable, government was forced to invest in oil fired peaking plant to assist security of supply in dry years.
- 3.8 The cost recovery, location, capacity and available fuel resource for this plant are far from optimum and by no means reflect what would be a robust market outcome. It's offered into the market at its short-run marginal price which covers fuel and operating charges, and the return on investment is recovered by levy on all consumers. It is located in a transmission constrained area of the central North Island, does not have adequate capacity for purpose and has a fraught fuel supply problem due to distance from bulk fuel storage. No other generator in the market is able to recover its costs in this way and the other generators tend to locate close to fuel source or close to load.
- 3.9 It's clear there's a significant issue with regulatory intervention in what is effectively a free market and that the possibility of

distortions or perverse outcomes are far greater when there is no robust cost benefit analysis. The drive by government, through the draft strategy, to eliminate thermal generators from the mix is neither rational nor achievable if we are to maintain the lowest cost, secure electricity supply.

4. RECOMMENDATIONS

4.1 *Recommendation: A long term energy strategy should ensure the lowest possible price for the desired level of security of supply*

- 4.1.1 A low cost and reliable supply of energy, in particular electricity, is a significant input to wealth creation by New Zealand businesses. It's also important in ensuring the good health and wellbeing of consumers. These factors are acknowledged in the supporting documentation and in recent statements by Ministers with portfolios not directly related to energy.
- 4.1.2 It's also acknowledged there are a number of important policy issues affecting the wealth of the economy as a whole. Some of these policy issues are very closely related to energy, such as climate change, while others such as health are not directly related but will benefit from a sound energy strategy.
- 4.1.3 New Zealand has always subscribed to the fact that market mechanisms deliver the most cost effective outcome and that where significant market failure occurs; regulation is needed to ensure the equivalent of a truly competitive environment. While excluding externalities from a pricing structure could be considered a market failure, any steps taken to regulate an outcome should ensure this occurs in an equitable way.
- 4.1.4 In the same way that consumers influence the sale price in a competitive market, so they should be able to determine the level of security of supply the system provides. This recognises that for a given situation, each increment in the level of supply security come at a cost, and consumers should decide whether they want to pay that price. With respect to electricity supply, this impacts not only transmission and distribution but the source and nature of generation.
- 4.1.5 The strategy assumes climate change is the most important related policy issue and that energy policy should reflect this with no

reference to the impact on consumers. With no attempt to establish the cost benefit of increased renewable generation, it's assumed this is the most cost effective way to provide long term security of supply.

- 4.1.6 Business NZ does not accept this approach and would argue that while climate change is an issue that needs to be addressed, it should not be addressed at any cost. In order to secure a robust outcome the strategy should consider the short, medium and long term options for generation and these projects should be ranked on the basis of their net present value – established using reliable and robust discount factors.
- 4.1.7 The various scenarios should be assessed on their impact on climate change policy and where appropriate, the alternative ways of meeting our climate change obligations should be subjected to similar robust analysis. The outcome from this process should deliver the lowest cost option meeting consumer requirements for security of supply.

4.2 *Recommendation: There needs to be a comprehensive climate change strategy independent of the energy strategy*

- 4.2.1 At this point in time it has been accepted by politicians in first world countries that it's prudent to adopt policy that mitigates the impact of emissions identified as contributing to long term climate change. There is however some unease within the conservative scientific community regarding the politicisation of the issues and the potential to exaggerate both the rate of change and the cost of early action versus the cost of doing nothing. This presents difficulties when carrying out robust cost benefit analysis of policy options for climate change that relate to our future energy strategy.
- 4.2.2 By virtue of its minute contribution to global emissions. New Zealand is a climate taker not a climate maker. On this basis it is more important for New Zealand to give priority to adapting our economy to the impacts of climate change, as the cost may be even more significant than mitigation. Where it makes economic sense to reduce emissions, policy should facilitate this but not at an unfair price to our economy.
- 4.2.3 The situation in New Zealand is further complicated by the fact that more than half our emissions are a direct result of our agricultural based economy and while we could employ an off-set strategy we have no technology solution for the problems presented by methane emissions from stock.

4.2.4 It's hard to move away from the concept that government believes climate change is only about energy consumption and in particular, the energy consumed by thermal generators and large industrial users. This position is reinforced by the fact the draft strategy and related discussion papers on climate change policy largely focus on electricity generation and stationary engine emissions. There is virtually no discussion on New Zealand's largest contribution to green house gas emissions, namely methane. If New Zealand is to become a serious contributor to emission reductions then policy must be consistent over all sectors of the community. Business NZ wants government to develop an independent climate change strategy that includes:

- A framework for dealing with all greenhouse gases with focus on New Zealand's main greenhouse gas, methane.
- New Zealand's position on the second commitment period so officials can participate in international discussions for a global climate change response.
- Consideration of purchasing carbon credits on the international market to meet New Zealand's Kyoto commitments.
- A costs benefits analysis of withdrawing from the Kyoto Protocol while remaining a signatory to the Framework Climate Change Convention.
- Increased efforts to join AP6 or failing that to cooperate with AP6 so that New Zealand can benefit from new technologies and methodologies.
- A clearly defined set of mitigation options within a timeframe that is rational.
- A comprehensive review of the main adaptation strategies assuming the science is correct in that there will be no impact on global climate before 2030.

4.3 Recommendation: Robust cost benefit analysis essential before implementation decisions are made.

4.3.1 Officials have stated that this will be an iterative process whereby there will be a second round of consultation following the release of the final document where specific proposals will have been subject to cost benefit analysis before being included in the document. Further that cost benefit analysis will be available at the time the final document is released for consultation. Business NZ is concerned that long range policy decisions are being made without adequate cost benefit analysis. In recent times the following projects have been announced with no supporting analysis:

- The mandated percentage of biofuels in all petrol and diesel sold at the pump.
- The Department of Building and Housing proposal for compulsory double glazing and increased insulation in all new homes.
- The Electricity Commission's compact fluorescent light bulb subsidy project.
- The Energy Efficiency and Conservation Authority's subsidised solar water heating programme.\
- The proposed \$8 million fund to facilitate the development of wave power technology.

4.4 Recommendation: Sustainable discount rates must be applied when deriving Net present Value of climate change measures

4.4.1 Integral with the need for a robust cost benefit analysis is the adoption of a rational discount rate. For years government has adopted a discount rate of 10% when evaluating their net present worth. This figure was established by Treasury and we understand that they are currently reviewing this figure but are unlikely to recommend a rate below 9%. When evaluating the potential gains from projects as part of the draft New Zealand Energy Efficiency and Conservation Strategy, the consultant adopted a 5% discount rate to test the sensitivity of the proposals. While this may be a valid exercise, it is concerning the Ministry of Economic Development confirmed that in their opinion, a 5% discount rate was acceptable and should be adopted as part of any analysis.

4.4.2 In a commercial environment it's common for much higher discount rates to be applied as companies have significant pressure on their investments. By adopting an artificially low discount rate, government

would simply be establishing how much they were prepared to subsidise projects rather than determining which project should be given priority.

4.5 *Recommendation: Externalities must be valued in a rational way when assessing projects designed to mitigate climate change*

4.5.1 In a similar way there needs to be consistency when establishing the real value of externalities associated with climate change. While government was advancing the introduction of an economy wide carbon tax set initially at \$15/tonne and capped at \$25/tonne Treasury was calculating the government's liability under Kyoto on the basis of \$9/tonne. With the absence of any real international trading platform it is almost impossible to set a price on carbon. Previously officials quoted the EUTS Stage I peak value of \$32/tonne but when this figure collapsed the around \$2/tonne as a result of over allocation they began citing the EUTS Stage II trading value. This ignores the fact that most European experts are predicting a final price at around half the value of initial trades, assuming of course they have not over allocated again in Stage II.

4.6 *Recommendation: The methodology to be adopted for cost benefit analysis should have stakeholder input*

4.6.1 The Ministry for the Environment established a work stream to develop a common methodology to be adopted for a cost benefit analysis related to climate change. It held two workshops with invited industry participants where the issues outlined above were discussed at length. The intention was to hold further workshops over time in order to establish robust inputs to the analysis including the discount rates, the value of externalities and the methodology for establishing net present values for long term projects. There has been no engagement since the initial workshops yet it is a critical factor in developing appropriate policy.

4.6.2 Business New Zealand supports the revival of this work stream as it provides a clear and transparent process to enable stakeholder input to one of the most important factors influencing policy in the area of climate change

4.7 *The issues surrounding internal off-set of emissions versus Kyoto off-set allowances need to be addressed*

- 4.7.1 Current policy on ownership of carbon credits for plantation forests established post 1990 needs to be reviewed. It does not seem equitable that forest owners are faced with the liability of deforestation without having the value of carbon credits to begin with.
- 4.7.2 The argument that the cost of allocating credits to forest owners is an extremely expensive exercise only holds true if these credits could be traded on an international market. At this time there is no market other than a low value "grey market" where such credits could be traded.
- 4.7.3 The fact that the credits are the property of the forest owners does not preclude government from taking them into account as an off-set of the liability under Kyoto. If government was to initiate an internal emissions trading regime, then forest owners may be tempted to sell the credits to emitters but in so doing they would face the liability if they felled the trees at some time in the future without having a continuous replanting strategy.
- 4.7.4 Government needs to argue the case for the carbon content of exported logs to be accounted in the country receiving them in the same way as oil or coal exports. This is a major issue for New Zealand as forest owners would be faced with the loss of carbon credits and the cost of virtual carbon emissions.

5 CONCLUSION

- 5.1 The draft New Zealand Energy Strategy is driven by climate change imperatives. In many instances it would appear that action is proposed regardless of cost. There appears to be a belief that we can achieve climate change objectives at low cost by reducing our internal energy consumption or by replacing traditional fossil fuels with renewable energy sources. There is however no cost benefit analysis to support this view while independent consultants have demonstrated that the proposed approaches are far from low cost.
- 5.2 While there is no objection from business to taking appropriate action to address climate change, there is concern that most of the proposed actions are likely to be high cost. We are a country at some distance from our traditional markets, where businesses face extreme downward pressure on their costs in order to remain competitive and where any artificial environmental costs applied out of step with our trading partners is likely to see significant loss of business.
- 5.3 A significant percentage of our emissions are generated by our agriculturally based economy where there is currently no effective way of reducing these emissions. The only option under the Kyoto Agreement is to off-set these emissions through the planting and maintaining of forests. Current government policy has driven forest owners to clear fell their forests while there is no incentive to replant. This issue needs to be addressed but like the other issues raised; it needs to be addressed in a climate change strategy not an energy strategy.
- 5.4 The strategy should be focussed on the future of our energy supply systems and the results of that, overlaid with climate change imperatives. This approach would realistically see more combined cycle gas turbine generation in the electricity sector, as it is the still lowest cost form of generation and can be built closer to the growth in load than any renewable options. Over time this form of generation would progressively replace outdated coal and oil fired plant while renewable generation takes care of load growth. The end result would be a higher percentage of renewable generation over a reasonable time frame, with a reduction in emissions as gas fired plant replaced coal and oil fired plant on the margin. Similarly we should see growth in the use of gas for our motor vehicles, direct home heating and cooking – all of which would maintain continual downward pressure on our emission levels.
- 5.5 Business NZ believes that over time, a robust and rational energy strategy will deliver the desired reduction in emissions and that this should be

complemented by an equally robust climate change mitigation and adaptation strategy. This would be focussed on delivering the highest level of energy efficiency and the necessary incentives for the adoption of renewable technologies as they become price competitive.

- 5.6 We have not specifically answered the questions posed throughout this document as we believe it is more important to clearly delineate between a future strategy for energy and climate change mitigation and adaptation than it is to respond to questions that traverse both areas of policy.

APPENDIX

6. ABOUT BUSINESS NZ

- 6.1 Encompassing four regional business organisations (Employers' & Manufacturers' Association (Northern), Employers' & Manufacturers' Association (Central), Canterbury Employers' Chamber of Commerce, and the Otago-Southland Employers' Association), Business New Zealand is New Zealand's largest business advocacy body. Together with its 64-member Affiliated Industries Group (AIG), which comprises most of New Zealand's national industry associations, Business New Zealand is able to tap into the views of over 76,000 employers and businesses, ranging from the smallest to the largest and reflecting the make-up of the New Zealand economy.
- 6.2 In addition to advocacy on behalf of enterprise, Business New Zealand contributes to Governmental and tripartite working parties and international bodies including the ILO, the International Organisation of Employers and the Business and Industry Advisory Council to the OECD.
- 6.3 Business NZ's key goal is the implementation of policies that would see New Zealand retain a first world national income and regain a place in the top ten of the OECD (a high comparative OECD growth ranking is the most robust indicator of a country's ability to deliver quality health, education, superannuation and other social services). It is widely acknowledged that consistent, sustainable growth well in excess of 4% per capita per year would be required to achieve this goal in the medium term.