

**Submission**

by

**Business|NZ**

to the

**Energy Efficiency and Conservation  
Authority**

on the

**Draft National Energy Efficiency and  
Conservation Strategy**

**14 June 2001**

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# **DRAFT NATIONAL ENERGY EFFICIENCY AND CONSERVATION STRATEGY**

## **SUBMISSION BY BUSINESS NEW ZEALAND**

**JUNE 2001**

### **1. Introduction**

1.1 Business New Zealand is the leading national organisation representing the interests of New Zealand's business and employing sectors comprising some 76,000 enterprises. Business New Zealand champions policies that would transform and accelerate the growth of high value added goods and services to significantly improve the prosperity of all New Zealanders.

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. This ambition is shared by the Government, and was most recently articulated by the Minister of Finance in his recent 2001 Budget speech. It is widely acknowledged that consistent growth in real GDP per capita of well in excess of 4% per annum (and probably closer to 6-8%) 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 While most of the goals of the draft National Energy Efficiency and Conservation Strategy (NEECS) are laudable, we are concerned about the implementation of specific measures or targets that might impact adversely on the level of economic growth necessary to move New Zealand up the OECD rankings.

1.4 We note in particular a recent report from the New Zealand Institute of Economic Research (NZIER), prepared for Solid Energy NZ Ltd, on the economic impact of the NEECS. This report estimated an overall loss to New Zealand of between \$2 billion and \$4.8 billion for the period to 2010, including an adverse effect on GDP growth if an energy reduction target of 20% is imposed. We endorse the conclusions contained in this report.

1.5 Business New Zealand has some specific comments on the draft NEECS, which we discuss below.

### **2. Strategy Goals**

2.1 Most of the goals identified in the draft NEECS are appropriate in the absence of any credible cost benefit analysis. Several represent good business and commercial sense including:

- Reducing local environmental effects (Goal 2);
- Improving the value the economy derives from use of energy (Goal 3);
- Promoting industry development (Goal 4); and
- Improving economic resilience (Goal 5).

2.2 However, we are opposed to the inclusion in the NEECS of measures and targets that would effectively implement the Kyoto Protocol before it has been ratified and before the Government has made decisions on reducing greenhouse gas emissions. We therefore strongly believe that Goal 1 should not form part of the NEECS.

### **3. Climate Change**

3.1 As discussed above, Business New Zealand does not believe that Goal 1 should form part of the NEECS. The Government has set out a separate process to develop a strategy at achieving greenhouse gas emissions reductions across the New Zealand economy as a whole. Therefore, we consider it to be premature and inappropriate for the NEECS to be a vehicle for implementing the Kyoto Protocol's obligations.

3.2 We are concerned about the impact of unilateral adoption of emission targets that would place New Zealand at an economic disadvantage compared to our significant trading partners and competitors. We also note the uncertainty over the future of the Kyoto Protocol. It would be most imprudent and irresponsible for New Zealand to act unilaterally without some certainty over whether the Protocol is even ratifiable.

3.3 Instead, we believe that the NEECS should focus on energy efficiency measures and renewable energy supply as beneficial economic options for New Zealand that could be implemented cost-effectively. These might also have a benefit in reducing greenhouse gas emissions, but the emphasis must be on enhancing the economy's performance and the integrity of New Zealand goods and services.

### **4. Economic Analysis**

4.1 Business New Zealand is very concerned that the NEECS discussion document does not contain any rigorous cost-benefit or economic analysis on the impact of the energy reduction and renewable supply targets. Many assumptions and assertions are made in the discussion document. For example, Business New Zealand is unaware of the basis for the following claims:

- Energy use by, "every New Zealander is wasteful, polluting and expensive";
- The 20% efficiency target is achievable;
- Consumer savings of \$900 million by 2012;
- The proposed renewable target will be low-cost.

4.2 We are pleased, therefore, that the NZIER was asked by Solid Energy to provide a report on the economic impact of the NEECS proposals. We endorse the report and

its conclusions. (A summary of that report is attached as Appendix 1) We wish to draw particular attention to the following points:

- New Zealand's relatively high level of energy intensity (i.e. use) is not necessarily a bad thing;
- Energy efficiency should be a micro (business level), rather than a macro (economy wide level), concept;
- Energy efficiency should not be confused with energy intensity;
- New Zealand's high relative level of energy intensity is caused by the make up of our economy – this is simply a pattern of our competitive advantages and disadvantages;
- Relatively inexpensive energy is one of New Zealand's few competitive advantages;
- The energy efficiency targets set out in the draft strategy would be extremely costly and would adversely impact on New Zealand's economic growth, and therefore;
- To tilt policy settings against one of our few existing advantages would cause considerable economic damage and high adjustment costs.

## **5. Consultation and Development of the NEECS**

5.1 Business New Zealand is concerned at the short period of time that has been set aside for consultation and development of the NEECS. The potential impact of the goals and targets set out in the NEECS are substantial. The strategy therefore needs to be carefully considered and to be broadly acceptable to the wider community including the business sector before adoption. Unfortunately, however, it appears to us that the whole process has been compressed into too short a time period and has been treated superficially – our concern about the lack of economic analysis is relevant in this regard.

5.2 It is unacceptable that comment on a broad-brush discussion document is likely to be the only public consultation that will take place prior to the release of the final strategy in early October. At the very least, we urge that there be a further round of consultation on the content of the strategy as released in October before it is finalised and implemented. This need not be a time-consuming exercise and in fact it would assist in the development of a better strategy that may be broadly acceptable.

## **6. Industry Module**

6.1 We note that in tandem with the Negotiated Greenhouse Agreements (NGA) it is proposed that a Business Commitment Programme would be developed for groups of small and medium sized enterprises. Along with our concerns highlighted above regarding Goal 1 and the Kyoto Protocol, we would question the practicality of such a programme. Confidentiality, capacity and time availability issues may present significant barriers to up-take. We believe the commitment programme is a worthy objective but it requires considerably more analysis and development before being enshrined in the strategy.

6.2 The suggestion of tax incentives for the implementation of energy efficiency measures may be appropriate. We must note, however, that any such tax incentives are presumably being considered separately in the major tax review currently in progress. It is unacceptable to propose integrated policy in separate packages that are progressing in separate time frames.

## **7. Government and Local Authority module**

7.1 Given the well-documented variability of performance by local government, particularly in reference to the administration of the RMA, we view with considerable concern the suggestion that local government should play a lead role in energy matters. The often perverse outcomes resulting from local authority RMA decisions gives us little confidence that cost effective energy management will result from local authority “leadership”.

7.2 We have similar concerns in reference to the suggestion that district and regional plans be used as efficiency and/or renewable tools. The current apparent paralysis of local authority leadership in reference to Auckland’s infrastructure problems suggests district and regional plan modification may only lead to further prescriptive, and potentially costly, measures.

## **8. Transport module**

8.1 Efficient and cost-effective transport systems are critical to economic performance. While broadly supportive of the potential benefits from energy efficiency in the transport sector, we are concerned that some of the measures outlined in this module could significantly increase costs for individuals and businesses, adversely impacting on New Zealand’s international competitiveness and, by retarding economic growth, harm our standard of living.

8.2 We are particularly disappointed to see that improved traffic management and roading networks appear to be at the bottom of the priority list. While the strategy notes the estimated cost to the economy of Auckland’s traffic problems (at least \$800 million per annum), it does not give attention to how these problems may be rectified. It would seem that if positive and rapid action could be taken on the Auckland scenario, fuel consumption would be significantly reduced, emissions limited and marine pollution minimised.

8.3 We would also be most concerned were any decisions on the NEECS taken prior to, or in isolation from, the important Land Transport Management work being led by the Ministry of Transport.

## **9. Built Environment module**

9.1 We consider the measures proposed in the Built module to be among the most ambitious of the draft strategy. While they include some worthy goals we must, in the absence of any economic analysis of the potential costs and/or benefits, express a degree of scepticism. Without, for example, an explanation of the direct costs, source of skilled labour and finance, and the level of public acceptance, we question the viability of the suggested retro-fitting of 600,000 pre-1977 houses. We have similar reservations over the suggested upgrades of commercial buildings.

## **10. Conclusion**

10.1 While supportive of the broad intent of the strategy we believe it is premature to move to an implementation phase until detailed economic analysis has been carried out.

10.2 This analysis should include an overall analysis of the effects on the economy of the complete strategy and a detailed analysis of the individual proposed measures. Business New Zealand proposes to seek advice from appropriate Departments as to whether such analysis has in fact been undertaken, in whole or in part. We are aware of the work EECA proposes to commission from Infometrics and have indicated our willingness to assist with that work. We are concerned, however, that the intended time frame may inhibit the detailed analysis we firmly believe is required.

10.3 We would also request that the consultation period be extended. The detail of the modules is such that we believe parties directly affected by elements of the strategy should be advised of those elements and their input sought. The direct involvement of these parties will be critical to the success or failure of any desired energy efficiency measures.

## **Appendix 1**

### **Summary of NZIER Report on the NEECS**

New Zealand exhibits a high level of energy intensity. This is not necessarily a bad thing. For example, New Zealand is a long, narrow, sparsely populated country and accordingly, transport is a high cost component for most businesses. Furthermore, those large manufacturing activities that have been attracted to New Zealand are largely here due to the relatively low cost energy resources. Overall, our reliance on the primary sector, together with the type of manufacturing that is undertaken, means that New Zealand's pattern of energy use is not typical of other developed countries. Access to a growing supply of energy inputs has therefore been critical to New Zealand's economic well-being.

Each country has particular advantages and disadvantages. New Zealand has relatively few advantages, particularly in manufacturing. However, the one advantage that New Zealand does have over other countries has been access to energy at reasonable cost. This has given us an advantage over other countries in producing commodities that require a high level of energy intensity either in processing or transportation.

Dairy, forestry and meat are three of New Zealand's main commodity industries. Each requires extensive movement of heavy goods around the country, and when further processed in New Zealand, require considerable further inputs of energy. Accordingly, given the relatively large share of these sectors in the New Zealand economy it is not surprising that New Zealand's level of energy intensity (national average of kilojoules of energy used per dollar of GDP) is above the average of other OECD countries.

New Zealand therefore relies heavily on a key competitive advantage – energy – for economic prosperity. However, the Draft Strategy incorporates measures that will constrain, or decrease, energy use thus effectively constraining or reducing the only significant area where New Zealand has a competitive advantage. Although it might be desirable in the long-term for New Zealand to reduce its reliance on commodity sectors, the reality is that it would be extremely difficult and expensive to alter New Zealand's competitive advantage given its resource endowments.

New Zealand lacks the ready ability to substitute energy consumption with other inputs, such as additional capital investment. This is because we are strongly constrained by our current account – we have a limited ability to fund additional inputs of goods or capital for the purpose of reducing our use of energy resources.

To be successful, the implementation of the Draft Strategy would need the substitution of other inputs such as capital, labour and productivity in place of energy to reduce our consumption of energy or the ratio of consumption to output. Alternatively, or as well,

the substitution of fossil-based energy resources with renewable energy resources would be required.

Put simply, this means that New Zealand would replace an input (energy) that we have in relatively plentiful supply, with inputs (such as capital, skilled labour, and renewable resources) that New Zealand is relatively short of.

Given the relative importance of energy supply to New Zealand's economic performance, such a strategy would have greater relative economic costs for New Zealand than for most other countries.

To maintain economic growth and prosperity while achieving higher levels of energy efficiency, either higher levels of capital investment or higher levels of labour productivity will be required.

NZIER modelled the costs of additional investment that would be required to keep the trend rate of GDP growth unchanged. To quantify the size of this additional investment two scenarios were run (a reduction in the energy-GDP ratio by 20% from 2000 to 2010, and a reduction in the absolute level of energy consumption by 20% from 2000 to 2010).

It is estimated that investment would need to grow by 19% and 25% per annum respectively to maintain GDP growth at 2.5% per annum. To substitute capital for energy (alone) would therefore require phenomenal investment growth, and it is totally unrealistic to expect this to happen.

NZIER also modelled the cost of capital. They concluded that the overall net present value to negative \$2 billion and negative \$4.9 billion respectively. These results indicate clearly that the costs in the undertaking additional capital investment far exceed the energy usage and tax savings accompanying any reduction in energy consumption.

These results can also be viewed in terms of the likely decline in GDP growth that would result given the macroeconomic constraints on the overall level of investment that could be sustained in New Zealand.

Achieving the energy efficiency targets set out in the Draft Strategy would reduce New Zealand's GDP growth by approximately one percentage point every year. This would mean by 2010 New Zealand's GDP would be approximately \$17 billion in today's prices below what it would have been without the implementation of the targets set out in the Draft Strategy.

In reality, due to the nature of trade patterns exhibited in New Zealand, the adjustment costs would be even more substantial. In place of higher energy prices, and with a limited ability to substitute other inputs in place of energy consumption, New Zealand is likely to face a sharp downturn in both medium-term output and in employment.



