

# Energy Submission

30 March 2007

This Submission is prepared by *Sustainable Future* and is a generic response to the following five New Zealand energy submissions listed below. There are a number of linkages and common gaps, consequently we have written one response to all five.

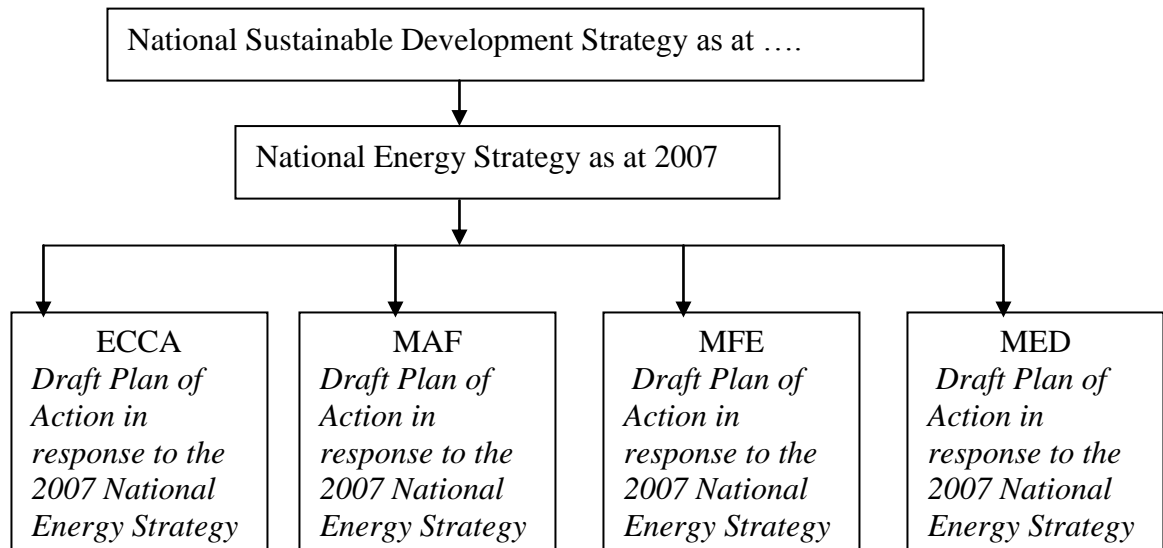
1. Ministry of Economic Development: Powering Our Future: Towards a Sustainable Low Emissions Energy System - Draft New Zealand Energy Strategy to 2050
2. Ministry for the Environment: Measures to Reduce Greenhouse Gas Emissions in New Zealand Post-2012;
3. Ministry of Agriculture and Forestry: Sustainable Land Management and Climate Change;
4. Ministry of Economic Development: 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;
5. Energy Efficiency and Conservation Authority. Draft New Zealand Energy Efficiency and Conservation Strategy.

## Executive Summary

*Sustainable Future* wishes to be heard at each of the public hearings.

*Sustainable Future* supports the efforts to create a National Sustainable Development Strategy (NSDS). We believe that it is critical to develop a hierarchy of strategies, so that New Zealand has one NSDS, which links into one long-term energy strategy for New Zealand, which then breaks down into a number of strategies that fit within the role of an entity e.g. ECCA. In our view the current process advocated in these submissions indicates a very ad hoc and inefficient response to the management of a very critical resource. It is our desire that the current process, being a bottom-up process, results in an overall energy strategy which fits in with a national vision and strategy for the long term view. Hence, although the process is of concern, it is our hope that the overall outcome may result in a logical hierarchy of strategies. For example, we envisage a framework could look like Figure 1.

**Figure 1: Possible Framework**



## **Sustainable Future**

*Sustainable Future* promotes the joint objective of sustainability and long term thinking. It was created by Wendy McGuinness to ensure an informed dialogue occurs around decisions that have a long term impact. *Sustainable Future* has recently launched a two year research project, Project 2058, in order to create a vehicle for a future thinking New Zealand ([www.2058.net.nz](http://www.2058.net.nz)).

The website ([www.sustainablefuture.info](http://www.sustainablefuture.info)), established late in 2004, provides information for the general public. It states seven reasons why sustainable development information is important:

- If we want to brand countries like New Zealand in the global market, we need to report our performance and prove that those claims are credible.
- If we want long term economic performance, we need to effectively manage our resource base, in particular our people and our environment.
- If we want to protect future generations, we need to know what we are protecting, for whom and why.
- If we want to make long term decisions, we need to know what we are trading off, for what, for whom and why.
- If we want to manage risk, we need to know what risks we are taking, for whom and why.
- If we want an effective market, we must promote and applaud innovative approaches and mechanisms that attempt to meet the information needs of consumers, employees, investors, service providers, communities and/or regulators.
- If we want consensus, we need information to be relevant, complete, cost-effective and able to be independently verifiable.

## **Critical Success Factors of Energy Supply**

In understanding energy as a resource, it is critical to understand how energy is important in society. This is not simply an input into the day to day lives of New Zealanders, but by its nature, it has had a significant impact on the broader outcomes, like social equity, health and safety, regional development etc. In order to be successful, the delivery of energy must meet a diverse and often conflicting set of criteria. In our view this would include the following critical success factors:

1. Accessible to all
2. Affordable, so that those less well-off in society are able to afford heating, lighting etc.
3. Consistently supplied (e.g. unlike the South Island community cut off last winter)
4. Consistent quality (e.g. so that appliances and computers are not effected by surges)
5. Clean (e.g. minimise carbon deposits into the atmosphere)
6. Green (e.g. maximises biodiversity, does not use non-renewable resources)
7. Visually pleasing (e.g. infrastructure is not put in places that are inappropriate and that effort is taken to make assets attractive)
8. Sound effective (e.g. not noisy)
9. Storage (e.g. ability to store energy to increase capacity and ensure consistency of supply)
10. Long term vision and strategy (e.g. a long term vision that can be periodically reviewed, re-aligned and updated in a measurable and relevant manner)

## Strategies

### 1. **Ministry of Economic Development:** Powering Our Future: Towards a Sustainable Low Emissions Energy System - Draft New Zealand Energy Strategy to 2050

This appears to be the over-arching draft strategy for energy – as in , it states ‘*The strategy sets out the government’s vision for the New Zealand energy system*’. We were particularly pleased to note the reference to 2050, but were unsure how this applied in the draft document. Although 2050 is used in the title, it is referred to only once within the body of the Draft Strategy.

*While the above figures focus on the period up until 2030, there is significant potential for further emissions reductions out to 2050 in line with technology shifts and expected advances in carbon capture and storage. (page 24)*

We noted many of the graphs forecasting the future only went to 2030. For example: Tables 4.1, 4.2, 4.3, Figure 4.4, and Table 5.1. We also noted that significant information, like that contained in *Table 3: Planned generation projects* only went to 2009. In addition to future information, we would have welcomed an analysis on how energy has changed in the last fifty years as a way of understanding how energy could change in the next fifty.

Secondly, we would have liked more information on the length of time this draft strategy was planned to be in place and how, when and by whom outcomes were going to be measured and reviewed.

We note in reviewing past strategies:

- **2003 Sustainable Development Programme of Action:** The objective was to strengthen the way government operates by applying a set of guiding objectives and principles across the government sector. Four priorities were identified for the first programme of action: water quality and allocation, energy, sustainable cities, and child and youth development. For energy, the overarching goal was “to ensure the delivery of energy services to all classes of consumer in an efficient, fair, reliable and sustainable manner”. The desired outcomes named in the policy relate to energy efficiency, renewable energy and “a secure supply of electricity”. This draft strategy would have benefited from explaining how the *Sustainable Development Programme of Action* work provided a platform for the creation of this draft strategy. However, there is no mention of the 2003 Programme of Action anywhere in the strategy.
- **2003 Electricity Commission:** Much of the language of the Sustainable Development Programme of Action is again repeated in the Government Policy Statement on Electricity which provides the main agenda for the Electricity Commission. Formed in 2003, the Commission is “a Crown entity established under the *Electricity Act* to oversee New Zealand’s electricity industry and markets” (page 76). The Commission’s task is to ‘oversee’ the Electricity market, to regulate and ensure that the power system is adequately reliable (page 42). To do this, the strategy suggests a number of tasks that are listed in a number of places in the document, namely:

- *Setting and ensuring compliance with a wide range of technical requirements, such as maintaining acceptable voltages and power system frequency. (page 42)*
- *Ensuring investment in the transmission grid is timely and adequate to meet anticipated needs, which are determined according to minimum standards and/or a cost-benefit test. (page 42)*
- *Ensuring electricity demand can be met at all times without an emergency conservation campaign except in very dry years (worse than a 1-in-60 year drought). (page 42)*
- *Consultation processes (page 52)*
- *Reduce the number of avoidable disconnections by improving communication between retailers and social agencies. (pages 72 & 73)*
- *Making sure low-income consumers are able to access any information or tools available – such as advice on energy efficiency practices and technologies – to help them meet their electricity costs (page 9)*
- *Revisions to the Government Policy Statement to the Electricity Commission to ensure a more robust transmission grid (page 9)*

We have a concern that these tasks are not clarified in one place in the consultation document and that the measurement, review and realignment process are not specified.

Once again there is no clear format as to how the work of the Commission fits into this draft strategy, which suggests linking within the industry may be severely lacking.

Lastly, although the *Introduction* (page 5, 1.2) notes the linkages to other policies, we consider that energy is becoming significantly more linked to the wider objectives of the community. Consequently all significant initiatives require a cost/benefit assessment against the goals of the country. This is not a new concept. In 1978 the *Commission for the Future* commented:

*“...the choices made in the energy field are likely to affect us for thirty years or more. For this reason they are intimately bound up with the several major directions of development which can be chosen ... They cannot be divorced from a more fundamental look at the goals of the nation generally.” - Goals and Guidelines – an Energy Strategy for New Zealand” and “Planning Perspectives”, page 2 (Appendix 1).*

The choices we make must be seen in terms of long term gains in capacity and effects. The review by Helio International 2005/2006, states:

*“The present government appears to have traded away sustainability in favour of growth and short-term wealth.” Energy and Sustainability Development in New Zealand, page 1.*

We therefore conclude that a very narrow view of time has been considered in preparing this draft strategy and a significant opportunity to complete long term thinking for the benefit of New Zealand has been missed. There has been an enormous amount of work done previously on long term planning for energy in New Zealand; however, it seems none of this information has been taken on board. We consider one way forward is to produce another draft strategy based on the results from the four discussion papers (mentioned below) and more information on past performance and future thinking to 2050.

**2. Ministry of Economic Development:** 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

We welcome the scope of this paper, but note the lack of figures or statistics from both a past and predictive stance. If it is indeed the case that we have minimal statistical information, we would suggest that government needs to ensure cost-effective and relevant information collection is a priority. Rather than respond to each question, we acknowledge the range of policy measures being considered (page 12) but respond directly to the key questions in section 6 (page 49).

1. What key objectives should steer the choice of transitional measures in the stationary energy supply sector?  
*Sustainable Future* considers that a full cost benefit analysis needs to be completed in order to determine the optional measures. In our view, this discussion paper does not go far enough both in costs/benefits or breadth (e.g. the total cost) to determine an optimal solution.
2. Who should bear the costs of measures – emitters, consumers or the government?  
*Sustainable Future* considers the ‘polluter pays’ principle must be adopted, in which case emitters bear all the costs. Hence an informed consumer, the adoption of full product pricing and an open market should be the objectives of government.
3. Certainty of price or certainty of outcome?  
Table 3 is useful, however, considering the importance of the issue, we consider more analysis and supporting evidence is necessary to determine the optimal solution.

Overall this discussion paper is a good starting base for discussion, but requires further detailed analysis in order to reach well constructed conclusions.

**3. Ministry for the Environment:** Discussion Paper - Measures to Reduce Greenhouse Gas Emissions in New Zealand Post-2012

We welcome this discussion on the post-2012 options with the purpose of developing consensus on the direction of longer term climate change policy. We appreciated the background and overview contained in the *Introduction* (pages 8-10). We would have liked to have had the time to respond to these questions in more detail. We have requested an extension in order to provide a more detailed response.

**4. Ministry of Agriculture and Forestry:** Discussion Document - Sustainable Land Management and Climate Change

We welcomed this discussion on land management within New Zealand and have completed the questionnaire. We commend the adoption of the four pillars, in particular the opportunity to capitalise on business opportunities and agree in particular with the note at the bottom of Figure 1 (page 16) recognising that “*New Zealand’s response must be aligned with our national interests*”. We consider there are significant benefits for exploring options now, in order to be prepared for post-2012. An important aspect will be quality measurement and monitoring of the options and we were unsure when these issues were to be addressed?

We also note that although this document rightly defines its boundary to *on-farm and in-forest issues*, it is important to appreciate that urban New Zealand do consider they have rights over rural land. This was aptly summed up in a recent article in the New Zealand Herald<sup>1</sup>, which stated:

*There is a gap between what we as farmers feel is the impact we have on the environment and the perception held by urban people. We have to take notice of what they think. We have to realise that they may not understand our industry, so we have to explain it better to them...What was a business we thought we had 100 percent control over is now one we have to share the emotional ownership of with others”* Garth Coleman, Dannevirke sheep and beef farmer

Consequently, the statement on the front of the document “*A public discussion document for those with an interest in New Zealand’s forest and agriculture sectors*”, should, but may not necessarily ensure you obtain the urban New Zealand interest in the forest and agriculture sectors.

Lastly, we have concerns whether the outcome of this paper conflicts or fits within the frame of the *Programme of Action*. We note Annex 1 discusses *central government programmes relevant to the Plan of Action* and Annex 2 refers to *Private sector initiatives relevant to the Plan of Action*. We consider that the number and breadth of the strategies around energy to date are confusing and appear not to follow an agreed framework.

## **5. Energy Efficiency and Conservation Authority. Draft New Zealand Energy Efficiency and Conservation Strategy – Making it happen**

*Sustainable Future* appreciates the challenge of minimising use, maximising efficiency and minimising energy from non-renewable resources, hence we support the fundamental principles outlined on page 4. We also agree strongly with the purpose of improving energy information and monitoring. This ‘lack of relevant meaningful information’ is a key issue and its importance is sorely missed in the earlier four above-mentioned discussion papers. We have significant concerns that the energy gaps identified in the reviews undertaken in 1996 and 2002 do not seem to have been filled and believe ‘if you cannot measure it, you cannot manage it’.

*“Such an action plan depends on good information about our current energy use, future trends in how we use energy, the savings that are possible and the costs to achieve those savings.”* Jeanette Fitzsimons, *Draft NZ Energy Efficiency and Conservation Strategy 2006*, page 2

We also note, that unlike the four above-mentioned papers, this paper has tried to benchmark itself against international countries (page 59) and does look back in the past, to learn about the future (page 64).

Where we do have significant concerns about this paper is the lack of any longer term vision (e.g. in 50 years). We note the application of predictive information to 2030, but that seems to be based on a business as usual approach (with more efficiency), rather than a significant change in the landscape as specified in the Stern Review. We expected to see acknowledgement of a major transition period in the next 10 years and what this could look like.

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<sup>1</sup> Doing the Right thing for Pasture, 15 March 2007  
*Sustainable Future*

This paper is very useful in that it identifies measures and the entities responsible for actions. However the absence of information in the columns in 'Beyond 2012' tells the real story.

## **Conclusion**

*Sustainable Future* appreciates the opportunity to respond to the current thinking in central government on this important issue. We acknowledge that this is a complex and challenging area where the landscape has changed significantly. We hope that this is the beginning of a process that focuses on transparency, quality information, and measurable goals. We consider that government has a long way to go to provide a 'total package' that will deliver New Zealand a sustainable future in regard to energy.

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