

Submission to the New Zealand Energy Strategy

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Introduction

Energy is the most important ingredient to how our society and economy functions. A well-thought through energy strategy that takes a long-term view is therefore critical. Investments made into energy systems, technologies and infrastructure often 'lock us in' for a long time, hence presenting risks and opportunities.

In the following, I will focus my feedback on question 3: *"Do you have any comments on the proposed goal, priorities and 12 areas of focus?"* This is the most fundamental question and the other questions are of a more technical nature.

Goal and priorities

The way the overarching goal (p. 6) is phrased sounds alarming to me in a number of ways:

1. Economic growth: As outlined in the NZES's foreword by the Minister, the overarching goal of the Government is to grow the economy - and this goal is strongly reflected in the energy strategy. Energy has traditionally been an important factor for economic growth, as commonly measured through GDP. However, it appears that the NZES advocates economic growth as a goal in its own right, rather than focusing on the ultimate goal of increasing the well-being of New Zealanders. It is now increasingly recognised that such a – more socially framed – goal can be achieved via alternative pathways, for example redistribution of wealth, increase in quality of life and redesign of society.

Infinite economic growth is not possible in a world of finite resources and to continue to succumb to this fallacy poses great risks for both society and economy. It is also a rather old-fashioned approach that has substantial pitfalls, as evident in the global financial crisis of 2008/09. So, I would argue that contrary to the perspective of economic growth providing exclusively "flow-on benefits to society" (p. 2), it is a Trojan horse that is associated with a wide range of undesired (and sometimes unexpected) side effects, that often impact on marginalised parts of society, with the positive effects rarely being evenly distributed. The NZES appears to be rather uncritical of these issues.

2. Abundant energy: The NZES explicitly points to the abundant energy resources of New Zealand. While New Zealand is indeed very lucky with its ratio of energy resources to population, it is by no means granted that energy is available without substantial costs. The advocated petroleum exploitation in particular poses substantial environmental risks. Coal is another energy source that, while reasonably abundant in New Zealand, entails local and global environmental impacts. Most countries (e.g. in Europe) seek to reduce their consumption of coal.

Even the exploitation of renewable energy sources, while in theory abundant (like the sun) requires substantial investments and trade-offs between economic, social, cultural and environmental dimensions. Thus, to imply that energy is abundant and can be harvested without any further (negative) implications is a dangerous misrepresentation of the wide range of issues associated with energy production and consumption.

Finally, while the NZES recognises that there will be increasing pressure on global oil resources, leading to price volatility and increases, I believe that the impacts of such a 'peaking' in oil production are understated. The belief that the market will respond

efficiently is overly optimistic, as potentially sudden increases in oil prices will not be matched with an immediately available supply of alternative fuels. Investments to compensate for potential decline rates of between 3-6% p.a. will need to be substantial and made today to be able to cover (at least some of) the shortfall of petroleum fuels. Our inability to do so may trigger another global recession with severe consequences for New Zealand and an even lower likelihood of being able to invest into alternatives at the scale required. The NZES assumes that a scenario of oil scarcity is a “long term” prospect (p. 11). I do not share this view. In summary, I suggest that a proactive approach that assumes short to medium-term price increases and a certain level of market failure is a safer approach than relying on long-term availability of (cheap) oil and adequate market responses.

3. The environment: The current consideration of the environment represents a rather instrumental perspective as it is only “recognised for its importance to our New Zealand way of life”. It does not convey any other values associated with ecosystem services and biodiversity. This is an oversight with potential long-term implications. This view is also confirmed by a statement made on p. 2 in relation to the “international economy” that will “reward efforts to reduce greenhouse gas emissions” (see also p. 17 for conditional action on GHG reduction). Not so long ago, New Zealand claimed to be a leader in its action on climate change, and now we openly admit that our efforts are (only) motivated by responses in the international economy (not even society, but economy)? This is a significant step back in New Zealand’s role as a ‘global citizen’.
4. The lack of emphasis on conservation: I was surprised to find that the goal does not contain explicit reference to energy efficiency and conservation. The goal implies a ‘predict and provide’ approach rather than a ‘reduce where possible and only provide where necessary’ perspective. As such it completely changes the sequence of priority as I would recommend it and as many other countries in the OECD are pursuing. While some reference to efficiency has been made (and conservation is mentioned in various places of the NZES and the NZEECS) it is not phrased as an explicit goal in its own right, but more a way of using the energy that is provided. With a greater emphasis on efficiency and conservation the target of 90% electricity from renewable energy sources is not “aspirational” but totally achievable. In fact, I would put such a target as a mandatory step for New Zealand to be in line with other countries’ goals and targets. The non-committal way this target is phrased (“must not be at the expense of the security... p. 9) is disappointing. The priorities on energy efficiency (p. 14) lack depth and overlook a number of important opportunities, for example in relation to rail transport and coastal shipping.

As an alternative I would suggest that the goal of a NZES should be to:

Develop energy systems that enhance the well-being of New Zealanders and provide a long-term portfolio of a range of sustainable energy sources, in addition to increased investments into energy efficiency and promotion of energy conservation.

It would be very interesting for the general public to know how the goals and priorities are backed up with specific investments and policies. For example, the statement on p. 10 (*“Government research funding will support research to improve petroleum and mineral extraction, energy security and efficient and affordable energy us. Research in the areas of bioenergy and geothermal energy are also priorities”*) raises the question about the allocation of funds to each of these priorities. The paragraph gives the impression that considerably more funding will be allocated towards fossil fuel exploitation compared with renewable energy source development. More detail on this would be helpful.