



MAJOR ELECTRICITY USERS' GROUP

4 August 2006

Mr Stuart Calman
Manager, Energy and the Environment
Ministry of Economic Development

By email to nzes@med.govt.nz

Dear Stuart

Comments on NZ Energy Strategy draft Terms of Reference

1. Thank you for the letter of 19 July inviting comment on the draft terms of reference for the New Zealand Energy Strategy (NZES) released by the Minister 4 July 2006. Answers to the four questions in the addendum to the MED letter follow.

Question 1: Are these the main challenges that the NZES should focus on?

2. No; a focus just on energy security and climate change is too narrow.
3. Disappointingly the papers released on the NZES draft Terms of Reference and Climate Change Programme, along with the concurrent Framework for a replacement NEECS published by EECA, fail to mention the Government Growth and Innovation Strategy objective of returning New Zealand's GDP per head of population to the top half of the OECD. MEUG suggest the NZES Terms of Reference specifically refer to the Government Growth and Innovation Strategy.
4. The second paragraph of the Ministers media statement of 4 July provides a better framework for describing the challenges and trade-offs that need to be considered, ie
 - a) Reliability and resilience;
 - b) Environmental responsibility; and
 - c) Fair and efficient prices for energy for current and future generations.
5. MEUG suggest the NZES should focus on the multiple and often conflicting challenges of how the energy sector in New Zealand over the next 50 years will be reliable, resilient, environmentally responsible and have fair and efficient prices for current and future generations.

Question 2: What do you think are the key questions that the NZES should be exploring?

6. Looking back over the last 50 years, to 1956, energy demand and supply in New Zealand has changed significantly due to:
 - a) Changes in living standards.

For example now more cars per household, more comfort level demanded by households and the household stock is better insulated.

- b) More people now work in offices than factories and farms.
- c) Significant changes in technology for all energy forms – largely imported although New Zealand did for several years lead the way in using geothermal energy;
- d) Property rights and institutional arrangements.

In the 1950's and 1960's the New Zealand energy sector was dominated by either central government or local government owned energy entities, a few oil import franchises and some private coal mines. Ownership of energy sources and production facilities is now a mix of private enterprise and central and local government ownership trading in a range of market types including regulated, self-regulated and unregulated. The drivers for the evolution of these property right and institutional arrangements are complex but important to understand because they serve as a guide to what might happen in the future.

For example the commencement of a competitive wholesale electricity market in New Zealand in October 1996 was possible because computing and information systems had developed to the point that allowed implementation of the theory of a half hour objective function to meet real time demand at over 200 nodes by minimising generator offers over a modelled transmission grid.

- e) Unexpected shocks (detrimental effects) and windfalls, eg
 - i) The oil price rises of the early 1970's; and
 - ii) The discovery and then development of the Maui gas and condensate field.

7. Given the above experience the questions the NZES could explore are:

- a) How might household demand change in the next 50 years?
- b) What are the feasible scenarios for non-household demand in the next 50 years?
- c) How technology might change and are the channels to import new technologies in place?

Should New Zealand be focussing publicly funded R&D on a few technologies? And if so what is the optimal level of publicly funded R&D and how is it allocated?

- d) How could different future institutional arrangements affect demand and supply for each form of energy? For example:
 - i) In the electricity sector how would development of water property rights and trading mechanisms affect hydro power station development?
 - ii) Will the trend over the last 50 years towards more market mechanisms continue? How will the energy market and GDP be affected if the SOE generators stay as is or become privatised?
 - iii) How will the RMA as the main institutional mechanism to weigh development against environmental affects change over time? If the RMA evolves in different ways what will be the effect?
 - iv) An important uncertainty is climate change and how institutional arrangements might evolve. The NZES should ask the questions:
 - What are the ranges of possible outcomes to the question of whether climate change is real?
 - If climate change is real when will it impact New Zealand? and

- What policy mix has the least cost impact on GDP?

The recently released work by Solid Energy on this question noting the option of more R&D is a useful contribution to this debate.

- e) What possible shocks could occur and how resilient would the economy be? And what possible windfalls might occur and how flexible would the energy sector be to take advantage of those?

Question 3: What are the foremost areas for investment in New Zealand's sustainable energy future?

8. This question could be seen as government wanting to pick winners and promote them. This should not be an objective of the NZES.
9. The NZES provides an opportunity to clarify how the sometimes conflicting objectives of government will be resolved. For example the Governments Growth and Innovation Strategy has a strong focus on improving GDP whereas most climate change policies being investigated have a negative impact on GDP.
10. Another recent example of conflicting government occurred with the Waitaki Allocation Board process where on the one hand government was supportive of renewables (Project Aqua) but on the other hand appeared to concede to regional pressures that wanted ad hoc allocation rather than market mechanisms to allocate water.

Question 4: How can the NZES contribute to the improvement of energy efficiency and use of New Zealand's renewable energy sources?

11. In two ways. First, NZES will assist NEECS if it helps identify at a broad level possible barriers to the optimal level of energy efficiency and optimal level of renewable generation. NEECS itself should then take those leads to clarify, rank and develop tactics to remove those barriers.
12. Second, the NZES should assist government decide budgeting priorities. For example to review the current mix of funding for R&D versus EECA versus examining how to improve the wholesale and electricity markets.

Concluding comments

13. The NZES provides an opportunity for the Government to set out policy directions and clarify some current policy inconsistencies. The NZES to be finalised next year should be the foundation for regular, say every 2 years, updated NZES to be published taking into account changing events. Subsequent revisions of the NZES should also aim to achieve a bipartisan consensus on key issues and policy decision milestones facing New Zealand. This will be much more durable and useful than expecting the initial NZES to be a once only plan that will set the direction of the New Zealand energy industry for the next 50 years.
14. MEUG look forward to confirmation of the workshop to discuss NZES in mid August and the consultation round on a draft NZES in September.

Yours sincerely



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