ENVIRONMENT AND CONSERVATION ORGANISATIONS OF NZ INC.



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Comments on Consultation on Energy Demand and Generation Scenarios (EDGS) 2023

Introduction

The Environment and Conservation Organisations of NZ (ECO) is the national alliance of 43 groups with a concern for the environment and conservation. We were established in 1971-72. Some of our member bodies are themselves federations or multiple groups. Many are area-based, some are focused on specific species or activities or impacts, some are not actually environmental groups but share our concerns.

ECO has followed issues of conservation and environmental management and practice, law and policy since its formation in 1971-2. We have member groups from all around New Zealand.

Consultation deadline uncertainty

ECO requests that MBIE abandon using 12am and 12pm to indicate deadlines, since we and no doubt others found that profoundly confusing. We discovered that you had closed the consultation on the Energy Scenarios at midday, you having specified a deadline of 12pm.

We do now understand that you may have an authoritative basis for this, but we ask you to consider how confusing 12pm can be. We thought you meant mid-night when you meant midday.

Have a look at this string of discussion to see how unintuitive 12pm is, and how people see it in quite opposite ways: <u>Is midnight 12pm or 12am?</u>

It is apparent there is a range of understandings as to what 12pm means, and even though you may technically be correct that 12pm is midday, this is not widely agreed or understood. Pedantry aside, we think for the avoidance of confusion, especially of busy people and the public, MBIE and the government at large should insist on no usage of 12pm or 12am but instead of "midday" or

"midnight". That would remove confusion. We have found ourselves out of time for making a submission on a topic that we think to be important and on which public submissions were sought.

We invite MBIE and the government more widely to adopt "Midday" or "midnight" as part of the government's commitment to plain English. We suggest that MBIE and other government agencies also provide a 5-10 minute leeway so that those who are a little bit late can avoid losing their opportunity to submit for minor technical hitches etc.

We would be grateful for a response to this request.

Comments on the Energy Demand and Generation Scenarios

We have a number of generic suggestions on the Energy Demand and Generation Scenarios:

- 1. The modelling should only include scenarios which do not include fossil fuel generation to meet with climate change goals and commitments.
- 2. The modelling should allow for separate declining prices for wind and solar. Both have increased in size and efficiency. Solar continue on a declining cost curve with improved efficiency and lower costs per watt annually. Only the innovation scenario includes a combined reduction in solar and wind.

We note that MBIE comments: "The combination of declining wind technology costs and low discount rates caused the LCOE of wind to reach as low as \$54 per MWh. However, the tool does not allow for the falling cost of both wind and solar in the future." [Interactive Levelised Cost of Electricity Comparison Tool].

- 3. The growth scenario cannot be taken seriously as it includes an increase in gas availability when we need to be phasing out gas use quickly to avoid climate destabilisation. All scenarios should be based on a reduction in gas and other fossil fuel use.
- 4. The reference prices suggested by the Climate Commission are likely to be an underestimate of carbon prices by 2050.
- 5. We cannot see why the cost of grid tied wind and solar will increase. Solar, in particular, is on a declining cost curve with innovation driving greater output for the same size panel at a lower price. Further innovation with greater efficiency is also very likely with current reported science and technologically innovation the innovation scenario is the only one that matches current trends. Our members experience is of lower prices on an annual basis of solar systems.
- 6. We cannot see why peak demand would increase under an innovation scenario. That scenario surely includes smart measures to smooth peaks and lower costs of solar will add to more off-grid and grid tied solar systems with batteries. This is consistent with a long-term resilience scenario, particularly for rural areas and towns and cities with long transmission grid connections.
- 7. In industrial and commercial then innovation scenario seems the only one matching likely long-term trends.

- 8. MBIE should be modelling for a phase-out of Ammonia-Urea production as there is a change in current farming practices towards more innovative and regenerative agriculture, particularly as farmer reduce methane emissions to meet climate change and market demands.
- 9. While closing Tiwai would have a number of benefits for the electricity system the approach you propose seems appropriate.
- 10. The scenario capital price for solar seems too high. The Miller (2020) analysis is over 3 years old and price has declined while the efficiency of panels has increased. The Greenpeace high scenario needs to be looked at again.
- 11. ECO does not see green hydrogen as a realistic or appropriate scenario for New Zealand. Hydrogen is not going to replace gas in home use and it is highly inefficient when compared to electricity for vehicles. Greater use in hydrogen would need three times the electricity required for electric vehicles – this raises other environmental concerns that the Government has yet to consider. Hydrogen may be needed in a few unique uses where electricity is not a replacement for carbon from fossil fuels eg in making new steel. Increased recycling, recovery and re-use of steel avoids the need for fossil fuels as the NZ Steel project shows.
- 12. On the next steps, ECO considers there is a serious problem with the electricity market and system in New Zealand. It has worked against new renewable energy and pricing models that put barriers in new investments. Wind farms have been consented under the Resource Management Act but most have not been constructed so far. ECO considers changes are not needed to the RMA or its replacement, what is needed is an electricity which provides fair pricing structure and creates an incentives to invest in renewable energy and batteries, and end fossil fuel generation. We need to do this for the sake of the climate and future generations.

If you require further information on these comments please contact Barry Weeber

Privacy of natural persons

Nga mihi

Barry Weeber Chairperson