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Low-emissions economy

Thank you for the opportunity to input into the *Low-emissions economy - issues paper* provided by the Productivity Commission (**the Commission**).

Genesis Energy (**Genesis**) believes that taking care to explore all options for moving a complex interdependent economic and social eco-system towards a low-emissions economy is a meaningful shared goal, and welcomes the chance to participate in the ongoing discourse on delivering a sustainable low-emissions economy for the benefit of all New Zealanders.

Today's policy makers have a huge task in determining the path forward on emissions reduction that is the best fit for tomorrow's generation of New Zealanders. They must consider the costs and benefits of all options, and weigh up the potential unforeseen economic and social waterbed effects of any decisions.

New Zealand's movement towards a low-emissions economy will be influenced more than ever by global technology changes, and while we acknowledge there is no 'off the shelf' or simplistic immediate solution, it will be important not to be carried away by international debate that may not recognise New Zealand's existing advantages.

Instead we must take the opportunity to design a unique approach to a global concern. Where other jurisdictions are focussed on reducing emissions from electricity generation, New Zealand already has a low-carbon, renewables-dominated generation portfolio that can be our best strategic advantage, providing a springboard for making gains in emissions-intensive sectors including transport and agriculture.

Energy sector contribution

New Zealand's energy sector has been focused on the role it has to play in a low-emissions economy for some time now.

As New Zealand's largest energy retailer, a provider of hydro and wind generation and the country's largest provider of thermal electricity generation, Genesis thinks about the energy sector's role in the context of the World Energy Council's framework of the energy tri-lemma (**tri-lemma**) – the triple challenge of providing reliable, affordable and environmentally sustainable energy. This framework acknowledges the tensions and trade-offs that need to be made between the three elements for a country's social and economic prosperity to progress and develop.

New Zealand's electricity generation has become increasingly renewable, with ongoing investment in renewable technologies and the retirement of redundant thermal plant enabling New Zealand's share of renewables for electricity generation to grow to the third highest in the OECD at approximately 85 per cent. Electricity generation is now responsible for just five per cent of New Zealand's total greenhouse gas emissions.

These are outstanding achievements on the global stage and a big tick in respect of the 'environmentally sustainable' requirement of the tri-lemma. Genesis is proud of the sector's achievements and is committed to contributing to further reducing emissions through the ongoing optimisation of generation assets and adoption of new technologies (e.g. batteries and solar) that will benefit New Zealand consumers.

100 per cent renewables?

Genesis does not currently see a case for pursuing a fully renewable energy system (100 per cent renewables) because of the significant levels of complexity and economic risk this would incur.

New Zealand's limited thermal capacity supports the country to be as renewable as it is currently by providing much needed baseload and peaking electricity generation when the rain stops falling and the wind stops blowing. This is crucial in keeping the lights on for New Zealanders (and maintaining a 'reliable' energy supply as per the tri-lemma requirements). Retiring all thermal plants to achieve 100 per cent renewable generation capacity, with currently available technologies, would only be possible through significantly overbuilding renewable-only capacity to account for dry periods or weather interruption.

This option risks the reliability of our electricity supply and would expose consumers to much greater costs (inconsistent with the 'affordable' requirement of the tri-lemma). It could dampen uptake and innovation in emissions-intensive sectors reliant on secure and affordable electricity, including sectors where there are opportunities to be maximised right before our eyes e.g. transport and agriculture. We must turn our mind to these now.

Accelerating electromobility

At this time, Genesis considers the next logical step for New Zealand to provide stimulus and real commitment to creating a low-emissions future is in the transportation sector where long-term gains can be rapidly achieved.¹

New Zealand's current road transport emissions are amongst the highest in the OECD and represent 18.4 per cent of total emissions, of which 90 per cent are from road vehicles. With strong leadership, New Zealand now has the opportunity to join Norway and the Netherlands in creating a clear pathway for accelerating electromobility; to reduce oil dependency, reduce emissions, and reduce congestion through the better use of technology and the electrification of all types of transport.

Electric vehicles (**EVs**), alternative mobility initiatives (e.g. ridesharing) and improvements in the electrification of public transport are all laying the foundations of change for personal and commercial transport in urban centres. We see there is a real opportunity to capitalise on the considerable consumer appetite for electromobility and accelerate the beneficial outcomes it holds through targeted interventions to create momentum.

While Norway and the Netherlands provide the leading lights on electromobility in Europe², we believe New Zealand has the opportunity to lead the way in Australasia by adopting a bold target:

By 2030, 50 percent of New Zealand's total vehicle fleet will be electric

This is ambitious, and not without challenge, but it would make the most of our ample renewable electricity generation capability and powerfully reinforce our international commitment to emissions reduction and a low-emissions economy.

Genesis considers that initiatives such as those below³ could see New Zealand well on its way to achieving substantial emission improvements from our transport fleet:

- The electrification of government and commercial fleets, urban delivery and services vehicles, and taxis;
- Hypothecated taxes on new and imported internal combustion engine vehicles;
- The removal of GST on newly registered EVs to equalise the price consideration.

¹ We consider there are great opportunities for the agriculture sector to reduce emissions but it faces difficulties in terms of readily available emission reduction solutions. While the introduction of the agriculture sector into the ETS will undoubtedly drive focus, that in and of itself does not provide a silver bullet, and if not managed carefully, could detrimentally impact the economic competitiveness of New Zealand versus other markets.

² See the announcement of a goal to reach 100 per cent of new car sales being zero-emission vehicles starting in 2025.

³ We recognise there will be some costs to the taxpayer, however, we believe this would be far less per tonne of carbon saved, and absent of the economic cost of competitiveness equivalent policies in electricity and agriculture would incur at this time.

Without the right incentive framework, New Zealand - as a small market - risks falling to the back of the adoption curve when compared to other countries that have seen fast adoption of EV technology. If as a country we choose to only allow the organic development of supply chains, dealers and charging infrastructure we risk missing an opportunity to drive a low-emissions economy while at the same time becoming international electromobility laggards.

Summary

The need to move towards a low-emissions future is clear and success will require the right regulatory mix of incentives, disincentives and desire - all while keeping businesses operating effectively and allowing for growth in employment and productivity.

Any policy direction must provide clear signals to the market, enabling better planning and informed investment decisions. This will enable New Zealand businesses to better contribute to a low-emissions future for the benefit of current and future generations of New Zealanders.

Accordingly, we encourage the Commission to undertake a detailed analysis of the transport sector as it is our view this is the area where New Zealand can best stand up and be counted.

Once again, thank you for this initial opportunity to engage in the inquiry. Genesis looks forward to further engagement opportunities and providing more detailed feedback once the first draft is made available in February 2018. Please do not hesitate to contact me should you have any questions: dean.schmidt@genesisenergy.co.nz.

Yours sincerely



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