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ERANZ submission on the Climate Change Commission's 2021 draft advice for consultation

Executive summary

The Electricity Retailers Association of New Zealand (ERANZ) welcomes the opportunity to provide feedback on the Climate Change Commission's draft advice on New Zealand's first three carbon budgets and the proposed path to 2035.

ERANZ is supportive of the goal to transition New Zealand to a net-zero emissions economy. We need to push forward quickly but with care. The scale of change required makes it vital we make the right changes – driving the largest emissions reductions at the lowest cost. If we make the wrong choices now, we'll be loading unnecessary extra costs on Kiwis now or giving future generations an even harder task because we haven't succeeded.

The Commission's analysis demonstrates we already have the tools and technology to decarbonise - if we commit to action now.

Electricity has a key role to play in our path to net-zero emissions. New Zealand is in an enviable position compared to other countries. Our electricity is already around 85 per cent renewable and we have the tools and technology needed to decarbonise and build a cleaner, more sustainable future for all Kiwis.

The affordability of New Zealand's electricity makes it easier to switch from carbon-intensive fuels to renewable power. We have the 6th cheapest electricity in the developed world, and the real price of residential electricity per kWh is at the lowest level since 2012. This is flowing through to households' overall bills, with the real average annual residential power bill sitting around a ten-year low and down more than $140 in the last six years.

Getting to net-zero emissions by 2050 will require an enormous, coordinated effort by all New Zealanders. The scale of change needed makes it vital we make the right changes – driving the biggest emissions

reductions at the lowest cost. If we make the wrong choices now, we'll be loading unnecessary extra cost on Kiwi families now, or giving future generations an even harder task because we haven't succeeded.

ERANZ agrees that while the Emissions Trading Scheme (ETS) is the key mechanism to drive a cost-efficient transition, it is not sufficient on its own – mainly where consumers face information or capital barriers to making 'efficient' choices. For example, we agree with the Commission's recommendations for regulatory action on the consumer side to boost electric vehicle uptake and aid the transition of transport to low emissions electricity.

Conversely, the case for regulatory intervention to drive higher renewable supply seems less clear cut. The move away from carbon-based fuels to renewable energy means our demand for electricity will significantly increase over the next 30 years, requiring major investment in more clean energy to meet this demand. That will not be cheap, so we need to relentlessly pursue options that give us the biggest emissions reductions for the lowest cost.

The Commission's report highlights the potential extra costs of a strict 2030 100 per cent renewable electricity target for the emission reductions gained. Even with demand increasing, the proportion of renewable electricity is expected to increase significantly. Pushing for that last few per cent could mean a massive extra cost for a small amount of emission reductions gained.

These extra costs would need to be met somewhere – either by higher power bills or higher taxes. Or they'll mean we're not supporting other cheaper and more efficient ways to reduce our emissions – like boosting the numbers of electric vehicles.

ERANZ agrees with the aim of 100 per cent renewable electricity – but the cost to consumers of trying to achieve this in too short a timeframe is significant.

Rather than focus solely on a renewable electricity target, ERANZ agrees with the Commission that a better approach would be on an overall 'New Zealand Energy Strategy'. This would give the government, industry and consumers a forum to discuss the trade-offs inherent in the "energy trilemma" of security of supply, environmental sustainability, and price. Once developed, an overarching energy strategy would guide industry investment and provide greater regulatory certainty as we tackle climate change together.

Overall, ERANZ welcomes the Commission's report as a vital input into our transition to net-zero emissions. The Commission has provided an essential evidence base with which to inform our path forward. New Zealand has successfully responded to Covid-19 by following the science, listening to experts and working together as a country. We can and must do the same with climate change.

The electricity sector has a key role to play in reducing New Zealand's emissions

Retailers are the gateway between the electricity sector and its customers. As an organisation, ERANZ is squarely focused on consumers and ensuring they benefit from a sustainable electricity market.

We support the 2050 emissions targets, and our focus is on how New Zealand can deliver the best transition for New Zealanders. That means a transition that delivers on emissions reductions at the lowest possible cost and one that doesn't leave New Zealanders behind or struggling.

Electricity has a key role to play in our path to net-zero emissions. A vital part of the Commission's plan is converting emissions-intensive activities like petrol cars and industrial milk processing to renewable electricity.

To achieve this we need to see both demand for, and supply of, electricity increase massively.

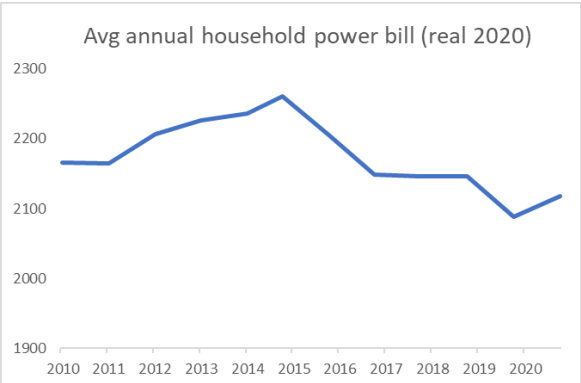
Electricity retailers have a crucial role in supporting consumers through this change – but even more, the service we can provide our customers depends on how the electricity system, and indeed the energy sector as a whole, are functioning. Because of this, our submission focuses on a range of issues across the energy sector that will affect electricity customers, not just strict electricity retail issues.

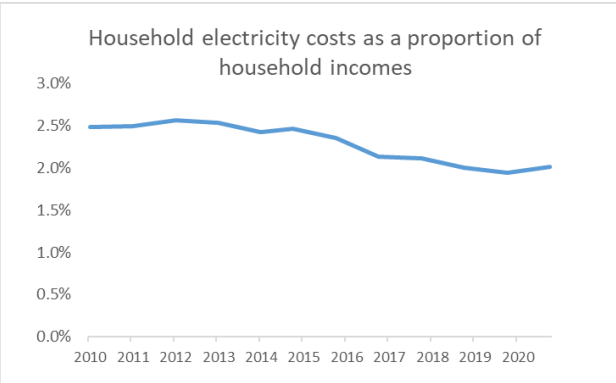
New Zealand has a relatively good starting point

New Zealand is in an enviable position compared to many other countries. Our electricity is already around 85 per cent renewable and we have the tools and technology needed to decarbonise and build a cleaner, more sustainable future for all Kiwis.

We have the 6th cheapest electricity in the developed world, and in 2020 the real price of residential electricity was at the lowest level since 2012, at 0.29c per kWh.

This is flowing through to households' overall bills, with the real average annual residential power bill sitting around a ten-year low and down more than $140 in the last six years. As a proportion of household incomes, the average power bill has fallen 20 per cent in the last ten years.





The affordability of New Zealand's electricity makes it easier to switch from carbon-intensive fuels to renewable power. Any interventions need to be carefully considered to avoid detrimental unintended consequences to our existing high performing system.

Driving increased demand for electricity is key

Achieving our net-zero emissions target will require a substantial increase in demand for electricity – and in particular converting emissions-intensive activities like petrol cars and industrial milk processing to renewable electricity.

The Emissions Trading Scheme is pivotal but needs policy support…

Powering whole sectors of New Zealand's economy using renewable electricity instead of fossil fuels requires a careful balancing of market signals and policy interventions. We favour the use of the Emissions Trading Scheme to send those price signals, but recognise it needs policy support and further regulatory interventions to ensure transitions occur quickly and orderly.

ERANZ considers the Emissions Trading Scheme (ETS) a key mechanism to reduce New Zealand's emissions. Using the ETS drives efficient emissions reductions – incentivising technology or other changes to reduce emissions where the cost to do so is lower than the price but allowing some emissions where the cost of removal is greater than the price.

However, we agree with the Commission that the ETS will not be sufficient on its own. Market failures will require additional regulatory intervention – particularly where consumers face information or capital barriers to make 'efficient' choices to reduce emissions.

We need to balance allowing consumers and businesses to respond to incentives and technological change over time versus regulation which drives New Zealand down a particular path toward net-zero.

The ETS alone will not incentivise the uptake of consumer products fast enough to reach the Commission's target of a 35.5 per cent reduction in carbon emissions by 2035. We understand the desire to introduce regulations to drive consumer choice and behaviour changes faster than the ETS would achieve.

… particularly around transport and household energy efficiency

We agree with the Commission's recommendations for regulatory action on the consumer side to boost electric vehicle uptake and aid the transition of transport to low emissions electricity. Periods of higher petrol prices have not resulted in the widespread adoption of alternative transport fuels or fast enough mode shift to public transport, so we cannot rely on the ETS alone to drive the change required.

Similarly, we see significant benefits in greater regulation of home energy efficiency standards. A household's current payback period to replace all their lightbulbs with LED lights is around 15 months.[1] Yet, for numerous reasons, this positive payback is not enough to catalyse action. Households have to consider multiple factors such as product knowledge, whether they own and control their dwelling and other priorities for spending.

[1] Consumer NZ, "How to buy LED bulbs", https://www.consumer.org.nz/articles/led-bulb-buying-guide

Improving the efficiency of our homes, commercial buildings and industrial facilities can free up renewable electricity to meet the needs of existing carbon-intensive activities. The most significant contribution efficiency can make is rounding off periods of peak demand by, for example, allowing people to heat their homes during the night and retain more of that warmth during the day. Many technology innovations are already here and can pay for themselves over time: LED lighting, heat pumps for water and space heating, better insulation, energy-saving appliances, and low-flow showerheads.

On the producer side, we agree with the Commission that regulatory intervention is not a priority and agree with the recommendation against pursuing a 100 per cent renewable electricity target too soon.

The electricity industry is a mature industry with a high degree of specialisation. It is well regulated and well capitalised. Generators have a long history private investment in the timely construction of renewable generation while delivering a fair return to shareholders.

Consideration for families through the transition is paramount

As families transition their households to a low-emissions way of living, their electricity demand will increase materially. In many instances, they will be substituting higher-cost fuels for cheaper electricity, but not always. It is essential to ensure no one is left behind and that families can consume the right amount of electricity required to provide a warm, dry home.

Electricity retailers are well placed to support customers through times of transition. For example, retailers are committed to helping customers affected by low fixed charge changes with targeted communications, customer support and services like EnergyMate – and a similar approach could be taken with the broader climate change transition.

The Commission raises the issue of lower-income households' inability to afford the upfront costs of reducing their energy use – yet often, these households also live in colder, drafty houses that would benefit the most from improvements like insulation and heat pumps.

New Zealand has very poor quality housing. Improvements to housing energy efficiency have seen reductions in the average household electricity use over time. Greater use of insulation, double glazing and energy-efficient heat pumps has seen the average household electricity consumption fall by more than 10 per cent between 2010 and 2020.

This can make a big difference in power bills, but not all families have seen these benefits – there are still too many houses with no insulation, single glazed windows and inefficient appliances. Unfortunately, many families in ERANZ's EnergyMate programme live in substandard housing but are too afraid to raise issues with their landlord for fear of losing their accommodation.

ERANZ's experience working with community-based organisations conducting in-home energy coaching has shown us the benefits families receive from a properly insulated and heated home. Continuing measures to improve housing quality across the board will help reduce household power bills further. We

back the Commission's call on the government to evaluate whether its assistance programmes, such as 'Warmer Kiwi Homes', are working quickly and effectively enough to support low-income households.

Energy conservation in the home brings additional benefits. Making energy efficiency improvements can also reduce energy use at peak times – in the mornings, evenings and winter. Reducing demand at peak times helps the entire energy system as there is less need to upgrade electricity lines, avoiding potential additional costs for all households.

Electricity retailers are actively supporting low-income families

ERANZ and its members care passionately about electricity consumers in hardship and have consistently advanced additional protections since our formation in 2015.

We are incredibly proud of the progress the sector has made to better connect budgeting support agencies and energy conservation services with customers who need a helping hand. Providing early and proactive support is one of the best ways to ensure families can affordably access the power they need.

Further initiatives we have worked on in recent years includes:

- Implementing Voluntary Practice Benchmarks to assist retailers is essentially a practice guide for implementing the Electricity Authority's guidelines for vulnerable and medically dependent consumers.
- Undertaking annual compliance exercises to confirm retailers meet the standards of both the Electricity Authority Guidelines and the Voluntary Practice Benchmarks.
- Coordinating national engagement between retailers and financial support with social service providers like WINZ and FinCap's MoneyTalks.
- Retailers are providing a range of payment terms or repayment schedules to suit a household's circumstances, like smoothed monthly payments to avoid high winter bills.

Also, our EnergyMate pilot programme is being rolled out this year to eight new locations, helping hundreds more families experiencing energy hardship make the most of their electricity use through in-home energy coaching and community hui.

Increasing the supply of electricity

The move away from carbon and to renewable energy means our demand for electricity will significantly increase over the next 30 years, requiring major investment in more clean energy to meet this demand. We need to relentlessly pursue options that give us the biggest emissions reductions for the lowest cost.

Here, there is less evidence of any market failure and so Government interventions should be focused on the ETS and removing existing regulatory barriers to the development of new renewable electricity, such as improved national direction and consenting processes through reform of the RMA.

New Zealand has a track record of renewable electricity supply

New Zealand is fortunate to be well endowed with potential renewable energy sources, providing the least-cost options for new electricity supply.

Around 1,500 MW of additional renewable generation capacity has been built since 2000. As a proportion of total generation, renewables have increased from 64 per cent in 2008 to 84 per cent today.

The trend will continue - examples of long-term capital investments with significant projects green-lit include:

- Turitea wind farm, 222MW from 2021.
- Waipipi wind farm, 133MW from 2021.
- Mt Cass wind farm, 93MW from 2021.
- Tauhara geothermal scheme, 150MW from 2023.
- Harapaki wind farm, 176MW from 2025.

Indeed, over 1,800 MW of additional wind generation capacity has been consented. The current wind projects under active development will raise New Zealand's total installed wind capacity by over a third.

Geothermal is currently one of New Zealand's lowest-cost sources of new electricity generation. With three projects currently under development, additional new capacity will likely be brought online in the medium term.

All these projects are operating under normal commercial conditions without subsidies, concessions, or other taxpayer contributions.

Constructing the additional renewables required to fulfil New Zealand's increased consumer demand for electricity will be one of the country's largest-ever infrastructure initiatives – and it can be achieved by private sector investment. This frees up taxpayer funding for other emissions reduction projects where there is either market failure or no commercial driver.

Policy-makers can have confidence in the sector to deliver this scale of investment and construction as long as three pre-conditions are met: investors have a stable regulatory environment, New Zealand provides policy tailwinds to our transition, and Government refrains from costly interventions in the electricity market.

RMA reform would help more supply come on board

The Commission's analysis requires new renewable generation equivalent to three new West Wind farms each year. Improvements to the RMA would help achieve this – with settings that allow for more renewable electricity to be built, helping to meet the increasing demand for electricity and putting downward pressure on prices.

Recent experience of our members constructing large new projects indicates the current RMA adds years to the timeline. These concerns are reflected in the Productivity Commission's Low Emissions Economy report from 2018 and the ICCC's Accelerated Electrification report from 2019. MBIE has summarised the issues in its Renewable Electricity Generation consultation chapter.[2]

By the nature of the technology, renewable power plants have large physical footprints. Wind farms cover large areas of land, and because they are designed to catch the wind, they tend to be built on hilltops visible to the surrounding community. Utility solar installations, while smaller than wind farms, still cover the land area equivalent to a large industrial site. Solar tends to be constructed closer to centres of demand, so it competes with other urban and urban fringe land uses, while wind farms often remain as working sheep and beef farms.

ERANZ urges the Commission to recommend the Government to use its already announced RMA reforms to develop a faster and more flexible approval process for new renewable generation as well as greater recognition of the national importance of existing renewable generation in the fight against climate change.

A strict 2030 100 per cent renewable target will add unnecessary costs to consumers

The scale of change required makes it vital that we drive the biggest emissions reductions at the lowest costs. If we make the wrong choices now we'll be loading extra unnecessary cost on Kiwi families now, or giving future generations an even harder task because we haven't succeeded.

The Commission's report highlights the potential extra costs of a strict 2030 100 per cent renewable electricity target for the emission reductions gained. Even with demand increasing, the proportion of renewable electricity is expected to increase significantly. Investments already green-lit or under construction will, once completed, bring the market share of renewable generation to around 90 per cent and industry models are consistent with the Commission's and forecast between 96 and 98 per cent renewable generation by 2035 and more than 98 per cent after that date. Pushing for the last few per cent could mean a massive extra cost for a small amount of emission reductions gained.

These extra costs would need to be met somewhere – either by higher power bills or higher taxes. Or they'll mean we're not supporting other cheaper and more efficient ways to reduce our emissions – like converting our petrol car fleet to renewable electricity.

ERANZ agrees with the aim of 100 per cent renewable power – but the cost to consumers of trying to achieve this in too short a timeframe is significant.

The ETS tells us there are better, lower-cost interventions we can deploy elsewhere. We agree with the Commission's conclusion against a 100 per cent renewables target, stating, "the results of the ICCC's

[2] MBIE, "Enabling development of renewable energy under the Resource Management Act 1991", https://www.mbie.govt.nz/dmsdocument/10398-section-7-enabling-development-of-renewable-energy-under-the-resource-management-act-1991

modelling show that, instead of pursuing 100 per cent renewable electricity by 2035, more emissions savings could be achieved through accelerated electrification of transport and process heat."

We urge the Commission to express itself more clearly. The Commission should adopt the Interim Climate Change Commission ('ICCC') findings regarding the marginal costs of pursuing the 100 per cent renewables target before 2035. The ICCC recommended that the government "Prioritises the accelerated electrification of transport and process heat over pursuing 100% renewable electricity by 2035 in a normal hydrological year because this could result in greater greenhouse gas emissions savings while keeping electricity prices affordable."

The ICCC based this recommendation on the greater emissions-reduction benefits deriving from quickly transitioning fossil fuel-intensive sectors to primarily renewable and affordable electricity. The ICCC analysis showed, "Going from 99% to 100% renewable electricity by overbuilding would avoid only 0.3 Mt CO2e of emissions at a cost of over $1,200 per tonne of CO2e avoided. It is also likely to result in much higher electricity prices than in the business as usual future."[3]

In addition, ERANZ is concerned with the potential unintended consequences of Government intervention in the electricity sector to deliver on the 2030 target. There is high-risk such intervention would create a chilling effect on the development of new generation – which runs counter to our overall goal of delivering an additional 20-30 TWh of new electricity generation by 2050.

A New Zealand Energy Strategy would be a positive step

Rather than focus solely on a renewable electricity target, a better approach would be on an overall 'New Zealand Energy Strategy'. This would give the government, industry and consumers a forum to discuss the trade-offs inherent in the "energy trilemma" of security of supply, environmental sustainability, and price. Once developed, an overarching energy strategy would guide industry investment and provide greater regulatory certainty as we tackle climate change together.

Finally, stability, transparency and continuity on climate change policy by current and future governments will deliver confidence to the sector. As detailed in our submission, billions of dollars of new investment is required to meet future electricity demand. Investors need long-term confidence to make these long-lived, sunk investments; constant political change makes that challenging. ERANZ strongly supports the Commission's draft advice and considers a cross-party consensus would make the transition to a low-emissions future easier for consumers and business. Such a consensus would help New Zealand achieve the cleaner, fairer and healthier country that we desire.

[3] ICCC, "Accelerated electrification", https://www.iccc.mfe.govt.nz/assets/PDF_Library/5fc8649516/FINAL-ICCC-Summary-report-for-electricity.pdf

Thank you for your consideration of this letter. We look forward to continuing to work with the Climate Change Commission to help drive New Zealand's sustainable future.

Yours sincerely

Cameron Burrows
Chief Executive