

28 February 2020

Energy Markets Policy
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ERANZ submission on accelerating renewable energy and energy efficiency

The Electricity Retailers Association of New Zealand (ERANZ) welcomes the opportunity to provide feedback on the Government's December 2019 discussion document: Accelerating renewable energy and energy efficiency.

ERANZ is supportive of the Government's goal to transition New Zealand to a low emissions economy. Electricity has a key role to play. In the past 12 months, 84 per cent of all electricity was produced from renewable sources. There are significant gains to be made by converting emission-intensive industries such as transport and process heat to electricity.

We are also supportive of the steps the Government is taking to coordinate change both across government and indeed the entire country. This joined-up approach will drive much better outcomes than a range of ad-hoc measures.

In this submission, we have provided feedback only on proposals that relate to electricity retailers. ERANZ represents retailers that provide electricity to more than 9 in 10 New Zealanders, with member companies ranging in size from 1,000 to 500,000 customers. We have not provided feedback on generation-focused proposals, except to the extent they affect retailers.

New Zealand is fortunate to have relatively low-cost electricity. Our power prices are the 10th cheapest in the developed world, and the average annual household power bill has fallen by around \$120 in the past five years.

Moving to a low-emission economy will likely raise power prices to some extent, all else being equal – both by increasing the marginal cost of supply (in part through a higher carbon price) and by significantly increasing demand for electricity as industries such as transport and process heat move to electrification. This may be offset to a certain extent by other factors such as technological change.

In this context, it is vital that emission reductions are achieved as efficiently as possible – taking advantage of least-cost abatement opportunities in order to minimise the additional costs faced by New Zealanders.

The Emissions Trading Scheme (ETS) is the key mechanism by which the Government is seeking to reduce emissions in New Zealand. ERANZ agrees with this approach. 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 reduction is greater than the price.

The Government’s discussion document considers which steps beyond the ETS are required to support a low-emissions economy. Many of these changes will complement the ETS – such as proposals to remove unnecessary regulatory, information, and cost barriers to unlock least-cost abatement opportunities.

However, a number of proposals could impose significant costs beyond the ETS. Part of the reason the ETS will not drive the full reductions in emissions is that the Government intends to place a cap on the price of carbon to limit the increase in costs faced consumers.

It seems counter-productive to cap the ETS price in order to limit the additional costs faced by consumers, while at the same time undertaking additional steps that increase costs faced by consumers because of the ETS cap limits its effectiveness

Of particular concern is the regulation under active consideration which would require power companies to deliver energy efficiency resources to their customers. Electricity retailers are not best placed to make improvements to New Zealand’s poor housing stock. The extra cost to power companies would ultimately be paid for by consumers through higher power prices – and could see significant expenditure on changes that may not be the most efficient method of reducing emissions. These concerns are outlined in more detail in the remainder of this submission.

Option 8.1 – Power Purchase Agreement Platform

New Zealand is fortunate to be well endowed with potential renewable energy sources. In New Zealand, renewables provide the least-cost options for new generation. In 2019, 84 per cent of the electricity produced in New Zealand was from renewable sources, up from 73 per cent ten years ago.

Renewable generation has increased over time. Around 1,500 MW of additional renewable generation capacity has been built since 2000. Renewables, as a proportion of total generation, have increased from 64 per cent in 2008 to 84 per cent today. The trend will continue, with 563 MW of new renewable generation projects currently being developed.

Furthermore, over 1,800 MW of additional wind generation capacity has been consented. The wind current 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, it is likely that additional new capacity will be brought online in the medium term.

In 2018 residential rooftop solar capacity increased by 30 per cent. Genesis Energy has recently announced it is advanced discussions on terms for a 300 MW solar farm in North Waikato.

Unlike most other countries, our high levels of continued renewable electricity generation growth have been achieved without specific renewable support schemes.

The current PPA market allows brokers to connect renewable electricity developers with electricity buyers that want to enter into PPAs.

It may be potential developers and investors in smaller-scale renewable generation projects would benefit from low-cost facilitation that allows parties to self-connect – such as greater availability of information resources (eg the publication of a list of potential generation opportunities, and the contact details of relevant established entities such as specialist brokers, legal experts, and engineering consultants).

ERANZ sees a limited role for Government in this space beyond that – particularly given New Zealand’s ongoing favourable renewable resources potential, and the attractive economics of renewable resources.

ERANZ is concerned with proposals that guarantee or underwrite certain PPAs to help lower the contract stake price and de-risk electrification projects. This would be a Government subsidy for certain types of new generation, but not others – which may result in some more expensive generation projects proceeding ahead of less expensive options, increasing the overall cost of New Zealand’s transition to a low-carbon future.

Of the options presented, ERANZ believes Government intervention and incentives to encourage PPAs have less potential and should be given lower priority. More in-depth analysis, research, and consultation should be undertaken if this were to be progressed.

Option 8.2 – Encourage greater demand-side participation and develop the demand response market

This option considers whether there is a role for Government in developing a national demand response market that runs alongside the wholesale electricity market to remunerate market participants for reducing their demand during peak periods and/or shifting it into a different time period.

ERANZ agrees there is untapped demand-side response resource. A recent IEA report estimated there is around 4,600 MW of potential demand response in New Zealand, comprising 1,500 MW in the residential sector, 1,100 MW in the commercial sector, and 2,000 MW in the industrial sector.¹

However, ERANZ does not support the development of a national demand response market. Instead, the most cost-effective way to unlock this potential this is through enabling of the electricity pricing

¹ Energy Policies of IEA Countries: New Zealand, IEA 2017.

mechanisms that both incentivise consumers to change their electricity consumption patterns and fully realise the benefits of investing in technologies that enable consumers to flatten their demand profiles.

The rollout of smart meters has been a game changer for electricity retailing, providing the basis for innovation and consumer choice. New Zealand has one of the highest uptakes of smart meters of any country in the world. Around 83% of the nearly 2.2 million ICPs in New Zealand have smart meters certified to provide half-hour data. At 86%, the proportion of smart residential meters is even higher.

Smart meters have increasingly enabled retailers to offer the time of consumption-based pricing options that incentivise consumers to shift load or curtail demand at peak times. The effect on demand profile is akin to that a demand response approach seeks to achieve, but is more cost-effective, and without the extensive risks and regulatory changes required to set up the additional market mechanisms. Time of use retail offerings also encourage the uptake of nascent technologies – such as in battery storage, solar PV, electric vehicles, and smart home technology – by enabling consumers to realise the maximum benefit from their investment in these technologies.

Retailer time of use price offerings would be increased and enhanced by a move to cost-reflective pricing by electricity distributors and by the removal the low fixed charge which serves to blunt time-based price signals. The EA has existing projects to improve distribution pricing to foster the uptake of new services and emerging technologies. ERANZ believes focusing regulatory effort on these issues would bear more fruit than setting up a new demand-side market.

Option 8.3 – Deploy energy efficiency resources via retailer/distributor obligations

This option would place an obligation on electricity retailers and/or distributors to deploy energy-efficient technologies across their customer and/or asset base.

ERANZ agrees energy efficiency has a role to play in supporting New Zealand’s transition to a low-emission economy. New Zealand households can significantly reduce their electricity consumption, and their power bill, by taking simple steps like installing insulation, using a heat pump, or by swapping out incandescent lights for LEDs. We note household consumption has fallen 10% since 2010, in part driven by improvements to appliance and building efficiency. Retailers already currently provide around \$5.5 million in funding for EECA initiatives and programs via a levy.

EECA analysis² suggests the cost of a range of energy efficiency measures, particularly for businesses, is likely to be lower than that of new renewable generation, and so represent a cost-effective way of reducing emissions. However, residential energy efficiency are much less cost-effective.

ERANZ encourages households to take energy-efficiency steps where it makes sense for them to do so. We run public campaigns (both through social media and more traditional channels) to that effect. ERANZ have also established the EnergyMate programme for low-income New Zealanders at highest risk of

² EECA – Energy Efficiency First, July 2019. <https://www.eeca.govt.nz/assets/Resources-EECA/research-publications-resources/EECA-Energy-Efficiency-First-Overview.pdf>

energy hardship, which provides some energy efficiency materials (such as LED lights) and energy literacy training to families become more energy-efficient and reduce their energy use.

However, ERANZ is strongly opposed to this proposal requiring retailers to deliver energy-efficient materials. Residential energy efficiency is fundamentally a housing quality issue – the electricity sector is not well placed deliver the improvements required to New Zealand’s poor quality housing stock.

To be effective, energy efficiency intervention programs require specialist technical expertise and resources that retailers do not typically have. Retailers are not well placed to determine the best energy efficiency offering for households and businesses – that decision is better made by individuals faced with the costs and benefits of the decision.

If the Government concludes households and businesses will not make optimal choices around energy efficiency, the best way to address this is through direct subsidies for energy-efficient appliances and lightbulbs via EECA, and regulation which address the structural barriers to energy efficiency such as the Healthy Homes Guarantee Act and Minimum Energy Performance Standards – both of which are already happening, but could be enhanced.

Requiring power companies to deliver energy-efficient technologies such as heat pumps or insulation to their customers would impose high costs on those companies. This may have the effect of reducing EECA’s costs initially, however these costs would be passed on to consumers through higher power prices.

The discussion document states that a potential benefit of the proposal would be the reduction in up-front investment costs for customers and businesses seeking to implement energy efficiency measures. However, this cost would be shared across all customers through higher power prices.

Some retailers, particularly smaller ones, may not have a large enough balance sheet to make the significant investment to support the delivery of energy efficiency materials to their customers. This proposal could, therefore, reduce the likelihood of new retailers entering the market, and indeed may even see the departure of some existing retailers – reducing competition and choice for New Zealand electricity consumers.

Option 8.5 – Renewable energy certificates and portfolio standards

This proposal would require retailers and/or large electricity users to procure a given quota of renewable electricity, with the quota increasing annually to drive investment in new renewable projects.

ERANZ agrees with the Government that this proposal should not be progressed.

As per our response to option 8.1, New Zealand is fortunate to have a highly renewable electricity system, with the proportion of renewable expected to grow further over the coming years.

The ETS is the key mechanism by which the Government is seeking to reduce emissions in New Zealand. 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 reduction is greater than the price.

The discussion document is correct to highlight the risks in negative interactions between the ETS and renewable energy certificates. In addition to the risks highlighted in the discussion document, if the quota was set at a level that encouraged greater use of renewables than driven through the ETS, it would likely be driving emissions reductions that are not lowest cost – lifting the overall cost of transition to a low-emission economy for New Zealanders.

ERANZ recommends the ETS remain the key mechanism for driving emissions reductions, rather than additional ad-hoc mechanisms such as renewable energy certificates that could significantly increase power prices if set at the wrong level.

Section 9 – Facilitate local and community engagement in renewable energy

This section proposes actions to facilitate and reduce barriers to community energy projects. This includes having a clear government position on community energy issues and supporting the development of a small number of community energy pilot projects.

Although community energy is still nascent in New Zealand, distributed energy is likely to have a substantial role to play in New Zealand's transition to a low emissions economy.

There may be merit in the Government supporting a small number of pilot and demonstration projects to help overcome some innovation uncertainties.

ERANZ would be concerned with more significant Government involvement in this space, such as providing a guarantee to underwrite or subsidise community energy projects. This would distort the relative merits of new renewable generation projects and may result in some more expensive generation projects proceeding ahead of less expensive traditional options, increasing the overall cost of New Zealand's transition to a low-carbon future.

Thank you for your consideration of this letter. We look forward to continuing to work with the MBIE for the benefit of the sector and the long-term interests of consumers.

Yours sincerely

A handwritten signature in black ink, appearing to read 'C Burrows', with a long horizontal flourish extending to the right.

Cameron Burrows
Chief Executive