

25 March 2021

Entrust supports sustainable growth and initiatives to reduce greenhouse gas emissions

Entrust welcomes the Climate Change Commission's (CCC) consultation on initiatives to reduce greenhouse gas emissions, and help New Zealand play its part in tackling climate change.

Entrust wants to ensure electricity is supplied in an efficient and affordable way to all consumers and its beneficiaries, including the 340,500 households and businesses in Auckland, Manukau, and parts of Papakura and eastern Franklin.

Entrust is involved in many projects which support lower emissions and, as 75.1% shareholder in Vector, supports their focus on new technology. Vector is New Zealand's largest electricity and gas distributor, and is leading the way in solar panels, battery storage, and smart technology initiatives to meet the needs of consumers.¹

Summary of Entrust's views

- Lines companies need to adapt to new technologies and the impact on their networks.
- The electrification of the economy will require substantial electricity network investment to meet future capacity needs.
- It is important the regulatory environment allows lines companies to respond to changing technologies and consumer demand.
- Industry regulators, such as the Commerce Commission, Electricity Authority and Gas Industry Company, should be required to take into account emissions and other environmental impacts in their decisions.
- Energy affordability is key to managing the transition to electrification and lowering carbon emissions.
- We do not consider there is any reasonable basis for the CCC modelling assumption that the currently upward trend in electricity prices will reverse, or that there will be significant price reductions in the near future.²
- Entrust is very concerned the CCC has grossly understated the cost of the transition to Kiwi households and businesses, and made it appear there would not be much cost to the economy.

¹ As well as related initiatives such as planting more than 26,735 native trees and shrubs to date, through Vector's Urban Forest Initiative.

² The monthly average wholesale electricity price has gone from \$140.67/MWh at the beginning of January to \$250.67/MWh at the beginning of February, whereas the CCC assumes prices starting between \$90 and \$100/MWh at the beginning of January and progressively falling. Source: https://www.emi.ea.govt.nz/Wholesale/Reports/W_P_C?DateFrom=20201201&DateTo=20210228&TimeScale=MONTH&rsdr=L3M&RegionType=NZ&si=v|3

- We are also mindful of the risk of unintended consequences if, for example, transitioning away from gas to electricity too quickly results in greater reliance on gas and coal for peaking or higher prices for consumers. This makes us uneasy about interventions such as the proposed ban on new gas connections.
- The timing of interventions to support lower emissions fuels needs to be carefully considered to ensure a successful and affordable transition.

Entrust is involved in initiatives that promote lower emissions and benefit our local community

Entrust gets involved in many projects and initiatives each year which support emission reductions.

For example, we have an agreement which commits Vector to spend \$10.5 million each year on projects in the Entrust district. Historically this fund has been used for undergrounding projects, however from 2015 the parameters around the fund were changed and extended to include new technology initiatives such as solar and battery and electric vehicle (EV) chargers. The programme is now known as the Energy Solutions Programme.

This programme has included establishment of 25 EV chargers around Auckland so far. It also includes installation of solar panels and battery packs on some of Vector's zone substations to reduce the energy consumption from the grid.

Entrust and Vector also jointly committed to the development of a smart grid solution at Kawakawa Bay. The network in this area is exposed to significant geographical challenges. The smart/micro-grid, consisting of a solar and battery system is intended to reduce the outage times experienced by residents in Kawakawa Bay.

Other initiatives have included launch of a "Future of Energy" campaign in which Auckland's most deserving families, community groups and schools were nominated to win the use of a Vector solar system featuring a Tesla Powerwall battery for 10 years.³ The 130 winners of this initiative have all had Tesla Powerwall batteries installed and are benefiting from lower emissions and savings on their power bills.⁴

Lines companies have an important role to play in lowering emissions

As owner of a significant and important investment in Vector, Entrust supports Vector's focus on new technology initiatives and innovation.⁵ This includes promotion of new technologies, and related initiatives, such as home energy solutions (HRV, solar panels, battery storage etc), EV charging infrastructure and smart metering. Vector has been actively investing in new technologies over the last several years.

Vector is focussed on viable large-scale industrial battery solutions in areas such as Glen Innes, and Warkworth/Snells Beach.

Vector is also involved in initiatives in the South Pacific region which is at the forefront of the effects of global warming due to rising sea levels. Working with Ministry of Foreign Affairs and Trade (MFAT) and the Niuean Government, Vector PowerSmart designed and built a sustainable generation plant and energy management system for the island, using

³ <https://www.vector.co.nz/articles/dozens-of-auckland-schools-connected-to-the-future>

⁴ For more on Entrust's community interests refer to: <https://www.entrustnz.co.nz/community/>

⁵ For more examples of Vector initiatives in the innovation and technology space refer to: <https://www.vector.co.nz/articles?pageFilter=Innovation>

new solar and battery technology. The 600kW of solar technology has produced 320,000kWh of electricity in the six months since 1 January 2019. Diesel consumption has reduced alongside CO2 emissions.⁶

Entrust recognises electrification of transport is critical to achievement of New Zealand's desired carbon reductions, a point that is made clearly in the CCC report. Vector is half-way through an EV smart charging trial launched in October 2019. Vector is working with participants to trial technology and collect data on their EV charging preferences and experiences. This trial will help Vector determine if optimising charging schedules, without inconveniencing customers, could potentially help alleviate peak demands on the network. A key benefit could include avoiding the need to invest in expensive network infrastructure upgrades.

Industry regulation needs to align with decarbonisation objectives

We agree with the CCC that "Sufficient adaptability and flexibility in the regulatory environment are ... necessary if networks are to respond to changing technologies and consumer patterns".

We have been advocating that industry regulators such as the Commerce Commission, Electricity Authority and GIC take decarbonisation and environmental matters into account in their decision-making. The Electricity Authority has been upfront that it considers environmental factors outside its statutory objective:⁷

... the Authority does not consider the promotion of efficiency for the long-term benefit of consumers to cover all matters that may deliver long-term benefits to consumers. ... For example, carbon emissions ... are being addressed by the Government's environmental policies, including its emissions trading scheme.

The CCC consultation paper highlights that industry regulators need to recognise the need for regulated lines companies to adapt to new technologies, and environmental imperatives e.g. investment to meet demand growth following electrification, and reform of pricing to manage peak demand.

It is also imperative regulatory settings recognise the risks and challenges lines companies face and provide for these to be efficiently managed. As the majority shareholder in Vector, Entrust participates in regulated activities with the expectations of a reasonable investor, that it and our trust beneficiaries will be able to recover the costs of prudent and efficient investments. This includes that the regulatory settings account for the type of asset stranding risk resulting from a shift from reliance on gas to greater electrification.

We recommend current energy sector regulatory settings are urgently aligned with the goal of decarbonisation. Some of the changes could be as simple as clarifying that environmental considerations directly impact industry regulators' statutory objective to promote the long-term benefit of consumers.

Energy affordability is a key element of ensuring a successful transition

A key element of ensuring successful electrification and decarbonisation is affordability.

The CCC report highlights "Households that use natural gas for heating and cooking are likely to see an increase in their natural gas bills". Based on the CCC forecasts average gas-using households could pay up to \$150 more per year in 2035.

⁶ [https://www.vector.co.nz/articles/turning-evs-into-power-sources-\(1\)](https://www.vector.co.nz/articles/turning-evs-into-power-sources-(1))

⁷ Electricity Authority, Interpretation of the Authority's statutory objective, 14 February 2011.

We consider the higher gas prices can be relied on to lead consumer choice between electricity and gas, and a successful transition to a low-emissions economy, rather than interventions such as bans on new gas connections. Preserving gas for these options requires broader consideration of the role of the gas sector.

We are also mindful of the CCC observation "Natural gas currently plays a significant role in the electricity system by backing up renewable generation" and "... options to eliminate the use of natural gas for electricity generation ... are likely to be expensive for the size of the emissions reductions they deliver".

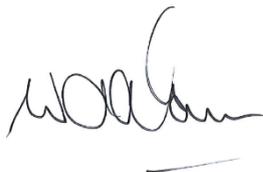
There is a risk that if the transition occurs too quickly it will also result in unnecessarily higher costs for future electricity customers, including the significant upfront costs to consumers of replacing gas heating and kitchen appliances with electric. Even if the transition was long enough such that gas appliances could be replaced at the end of their natural life-time, replacing gas appliances with electric would result in additional costs e.g. gas water heating equipment is typically on the outside of houses. Replacing gas water heating equipment with internal electric hot water cylinders would require additional capital costs as well as the cost of the new heater. Any increase in cost would severely disadvantage vulnerable and low-income households and undermine the financial attractiveness of electrification.

Concluding remarks

We welcome the CCC's recognition of the role lines companies have in supporting climate change objectives, and the transition to a low emissions economy, and look forward to engaging with the CCC and other stakeholders as New Zealand transitions to a low carbon economy.

It is important the transition is affordable, and the costs for Kiwi households and businesses is fully understood. We are concerned that the CCC assumption that electricity prices are going to fall from 2021 and remain low for the next 15 years isn't realistic and could result in expectations the transition is going to be easier and less costly for New Zealand than it will turn out to be. If energy isn't affordable the transition to electrification could be significantly harmed.

Kind Regards,



William Cairns
Chairman

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