



TRANSPOWER

Keeping the energy flowing

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Keston Ruxton
EAD Regulation Development
Regulation Branch
Commerce Commission
Wellington 6140

By email to: regulation.branch@comcom.govt.nz

Dear Keston

Information relating to emerging technologies

We welcome the opportunity to submit on the Commerce Commission's open letter "*Our intention to gather information relating to emerging technologies*", 9 May 2018.

Recognition of the importance of the bigger picture

The Commission has proactively engaged with the sector on the implications of new technology, and been clear on its approach to define the regulated service in technology neutral terms. The recent changes made to cost allocation and related party transaction rules were aimed at providing greater surety about the robustness of the ring-fencing arrangements. This approach has kept investment options and innovation opportunities open while addressing competition concerns.

Transpower considers that the information gathering next step by the Commission is a sensible near-term stock-take. There is considerable value in the Commission understanding what is currently in progress or planned across the sector.

The Commerce Commission has an important role in shaping our energy future

We support the Government's position, reflected in the terms of reference for the Electricity Price Review, that:

“... rapidly changing technologies and business innovations present opportunities and challenges to the operation the electricity system. Emerging technologies can contribute to the transition to a lower emissions economy through renewable energy solutions, increasing the efficiency of the grid and enabling greater energy consumption control for the consumer. To benefit from technology we need a regulatory framework that is sufficiently enabling”.

One of the questions the terms of reference for the Electricity Price Review poses is the ability of the current regulatory framework “to promote the potential benefits from emerging technologies”.

The Commission approaches this question from a practical perspective in operating Part 4; particularly, in relation to the section 52A(1)(a) requirement to promote incentives to innovate, and the section 52T(3) requirement not to unduly deter investment by regulated suppliers.

The Commission faces challenges with the potential investment required to respond to the change in demand for distribution and transmission services driven by emerging technology. There is also the question of how emerging technologies change the way distribution and transmission networks are operated. Complicating this, engagement in technology such as batteries and solar PV could well turn out to be a good way of managing the risk emerging technology poses for traditional network assets.

Given the implications for the sector are so significant, we encourage the Commission to stay focused on the bigger picture, on what regulated suppliers should be doing (and how this should be fostered), and medium and longer-term outcomes for consumers in a whole-of-industry context. This is consistent with the approach we have applied in developing our recently released *Te Mauri Hiko – Energy Futures*¹ and *Auckland Strategy Direction*² white papers: looking out at the future, beyond normal Asset Management Planning horizons to inform our medium and longer term priorities and direction.

Planning for emerging technology and a different energy future

We have been turning our mind to the role and impact of emerging technologies, and other factors such as climate change and environmental concerns. This was initially reflected in *Transmission Tomorrow* and has now been more explicitly considered in *Te Mauri Hiko – Energy Futures*.

We commissioned the *Te Mauri Hiko – Energy Futures* project to closely examine a range of electricity supply, demand and future technology scenarios – and to begin exploring how New Zealand can maximise the potential energy opportunities available to decarbonise the economy.

¹ <https://www.temaaurihiko.co.nz/>

² <https://www.transpower.co.nz/sites/default/files/publications/resources/AKLDEmergingStrategy.pdf>

Te Mauri Hiko – Energy Futures examines the potential role of emerging technologies, behind-the-meter, distributed and grid-connected (including electric vehicles, batteries and solar), and how they may affect the New Zealand power system. It canvasses a range of global, climate response and industry development scenarios as critical context into which energy industry decisions, including electricity industry decisions, must be considered.

Multiple new technologies will play their part in New Zealand's energy future, and all parts of the system will need to be fully functioning to realise and optimise their potential. New generation will be both grid-connected and connected into local distribution networks. The national grid and local electricity networks will need to ensure sustained investment in their assets is sufficient to connect, coordinate and reliably distribute new forms of energy.

For the national grid, it is expected multiple new grid connections will be required for generation utilising increasingly intermittent energy sources. Local networks will similarly need to consider how their assets will handle increasing peak loads, greater solar generation, battery penetration and the charging of electric vehicles. The opportunity is to ensure emerging technology at all levels, behind-the-meter to grid-connected, contributes positively and does not create avoidable new problems requiring costly solutions.

Concluding remarks

Emerging technology creates opportunities, risks, and challenges for the electricity sector. This will only serve to make the Commission's already difficult role more challenging.

There are presently multiple initiatives that have implications for the way emerging technology is used and our energy future. This includes the Commission's evolution of the way it operates price control, several Electricity Authority workstreams, the Electricity Price Review, the Productivity Commission work on low emissions, establishment of an Interim Climate Change Committee ahead of the Climate Change Commission, and initiatives like Transpower's *Te Mauri Hiko – Energy Futures*. The challenge for all stakeholders, not just the Commission, is to ensure there is coherent and joined up thinking to ensure the best long-term outcomes for consumers.

We consider it vital that the Commission, and other agencies, continue to engage with the industry on what these longer term transformations imply for the regulatory regime. While the period of forecasting involved is long and these are long term trends, the outcomes are influenced by the regulatory settings now and the investment decisions being made in the near term.

The Commission has an important role in asking: Where are the regulatory structures facilitating change and where are they impeding it? How can we better facilitate the collaboration that will be required if sector participants are collectively going to get on these pathways? And so on.

We would be happy to meet to discuss emerging technologies and how we see the Commission's work fitting with our *Te Mauri Hiko – Energy Futures* and Auckland Strategy projects and thinking. We look forward to working with the Commission on these long-term pathways, and what their implications for the current regulatory decisions.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Alison Andrew', written in a cursive style.

Alison Andrew
Chief Executive