

executive summary

We support a whole-systems approach to reduce emissions from the energy sector

Transitioning to a low emissions future requires a whole-systems approach which takes into account drivers of emissions across energy supply chains, and which considers a range of solutions to meet our climate change mitigation and adaptation goals. Increasing low emissions electricity generation (including low carbon renewable electricity), and driving energy efficiency and demand response are key to enable affordable electrification – and we support the Government’s focus in these areas. Given the different drivers of a low emissions energy future, and new interdependencies, (such as the convergence of the electricity and transport sectors) we support a Ministry for Energy which can strengthen a joined-up policy response and which can ensure that regulatory settings align with policy goals.

Demand response is an opportunity to shape our energy systems around the needs of customers and communities. We support a localised, rather than centralised, demand response model.

We support the focus on demand response and believe that demand response platforms should be built around the needs of customers and communities – including small residential customers. We believe that this is best supported by a localised, rather than centralised, system operation model. We see a localised system operation approach as being more aligned with the drive to decentralise our energy systems around the needs of customers, and we do not support the option to impose a single, centralised Distribution System Operator (DSO), or to scale up Transpower’s demand response programme as a national market mechanism. We believe that cyber security is a key priority for any system operations model. This requires strong, proactive investment in the right cyber security system.

Decentralisation, digitalisation and data analytics are drivers of a new energy future that delivers for customers. Leveraging smart digital platforms to integrate and coordinate distributed energy resources (DER) and demand management technologies – such as smart

EV chargers – is key to realising the greatest potential value for customers from these technologies. We support regulation which encourages the uptake of EV smart chargers given the critical role that smart EV charging will play for affordable electrification.

The integration of new technology and innovation can drive greater system efficiency and Electricity Distribution Businesses (EDBs) have a key role to play to enable this. We support a regulatory approach which enables EDBs to invest in new technologies.

Community owned, local Electricity Distribution Businesses (EDBs) have a key role to play as enablers of a low emissions future – Vector already has a Distributed Energy Resource Management System (DERMs) which is connected to EV smart chargers being trialled in Auckland. Networks have clear incentives to drive greater system efficiency and to support the uptake of DER – which can both empower customers and support the goal of increasing renewable generation.

We support regulation which encourages EDBs to invest in new technology, allowing the network to respond to changes in future demand patterns efficiently. We consider there is a significant opportunity to better align regulatory settings in support of wider system efficiency. We also support incentive based measures to increase EDB investment in energy efficiency – international examples have shown that incentivising greater utility investment in energy efficiency increases customer savings.

We support increasing local and community engagement with renewable energy. This is a key opportunity to strengthen community resilience. We support participation of a wider variety of market entrants.

Increasing community renewable energy and DER more widely can strengthen resilience by reducing customers’ reliance on the centralised network, supporting our climate change adaptation efforts. We support the goal to encourage participation of a wider variety of new entrants in the electricity market. This requires the right wholesale market conditions to enable new standalone generators to compete and we support measures to increase transparency and confidence in the wholesale market. To drive greater community

engagement with renewable energy, we support trials for local energy markets and micro-grids. We note international examples where local utilities have played a leading role supporting community generation and the uptake of DER.

Pricing – along with wider local network trading arrangements – has a role to play to support the uptake of DER.

We believe that pricing has a role to play to support the uptake of DER and engagement with demand response. We continue to engage with the Electricity Authority (EA) as they progress efforts to make prices more cost reflective and are working with cross-industry stakeholders to better understand the impact of pricing in managing demand. However, we believe that considerations for overall system efficiency need to be balanced carefully with considerations for equity and customer experience. We note that pricing only works as a lever to manage demand in so far as customers can respond to the signal, and that in some cases pricing can simply shift, rather than flatten, peak demand. We therefore

believe that pricing works best alongside smart technological solutions to manage demand.

We support incentive based interventions to catalyse greater private investment in renewable energy and energy efficiency

We support the goal of increasing private investment in new energy solutions and proactively supporting industry's transition to low emissions sources of energy. We consider that there is currently an under incentive for businesses to invest in clean energy solutions, relative to the wider public good. We therefore support incentive-based Government funding to tip the balance in favour of greater industry investment in renewable energy and energy efficiency projects. We consider that this under incentive is the greatest in relation to more uncertain, early stage technology solutions and innovation. We note however, that investment in these activities can develop New Zealand's innovation ecosystem and wider economy. We also note that building capability and the absorptive capacity of New Zealand businesses is an opportunity to strengthen the uptake of new energy solutions.