SUBMISSION ON THE ZERO CARBON BILL DISCUSSION DOCUMENT

19 JULY 2018

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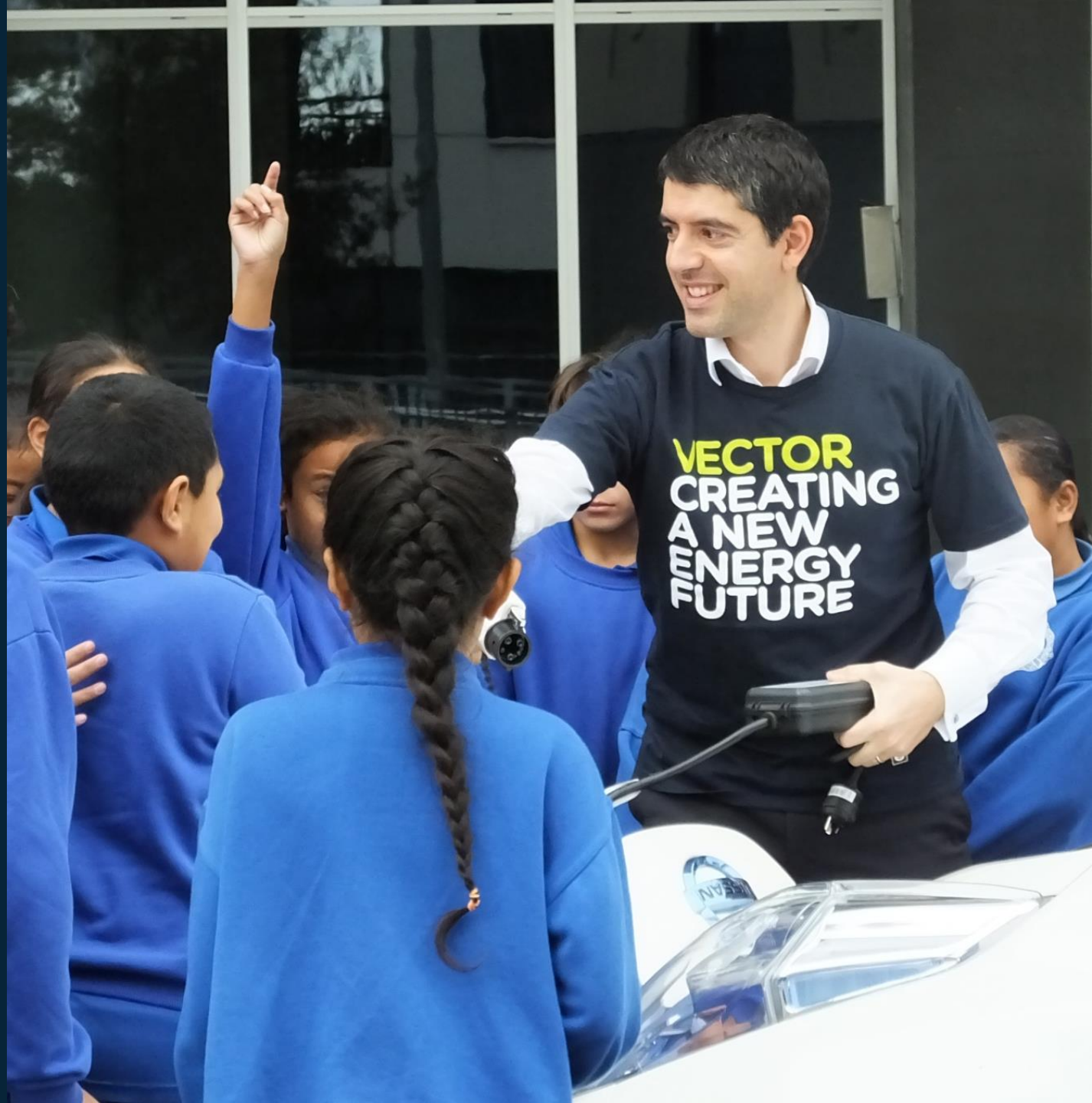

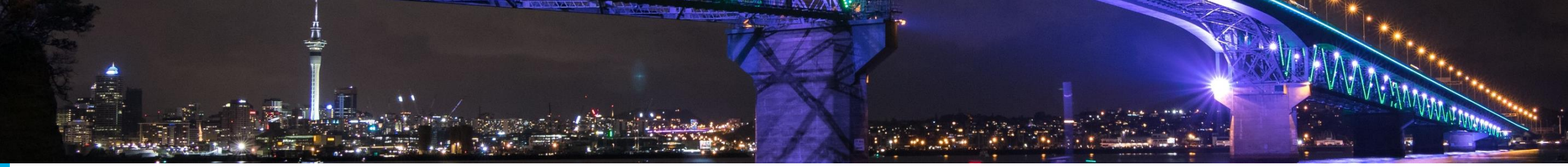

Executive Summary

Sustainability is at the heart of Vector's vision of *creating a new energy future* and its commitment to achieving 'net zero emissions' by 2030.

As a leading technology solutions company, Vector is well placed to achieve its vision by introducing new technologies and services in the energy sector that drive emissions reduction, and promote the use of renewable energy in the wider economy.

Vector supports the introduction of a *Zero Carbon Bill*, which will provide a stable policy environment and clear signals on the country's direction on climate change. It will empower New Zealanders to make more informed consumption and investment decisions as they face the impacts of climate change.

We believe the appropriate role of the Government and regulators is to ensure that the legislative and regulatory framework provides the right incentives for continued innovation and investment in new technologies that facilitate decarbonisation and increase resilience.

We support setting a 2050 emissions reduction target in legislation now, and a net zero emissions target across all greenhouse gases by 2050. We agree that parties should be allowed to use some international carbon units from credible sources to meet their emissions obligations.

We support the creation of an independent Climate Change Commission that will set five-year emissions budgets, with an advisory role.

In our view, industry regulators should be required to take into account climate change impact in their regulatory decisions, including allowing the provision of new technology solutions that facilitate emissions reduction through existing regulated businesses. This approach should be applied consistently across regulators.

We consider it important to cover adaptation in legislation alongside mitigation, and to improve national guidance on adaptation.

Vector will continue to work hard to reduce emissions, increase resilience, and empower consumers.

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Introduction

This is Vector Limited's (Vector) submission on the Ministry for the Environment's (MfE) discussion document on the Government's proposal to introduce a *Zero Carbon Bill* (the Discussion Document), released in June 2018.

Sustainability is at the heart of Vector's vision of *creating a new energy future*. We believe sustainability is about meeting the needs of current generations without compromising the ability of future generations to meet their needs, and striking the right balance between the environment, society and the economy.

As a leading technology solutions company, Vector is committed to an ambitious target of achieving 'net zero emissions' by 2030. While committed to all of the United Nations Sustainable Development Goals (SDGs), we have identified seven SDGs that we will actively pursue in the short to medium term, including the goal of taking actions to combat climate change and its impacts. We therefore support the introduction of a *Zero Carbon Bill*.

We will continue to pursue sustainability by developing innovative and energy efficient services that reduce emissions and promote the use of renewable energy. These include, among others, electric vehicle (EV) charging services, grid-scale and residential batteries, solar PV, home energy solutions, and advanced or 'smart' metering.

We are introducing distributed energy resources (DER), and trialling Internet of Things (IoT) technologies and innovative pricing models that provide consumers greater control over their energy consumption. These will enable consumers to better contribute to the decarbonisation of the New Zealand economy.

Our Auckland car pool fleet has been totally converted to EVs or EV hybrids. We have installed solar panels on the roofs of our head office and some substations, where Powerwall batteries have also been installed. At our head office, we have created a trial area for LED lighting, with a longer term plan to replace all the lights with LEDs.

We have incorporated carbon emission reduction targets into our short-term incentive scheme (bonus) for all relevant employees.

We set out below our responses to the consultation questions, with our 'optional' comments.

No part of this submission is confidential. We are happy to discuss with MfE officials any aspects of this submission. The contact persons for this submission are indicated at the end of this document.

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Responses to consultation questions: 2050 target

1. What process should the Government use to set a new emissions reduction target in legislation? Pick one:
   - the Government sets a 2050 target in legislation now
   - the Government sets a goal to reach net zero emissions by the second half of the century, and the Climate Change Commission advises on the specific target for the Government to set later.

In setting a new emissions reduction target, the Government should set a 2050 target in legislation now. This option (option A) would provide a more consistent policy agenda and greater regulatory certainty.

As a technology solutions company, Vector believes the future holds great potential for further emissions reduction using new technologies. The appropriate legislative context is one where New Zealanders are supported by the right incentives to innovate and invest in new technologies that help facilitate, if not accelerate, decarbonisation in the economy.

2. If the Government sets a 2050 target now, which is the best target for New Zealand? Pick one:
   - **net zero carbon dioxide**: Reducing net carbon dioxide emissions to zero by 2050
   - **net zero long-lived gases and stabilised short-lived gases**: Long-lived gases to net zero by 2050, while also stabilising short-lived gases
   - **net zero emissions**: Net zero emissions across all greenhouse gases by 2050.

Vector considers that net zero emissions across all greenhouse gases (option C) would be the best approach for New Zealand.

We support an approach that fairly allocates the costs for action on climate change, including in the New Zealand Emissions Trading Scheme (NZ ETS), across all sectors of the New Zealand economy. We believe all sectors should make a concerted effort to achieving net zero emissions by 2050.

This approach provides greater policy certainty for stakeholders, who should have the ability to use some international carbon units to enable them to meet their emissions obligations should there be changes in their future circumstances.

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3. How should New Zealand meet its targets? Pick one:

- domestic emissions reductions only (including from new forest planting)
- domestic emissions reductions (including from new forest planting) and using some emissions reductions from overseas (international carbon units) that have strong environmental safeguards.

New Zealand should meet its targets through domestic emissions reductions and using some international carbon units that have strong environmental safeguards (Option B).

The economic modelling used in New Zealand's Nationally Determined Contribution for the Paris Agreement highlighted that international unit access reduced the cost for New Zealand of meeting its target.

The recent report from NZIER that informed this consultation (to be published) highlights that "economy wide costs fall sharply" with the use of international carbon units.

As a technology solutions company, Vector believes the future holds great potential for further emissions reductions using new energy technologies. International carbon units may buy us the time we need to be able to unlock even greater emissions reductions using new technologies.

4. Should the Zero Carbon Bill allow the 2050 target to be revised if circumstances change? Pick one:

- yes
- no.

No, the Zero Carbon Bill should not allow the 2050 target to be revised if circumstances change.

The ability to revise the 2050 target will undermine predictability and stability in policy settings for the long term.

As indicated in our response to Q2, we support stakeholders being able to use credible international units to meet their emissions obligations should their circumstances change in the future.

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Emissions budgets

5. The Government proposes that three emissions budgets of five years each (ie, covering the next 15 years) be in place at any given time. Do you agree with this proposal? Pick one:
   - yes
   - no.

Yes, three emission budgets of five years each should be in place at any given time.

Having three five-year budgets, rather than a single 15-year budget, will decouple target setting from election cycles. It will also enable New Zealand to accommodate technological and economic developments, which could include:

- the success or failure of the nitrogen inhibitor DCD;
- uptake of EVs and hydrogen-powered vehicles;
- phasing out of diesel passenger vehicles that are adopted to reduce CO_2 due to unforeseen air quality emission issues;
- global financial/political crises;
- energy security risks that could cripple technology supply chains; and
- change in the accounting of GHG rules, e.g. for forestry or changes in GWPs, which may have material impacts on carbon budget calculations.

6. Should the Government be able to alter the last emissions budget (ie, furthest into the future)? Pick one:
   - yes, each incoming Government should have the option to review the third budget in that sequence
   - yes, the third emissions budget should be able to be changed, but only when the subsequent budget is set
   - no, emissions budgets should not be able to be changed.

Yes, the third emissions budget should be able to be changed, but only when the subsequent budget is set.

Vector agrees that any government should also be able to review the second budget.

We note that the Discussion Document's description of "budgets" is at odds with the Motu framework: *An Effective NZ ETS: Clear Price Signals To Guide Low-Emission Investment*, which sets out trajectories of 5 and 10 years with an extension of 1 year each year.

We believe more information and careful evaluation of options as to how the budgets will operate in practice is required.

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7. Should the Government have the ability to review and adjust the second emissions budget within a specific range under exceptional circumstances? Pick one:

- yes
- no.

Yes, the Government should have the ability to review and adjust the second emissions budget within a specific range under exceptional circumstances. This is necessary to address *force majeure* situations, which could have a material impact on the supply of units (e.g. international unit access links are cut off) or their demand (e.g. closure of major plants).

It is important that the hurdle or trigger points for such reviews be identified to provide certainty for potentially affected parties.

8. Do you agree with the considerations we propose that the Government and the Climate Change Commission take into account when advising on and setting budgets? Pick one:

- yes
- no.

Yes, we agree with the proposed considerations that should be taken into account by the Government and the Climate Change Commission in setting emissions budgets.

In addition, we recommend that the following matters be taken into account:

- energy security and reliability;
- the capacity of energy systems to cope with more distributed energy;
- optionality and flexibility of mitigation options;
- other sectors' policies, e.g. fuel pipeline security, incentives for developing methane reduction processes or technology; and
- the international supply of credible carbon units.

In our view, emissions budgets should not be set so stringently that they unnecessarily or prematurely force the adoption of particular technologies, or stifle technological or process innovation that could further facilitate, if not accelerate, decarbonisation.

Government response

9. Should the Zero Carbon Bill require Governments to set out plans within a certain timeframe to achieve the emissions budgets? Pick one:
   - yes
   - no.

Yes, the *Zero Carbon Bill* should require governments to set out plans within a certain timeframe to achieve the emissions target.

Any budget plans must have multiple credible pathways, clearly identifying potential barriers and how these can be minimised, if not removed. Modelling future scenarios should not be too focused on a limited number of abatement options.

We urge the Government to refrain from 'picking technological winners' for the purpose of abating emissions. This would 'lock out' providers who may be willing to provide better and more cost effective technologies from the market, and/or 'lock in' those who made the wrong technology choice, making market exit very costly.

Competitive environments would guarantee that it is investors who carry the risk of technological choices, not taxpayers or consumers.

10. What are the most important issues for the Government to consider in setting plans to meet budgets? For example, who do we need to work with, what else needs to be considered?

Vector believes the Government must ensure that the regulatory framework within which emission budgets are set provides the right incentives for innovation and investment in technologies that facilitate climate change mitigation and adaptation.

Industry regulators, such as the Commerce Commission and the Electricity Authority, should be required to take into account emissions and environmental impacts in their regulatory decisions. For example, the provision of new and innovative technology solutions that contribute to emissions reduction should be allowed through existing regulated businesses under the Part 4 regime of the *Commerce Act 1986*.

It is important that consideration of climate change impact in regulatory decisions is applied consistently across regulators. This will ensure that all sectors have the right incentives to take climate change action.

It is also important that the Government proactively engage with businesses to ensure its commercial and cost assumptions are realistic, and barriers to improvement or innovation are identified and minimised, if not removed.

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Climate Change Commission

11. The Government has proposed that the Climate Change Commission advises on and monitors New Zealand's progress towards its goals? Do you agree with these functions? Pick one:
    - yes
    - no.

Yes, the Climate Change Commission's functions should include advising on and monitoring New Zealand's progress towards achieving its climate change objectives.

The Commission's advisory and monitoring functions, which should be informed by robust analysis, would be a tool for holding governments to account. We suggest that the monitoring and/or reporting roles of the Climate Change Commission, MfE, the Environmental Planning Authority, and other agencies with responsibilities for climate change be clearly defined. This would avoid overlaps and gaps in governance and regulatory arrangements that could create confusion and unnecessary costs for parties who will impacted by the new emission settings.

We agree that the 'government of the day' should have a compelling reason to reject recommendations from the Climate Change Commission.

12. What role do you think the Climate Change Commission should have in relation to the New Zealand Emissions Trading Scheme (NZ ETS)? Pick one:
    - advising the Government on policy settings in the NZ ETS
    - makes decisions itself, in respect of the number of units available in the NZ ETS.

Vector believes that the appropriate role for the proposed Climate Change Commission in relation to the NZ ETS is to advise the Government on policy settings for the Scheme, rather than make decisions itself.

It is reasonable to expect that the Climate Change Commissioners collectively may have a narrower range of expertise than is required for decision making on NZ ETS settings, which requires consideration of wider economic and climate change implications. This could potentially require cross-government actions, including seeking advice from the relevant government agencies and technical experts (where required), and conducting public consultations. This would require more resources than what a Commission with advisory role is expected to be allocated.

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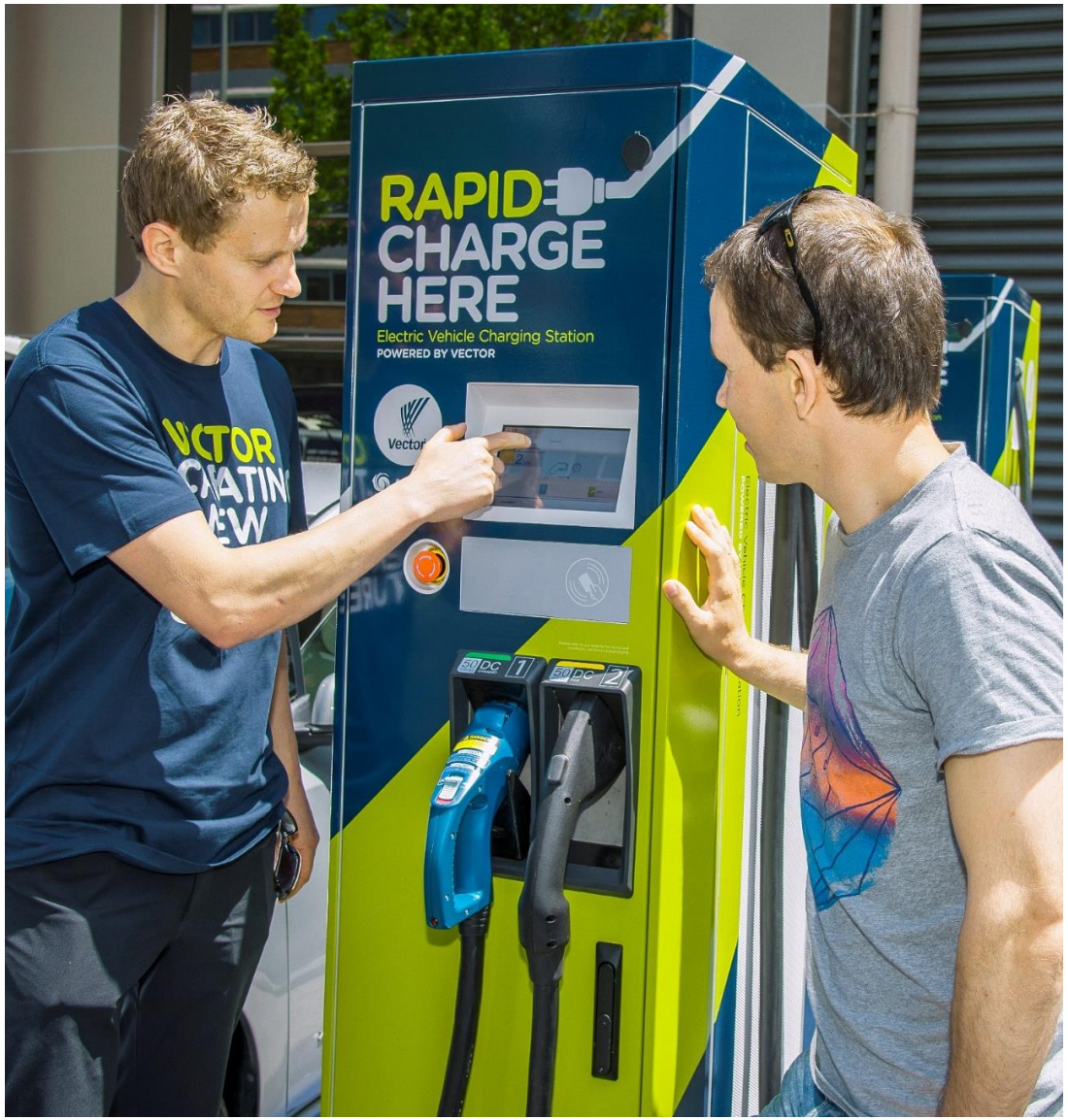


13. The Government has proposed that Climate Change Commissioners need to have a range of essential and desirable expertise. Do you agree with the proposed expertise? Pick one:

    - yes
    - no.

Yes, we agree with the range of proposed essential expertise that Climate Commissioners need to have.

We also consider expertise in "business competitiveness" and "knowledge of the public and private innovation and technology development system" to be essential, rather than just desirable.

We consider expertise in the following areas to also be desirable :

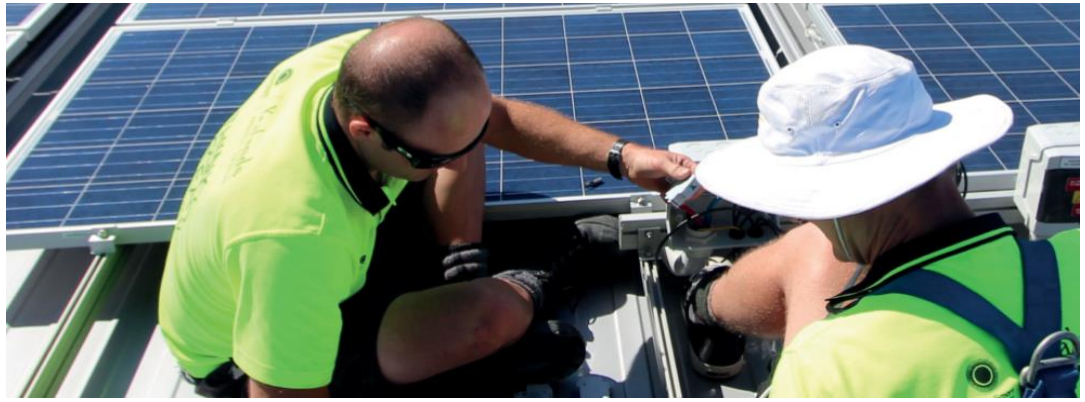
- expertise and/or experience in manufacturing in the emissions intensive, internationally tradeable goods sector;
- experience working with, or advising, New Zealand utilities;
- knowledge and understanding of the global economy; and
- knowledge and appreciation of technological trends and developments, and their implications for the economy and society.

Adapting to the impacts of climate change

14. Do you think the Zero Carbon Bill should cover adapting to climate change? Pick one:
    - yes
    - no.

Yes, the *Zero Carbon Bill* should cover adapting to climate change alongside mitigation. We are already experiencing some of the impacts of climate change such as storm events.

We note that there is limited national guidance on adaptation, to date. Access to good information on adaptation is important so better decisions can be made without the need for various parties to commission their own studies.



15. The Government has proposed a number of new functions to help us adapt to climate change. Do you agree with the proposed functions? Pick one:
    - yes
    - no.

Yes, we generally agree with the new functions proposed by the Government to help New Zealanders adapt to climate change.

It is proposed in the Discussion Document that the *Zero Carbon Bill* include provisions on the following: a national climate change risk assessment, a national adaptation plan, regular review of progress towards implementing the national adaptation plan, and an adaptation reporting power.

We believe greater clarity is required on the allocation of the above responsibilities. It is important that the new Climate Change Commission is not overloaded, and regulatory overlaps and gaps between government entities are avoided.

We support the Government leading the development of an adaptation plan, and the Climate Change Commission assuming responsibility for reviewing the progress of its implementation.

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16. Should we explore setting up a targeted adaptation reporting power that could see some organisations share information on their exposure to climate change risks? Pick one:
    - yes
    - no.

Yes, the sharing of information by organisations on their exposure to climate change risks should be explored, subject to the appropriate privacy, confidentiality, and security settings. There should be clear reporting guidelines, developed in consultation with the reporting parties.

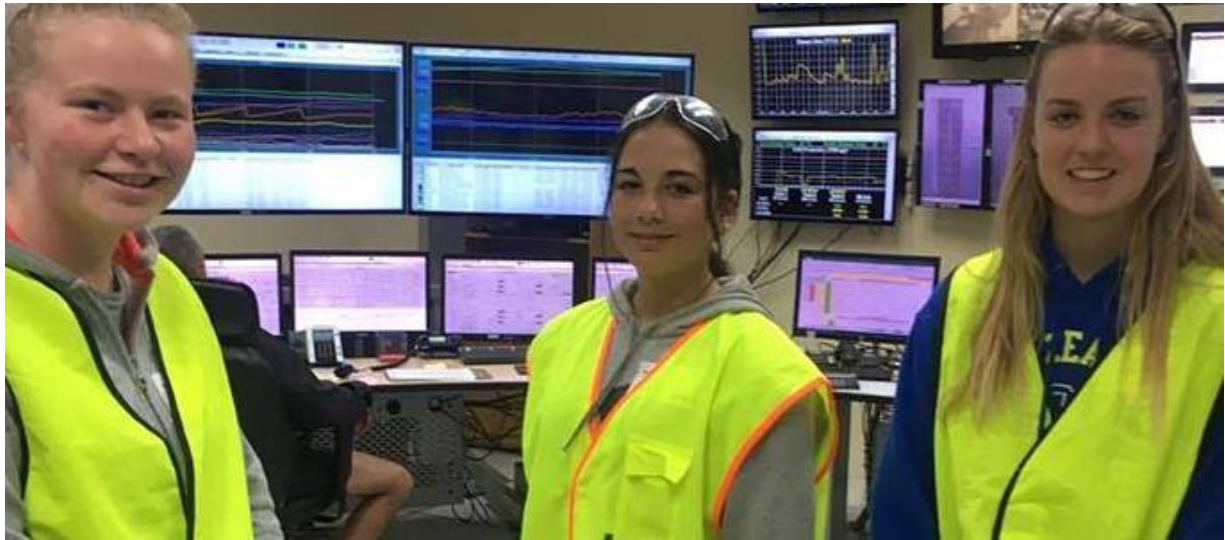
Greater transparency enables parties to make more informed decisions on how they can best respond to the impacts of climate change, and improve resilience for their businesses, households and communities. For example, as a network service provider, it is important that Vector has visibility of the measures being undertaken by other service providers and organisations that would have an impact on our assets and operations, including stormwater management and coastal protection.

We generally support self-reporting by parties, at least initially, on how they are adapting to climate change economically and socially, e.g. how they are coping with energy affordability issues and the impact of mass migration.

Information sharing arrangements could be trialled initially on a voluntary basis, focusing on technical information, e.g. resilience of supply, rather than on financial and other potentially sensitive information. Some local governments and public service organisations may already be providing this type of information as part of their public information programmes.

Vector already discloses information required by New Zealand regulators in relation to its greenhouse gas emissions in accordance with the *Climate Change Response Act 2002*.

As indicated in our response to Q8, adaptation plans and reporting mechanisms should also consider the ability of energy systems to cope with more distributed generation, e.g. increasing uptake of solar PV and residential batteries, and electrification of the transport fleet, which have implications for network management and reliability of supply.



CREATING A NEW ENERGY FUTURE

CONTACT:

Karl Check, Group Manager - Sustainability, Karl.Check@vector.com.au, 09 213 0290

Glenn Conley, Environmental Manager, Glenn.Conley@vector.co.nz, 09 978 8140

www.vector.co.nz

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