Guardians of New Zealand Superannuation (GNZS) response to the New Zealand Productivity Commission's Inquiry into a Low-Carbon Economy

September 2017

Introduction

We welcome the opportunity to comment on the New Zealand Productivity Commission's Inquiry into New Zealand's shift to a low-emissions economy. We support a policy framework that delivers certainty for companies and investors and one that provides a robust price signal to help manage climate change risks.

Climate change resulting from global warming exceeding the 2 degrees Celsius trajectory present significant risks to the global economy. It is therefore essential from an economic perspective that the Nationally Determined Contributions (NDCs) under the UN Framework Convention on Climate Change are met.

We are a global investor with a long-term mandate to help fund New Zealanders' future superannuation payments. Over our investment horizon, we are, and will increasingly be, exposed to climate change risks across our New Zealand and global portfolios. We have developed a climate change strategy to help manage these risks, in particular, risks arising from being on the wrong side of strengthening policy action or disruptive technologies[1]. We believe that both of these risks are relevant to the New Zealand economy.

We have significant (NZD4.9b) investments in New Zealand, extending across farms, forests, infrastructure, property, private equity and listed companies. It is in the short and long-term interests of the Fund to support a transition to a low-carbon economy which will ensure a productive economy. We see new investment opportunities arising out of the response to climate change.

[1] *Investing in a time of Climate Change* (2015) Mercer Investments (Australia) Ltd Report.

There are three New Zealand sectors where clear regulatory and market signals are required to speed the transition to a low-emissions economy: Transportation, Agriculture (including Forestry), and Property (residential & commercial).

The electricity sector is also important, but the challenge is in maintaining the renewable energy leadership we have, compared to other countries, in the face of population growth and the electrification of our transport system. On the opportunities side, we should also leverage the brand benefits from our low-carbon grid for our manufacturing and service industries.

Well-managed companies are those which prepare strategies to manage costs and derive benefits from energy savings, new products and changing consumer demand as the world shifts to a low-carbon economy. Regulation should act as a catalyst for change and be useful in levelling the playing field where necessary.

The key points in our submission are as follows:

- *Cross-party support is key to encouraging private sector change and investment flows – an independent climate change commission may help.*
- *NZ should capitalise on its low-emissions grid by: electrifying its rail and car fleet; promoting low-carbon manufacturing and exports; investing in a world-class mass-transit system for passengers and freight.*
- *In addition to the NZ Emissions Trading Scheme (NZ ETS), use other existing regulation and standards including:*
    - *improving the NZ Building Code standards for energy efficiency.*
    - *improve the emissions standards for vehicles, including vehicle imports.*
- *The NZ ETS is the main tool for incentivising afforestation and emissions reductions from emitters. Currently the NZ ETS is not adequately incentivising more forestry. A properly functioning ETS is essential for our low-emissions transition.*
- *Encourage innovation in solar and battery storage for homes and incentivise electrical vehicle (EV) uptake.*
- *Government procurement policy should be reset– having requirements for energy star ratings in the buildings it occupies and owns (including council homes), transitioning to EV car fleets and car sharing services.*

- *Ensure the build out of wind, geothermal and solar, including domestic solar, to prepare for population growth and the impact of drought on hydroelectricity.*

A. Policy

Q 1. How can the Productivity Commission add most value in this Inquiry?
Q 29. Does New Zealand need an independent body to oversee New Zealand's domestic and international climate change commitments.?
Q.27 What approaches would help embed wide support among New Zealanders for effective reduction of domestic greenhouse gas emissions?

Strong stable policy settings and quality public education are drivers for public and private action on climate change, but require cross-party support. To this end, an independent body may be useful.

Both public and private institutions need to consider a) the long-term risks of delaying full carbon price exposure, and b) the long-term economic benefits to the New Zealand economy of properly pricing carbon and being prepared for a low-carbon future. Globally there is a rise in consumer awareness on climate issues, with resulting opportunities and risks for which New Zealand businesses need to be prepared.

The Productivity Commission can add value by facilitating cross-party support, and in building wider public and private sector support for action on climate change through further research, information and education initiatives. The Productivity Commission has brought together a wealth of information and references during its Inquiry which could be shared more widely.

Meeting our Nationally Determined Commitments requires wide stakeholder support. The government could help build this support through greater public education and availability of information on climate change risks and solutions, including flood and insurance risks, building for example on the Climate Change Commissioner's reports and cross-party initiatives. Other forms of public information could be provided through home energy ratings (such as Homestar), product energy efficiency labelling and property reports (for real estate).

Q 26. What are the main uncertainties affecting NZ businesses and households in considering investments relevant to a low-emissions future? What policies and institutions would provide greater confidence for investors?
Q 39. What do you see as the main benefits and opportunities to New Zealand from a transition to a low emissions economy?

We believe that NZ needs to rapidly transition to a low-carbon economy in order to reduce the future economic risk to NZ from climate change and to remain globally competitive. Cross-party support reduces policy risk and is key to encouraging private sector change and investment flows - a climate change commission may help.

The main uncertainties for business and investors are:

- what is the potential change in the cost of carbon-intensive inputs to the business, which is difficult to price when there is policy uncertainty?;
- what are the other risks to the business from rapid climate change – particularly from physical risks and related insurability or insurance costs?; and
- what is the competitive threat from disruption, for example from technology or changing consumer demands?

The NZ ETS is the cornerstone of NZ's climate change policy for meeting its international obligations. A well-functioning NZ ETS, alongside other market mechanisms, will encourage increased energy efficiency and innovation. Stable and economically meaningful carbon pricing will help to reduce long-term portfolio risks and increase certainty around investments in low emissions alternatives. Risk deriving from political uncertainty and a lack of cross-party support is a notable impediment to encouraging investment into low emissions solutions.

For a long-term institutional investor such as the NZ Super Fund, creating proper pricing of carbon risk is likely to deliver both winners and losers within the Fund's portfolio and across different time horizons. Market forces including carbon pricing will drive the transition of products and services in impacted sectors.

On the other hand, a delayed or poorly managed transition to a low-emissions economy poses a systemic risk to the global and New Zealand economy, increasing the risk of lower company and portfolio returns over the longer-term.

Some companies that we invest in are likely to face increased short-term costs in the move to full surrender obligations. However, they face long-term risks through unpredictable policy, being on the wrong side of disruptive technology, and from physical (and related insurance) risks. Moreover, other companies that we invest in potentially benefit from greater policy certainty and durability and are incentivised to pursue innovative low-carbon alternatives. A properly functioning ETS, for example, should lead to the phase out of the use of coal in electricity production and the manufacturing of dairy milk powder, and of venting of gas at gas plants.

In addressing the short-term impacts on companies, the Productivity Commission may also consider the competitive advantages that an even playing field confers to those firms that have already invested in mitigation solutions over the previous decade, and the material cost savings for firms from investment in energy efficiency.

Cross-party commitment to future policy settings will reduce political risk and increase certainty to provide a more stable policy environment for:

- businesses to manage long-term strategy and capital expenditure (including in R&D);
- investor confidence (including for investments in low-carbon improvements); and
- homeowners to improve energy efficiency and adapt to climate change (including flood-proofing, siting of new homes, insurance cover, and buyer information).

Q 23. How can New Zealand harness the power of financial institutions to support a low emissions transition[2].

New Zealand should create an environment which encourages both local and overseas investors to invest in New Zealand's transition to a low-emissions economy. In particular, clear stable policy signals are important. Globally, for example, the growth in green bonds and low-emissions investments demonstrate strong investor demand. The Climate Bond Initiative 2017 Report shows a US$200bn growth in climate-aligned bonds over the previous year. The Investor Group on Climate Change Australia-NZ survey[3] of institutional investors found that 55% of respondents were already allocating capital to green investments and 100% were intending to increase their allocation in the future. Yet, the two main barriers to allocating capital to low carbon solutions were policy or regulatory uncertainty and lack of investable deals. For example, in New Zealand, the ETS when launched did stimulate a number of

[2] Climate Bonds Initiative Bonds: "Climate Change The State of the Market 2017" Report.
[3] IGGC: Road to Return: Institutional investors and low carbon solutions.

afforestation schemes on marginal land to take advantage of carbon pricing – but the subsequent collapse of the carbon price from a flood of cheap international units rendered these uneconomic. This collapse also increased investor wariness around the policy risk associated with the ETS.

The New Zealand Superannuation Fund is actively investing in renewable energy opportunities including in New Zealand companies with an exposure to renewable energy.

In 2016, we announced our climate change investment strategy to make the Fund more resilient to climate change risk. There are four streams to our strategy - reduce carbon exposure in the portfolio, analyse risks, engage with companies and search for opportunities. As part of our 'reduce' stream, we shifted our physical passive listed equity portfolio away from the highest emitting to lower emitting companies, unless they had leading strategies within their sector to address climate change.

Given New Zealand's low-carbon grid, many New Zealand companies have a lower carbon footprint than their global peers. This could be promoted to investors and customers by the companies themselves if they reported their carbon footprint. Companies should be encouraged to report their carbon footprint through a mix of standards, regulatory requirements and voluntary reporting. Globally there is a growing trend to encourage or require carbon reporting through regulatory measures. There are well-established carbon reporting standards to draw on. Stock-exchanges are increasingly supporting good Environmental, Social and Governance (ESG) reporting. The NZX Corporate Governance Code promotes reporting on environmental and social issues for listed companies, for example.

Investors are also being asked to report on their exposure to climate change risks, including a carbon footprint of their investment portfolio (see the Taskforce on Climate change Disclosure https://www.fsb-tcfd.org/ set up by the G20). In order for investors to do this accurately, the companies in which they invest must also report on their carbon emissions.

B. New Zealand Agriculture

Q 3 – To what extent is it technically and economically feasible to reliably measure biological emissions at a farm level?

Having an accurate method to measure biological emissions at the farm level is important from an incentives and market signalling perspective. Therefore, as a priority, we need to

agree to a standard of estimating farm level emissions that is reliable, cost effective and capable of being committed to. This standard should also be sensitive enough to incentivise behaviour at the farm level.

There are already ways to estimate farm level biological emissions. These include scientific research on average emissions using factors such as animal characteristics, farm productivity, feed intake and manure, types of fertilisers used and nitrogen levels in the soil. There are also international guidelines for estimating agriculture emissions.

We believe that we should use existing research and the Intergovernmental Panel on Climate Change (IPCC) guidelines that already exist to measure biological emissions at the farm level. We also support the government's policy to fund R&D in this area.

Q 4 – What are the main opportunities and barriers to reducing emissions in agriculture?

There are technical challenges in reducing emissions at source on farms. Reducing emissions from dairy farms for example can only be achieved through:

i) reducing the number of cows (and therefore production);
ii) reducing methane emissions from enteric processes;
iii) reducing nitrogen emissions; and
iv) purchasing offsets through, for example, afforestation.

We see the main opportunities and barriers to reducing emissions in agriculture as:

Opportunities:

- Improving nitrogen fertiliser application, animal genetics, pasture species selection and methane-reducing vaccines.
- Delivering significant co-benefits in reducing agricultural emissions through these practices. For instance, good farming practices that are beneficial for our waterways support New Zealand's clean and green reputation, which in turn supports growth in our tourism and agriculture sectors.
- We are supportive of government investment in R&D that seeks to understand the co-benefits of emissions reductions. Part of this R&D should consider ways of rewarding

farmers for the co-benefits that their emissions reductions generate. This is one way of helping to compensate for and encourage best practice.

- There is a valuable opportunity to develop a commercial methane reduction technology (i.e. a methane vaccine). Public and private funding should continue to encourage R&D in this area.
- Future entry into the ETS should generate incentives for agricultural businesses, including suppliers to leverage government research programmes, to plan for offsetting activities (where applicable), and to drive best land use.
- Generating a demand for offsets which encourages further afforestation.

Barriers:

- Not having clarity over when or how the agriculture sector will become part of the NZ ETS is a significant barrier. We recognise the importance of the agriculture sector to the NZ economy. However, mixed policy signals weakens incentives to adopt changes to animal management practices and fertiliser or feed inputs, or invest in off-sets. Increasing clarity over the pathway to integrating agriculture into the ETS should stimulate change and innovation.
- Commercial scale technology for lower-emission farm production doesn't exist yet.

Q 5 – What are the issues for government to consider in encouraging alternative low-emissions land uses?

- Policy and frameworks must support an environment where market forces can drive transition activities and outcomes around land use. Stimulating afforestation on marginal land through a properly functioning ETS is key.
- Any policy settings should be carefully constructed so as to not negatively impact private property ownership rights.

C. Forestry and the ETS

Q 6 – What are the main barriers to sequestering carbon in forests in New Zealand?
Q 7 – What policies, including adjustments to the New Zealand Emissions Trading Scheme, will encourage more sequestering of carbon in forests?
Q 20 – Acknowledging the current review, what changes to the New Zealand Emissions Trading Scheme are needed if it is to play an important part of New Zealand's transition to a low-emissions future?

These are our thoughts on questions 6, 7 and 20.

We support the development of efficient carbon pricing in NZ and internationally. Currently, climate change is a negative externality where prices do not reflect the full cost of producing a product or service. Internalising the carbon costs helps with the proper pricing of risks, so that market valuations of assets are less exposed to the uncertainty or unpredictability of future regulation.

An efficient and all-inclusive carbon pricing system will encourage the right balance between offsets and land use changes, as well as encourage the right "best use" of land moving into the future. Initially the NZ ETS stimulated a considerable level of new land afforestation by investors. However, this was halted as the uncertainty relating to future carbon pricing increased and the utilisation of cheap international credits was permitted. We cannot afford an ETS that does not work. Delaying the actions we need to take under it will simply mean more abrupt changes later.

Therefore, we support:

- An ETS that is simple, certain and ultimately includes all emitting sectors and types of gases.
- A stable policy environment on carbon pricing related matters. The policy environment must be sufficiently stable to make investors comfortable with the idea that carbon pricing at economic levels will prevail. It should not be subject to election cycles.

- Changes to the NZ ETS should encourage all emitters to reduce and/or offset their emissions.
- An ETS where the import of international units do not undermine the value of home grown units.

The government should explore whether it is feasible to modify the definition of forest under the NZ ETS to include a broader range of planting options, i.e. riparian strips or shelter belts.

Q 37 - Should New Zealand adopt the two baskets approach? If so, how should it influence New Zealand's emissions reductions policies and long-term vision for the future?

Our view is that we should align with the international framework for GHGs, including methane and various sources of methane (e.g. agriculture and gas industries) rather than adding extra complexity where it is not required.

We recognise that the make-up of New Zealand's emissions differ from those of other developed countries, but every country has a different emissions make-up. It is important to address shorter-lived but still highly potent GHGs.

D. Transport

Q 10- In addition to encouraging the use of electric vehicles, what are the main opportunities and barriers to reducing emission in transport?

The first priority of a credible climate change strategy in any country is improved public transport and a modern rail network for passengers and freight. Given the significant productivity gains from an efficient, low-emission, mass-transport system, a detailed discussion of the role of our public transport network is a material omission from the Inquiry document.

A key barrier to a low emissions mass-transit system is the lack of a long-term, government-led mass-transit infrastructure investment strategy. New Zealand has the comparative advantage over most countries in having an 80% renewable energy grid, making electrification of transport a big winner in terms of contributions to emissions reductions. New Zealand

should therefore have a clear strategy on the build out of its mass-transit system which includes rail use.

A comprehensive suite of measures is required under national and local government transport strategies aimed at improving the cost, safety, regularity and reliability of public transport or cycling to match or better private car use.

Our vehicle fleet could be rapidly improved through raising fuel efficiency standards. NZ needs to set stringent emissions standards and tackle the issue of the impact of doing so on low-income vehicle owners – potentially by providing relief.

Fuel requirements for biodiesel blends could see notable reductions in emissions from the existing vehicle fleet.

Finally, the rise of car sharing services also offers an alternative to car ownership or multiple car ownership.

Q 8 & 9- What are the main barriers to the uptake of electric vehicles and what policies would best encourage the uptake of electric vehicles in New Zealand.

After a mass-transit system, shifting the car fleet to electric vehicles can also leverage New Zealand's low-carbon grid. This is particularly important as consumer habits move increasing to on-line shopping and home delivery – requiring as a consequence fleets of delivery vehicles.

Currently, emissions standards, cost, choice, range and charging infrastructure are all barriers to penetration of EVs.

However, New Zealand is well placed to encourage the uptake of EVs. Our low-carbon grid means uptake will reduce New Zealand's emissions. Many car owners also have garages where cars can be charged and most car trips are within the range EVs can travel.

However, there are risks in New Zealand, despite its low-carbon electricity endowment, falling behind other countries, and becoming the "dumping" ground for high emissions vehicles.

A number of countries have or are planning to set targets for banning the sale of new gasoline and diesel-only cars. UK and France have announced they aim to ban them by 2040. By 2050 the UK says all cars will need to have zero emissions. In addition, the UK and Europe already have more stringent emissions standards for their car fleets than New Zealand.

New Zealand, without strong emissions standards, could become one of the go-to markets for high emissions second-hand vehicle imports. This could slow EV penetration and slow reduction in our transport emissions. Instead we need to encourage EV manufacturers to see NZ as an attractive market for new and second-hand EVs.

The business sector and government can help create a demand for EVs and generate a second hand EV market. A number of leading New Zealand companies have committed to EV fleets. Government procurement policies should do the same.

The government can incentivise EV ownership, including transitioning of commercial car fleets, by allowing EVs in priority lanes, providing preferential parking, reduced road tax and through the impact of the ETS on fuel.

Government and private sector innovation and investment in EV infrastructure will be required to solve long-range travel challenges.

E. Buildings and Infrastructure

Q 16. What policies and initiatives would best promote the design and use of buildings that produce low greenhouse gas emissions?

New Zealand's Building Code is outdated and behind Europe, UK and Australia. We support the recommendations from the NZGBC submission to the New Zealand Energy Efficiency and Conservation Strategy 2017-2022 (MBIE) for the government to commit to setting a timeline for reviewing and updating the New Zealand Building Code[4] particularly on insulation, ventilation and lighting requirements.

Previously the government had included energy efficiency standards for procurement of government buildings and tenancies. These requirements should be reintroduced. Australia has maintained such requirements in the state sector resulting in more attractive investment for investors. Meeting green standards maintains the broadest market of tenants and tenancy flexibility.

The government could encourage the uptake of solar in homes by ensuring energy can be sold to the grid at levels which incentivise homeowners to invest in solar and battery storage,

[4] NZGBC submission to the draft New Zealand Energy Efficiency and Conservation Strategy by MBIE February 2017

and packages for smart home technology. Distributed power including residential solar may be necessary to meet the demand from an electrified transport system and population growth.

Whilst outside the scope of this inquiry, adaptation to flood and coastal inundation should also be built into building and planning standards to ensure a resilient and insurable residential and commercial property sector.