12 July 2018

Zero Carbon Bill Submissions
Ministry for the Environment
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TO WHOM IT MAY CONCERN

RE: ZERO CARBON BILL

On behalf of Victoria University of Wellington, I wish to commend the government for its commitment to driving policy action to address the causes, impacts and adaptation to climate change. The direction and principles being proposed present a very positive step forward for New Zealand. We agree that the transition to zero-carbon needs to incorporate te ao Māori and kaitiakitanga and be managed with a sense of urgency and determination, but without unfairly disadvantaging business sectors or communities. Providing long term certainty of government direction is important.

Beyond the moral and ethical obligations we have to our future generations, an effective response to climate change also provides opportunities to enhance New Zealand’s international reputation, to develop new areas of economic growth, to address pressing adaptation needs and to bring communities together and improve the health of our natural environment. Research and development will be central to developing that effective response and Victoria University of Wellington is eager to help.

We value academic freedom and many of our academic experts will have shared their personal opinions and expertise through their own individual submissions that can address some of the specific questions you have sought feedback on. From a University-wide perspective this submission will be more principles based. I do, however, want to acknowledge the valuable contributions to this submission made by Professors Jonathan Boston, Dave Frame, James Renwick and Timothy Naish, Associate Professor Ralph Chapman, Dr Judy Lawrence and Victoria University’s Sustainability Director Andrew Wilks.

**Targets**

We encourage you to be ambitious in setting New Zealand’s emissions reduction targets. Our current and future student body, the leaders of tomorrow, will be the ones to inherit the predicament if the leaders of today are not ambitious enough.
Setting a New Zealand target needs to be based not only on the science, but also on ethical and other social and economic considerations. From a scientific perspective, our climate scientists consider New Zealand should be aiming for net-zero emissions for *long-lived* gases by 2050, because of their cumulative impact. However, our methane emissions from biogenic sources are short-lived and thus do not have the same cumulative effects, so the focus should be on incentivising the moderate reduction of the shorter-lived emissions in proportion to their warming impact.

New Zealand is a prosperous and innovative country and the growing threat of climate change has critical ethical, social and economic dimensions. In addition, emissions already in-train will have significant impacts on New Zealand’s ability to adapt. Accordingly, we believe New Zealand should commit to mitigation path targets that are significantly more ambitious than the overall global transition path needed to meet the Paris Agreement target of ‘well below 2°C’. The detail of New Zealand’s international commitments should be calibrated and strengthened accordingly.

Achieving the net-zero target for long-lived gases should be driven by substantially lowering gross emissions. We believe there should be an explicit target for gross emissions reductions, so that New Zealand’s dependence on forestry sequestration or imported units is limited. Such dependence creates policy uncertainty domestically for forest management as it intersects with adaptation policy for the impacts of climate change. We have also learnt since Kyoto in 1997 that New Zealand is unlikely to face up to gross emissions reductions without a clear time-bound commitment to mitigation action. We also recognise that acquiring emission reduction units may, within limits, be a practical necessity, but is not a long-term solution. Ensuring a high level of integrity of acquired units is of fundamental importance. The source of those units is of less importance and could be guided by an independent cost-benefit analysis.

Over the next 30 years we can expect significant changes in our understanding of climate science, in technological development, in social dynamics, in international negotiations, in the impacts we experience from climate change and our ability to adapt to them. Any target set now should be able to be revised in response to such changes; however, the mechanism for doing so must ensure the targets remain ambitious and consistency of government action and direction is maintained. The proposed Climate Commission provides a robust governance arrangement for maintaining that ambition and direction.

**Emissions Budgets**

The evidence from the United Kingdom suggests that interim emissions budgets are worthwhile in incentivising continual action, particularly for long-lived gases. While a clear target for 2050 is needed, we cannot leave it all until 2049 to make changes, because of the cumulative impact of the emissions and the risk that hasty decisions at the wire will be inefficient and create uncertainty across society and the economy. We need to be working steadily towards an ambitious end target by managing our emissions until that point, to stay within an allowable cumulative budget. A planned approach will create the certainty needed within the NZ community. Victoria University of Wellington does not have a view on the structure of those budgets; however, they must contribute to long-term clarity of direction from government.
Climate Commission

Again, the evidence from the United Kingdom suggests that the establishment of an independent Climate Commission is worthwhile in holding the government to account for both mitigation and adaptation which have synergies and potential risks if not managed together. Victoria University of Wellington does not have a view on the specific responsibilities and authority that the Commission should have; however, it is important that it is structured in a manner that ensures it is sheltered from ideological changes in government and can recommend and monitor consistent and clear long-term policy direction.

Adaptation

We are already feeling the impacts of climate change, particularly through severe weather events, coastal erosion and inundation from sea level rise and rising ground water across New Zealand. The impacts are going to intensify. Mitigation and adaptation responses affect each other and both need to be independently assessed periodically for progress and effectiveness, preferably using the same monitoring and review approaches to create certainty for those addressing climate change. A long term government commitment to progressing adaptation planning and action is required urgently, due to decisions being taken now having a lock-in effect long term which should be avoided. The opportunity to set up a parallel monitoring and review arrangement for adaptation planning, alongside mitigation, has great efficiency benefits, can avoid policy inconsistency between mitigation and adaptation and provide a level of certainty for those addressing climate change impacts and adaptation. The government’s Climate Change Adaptation Technical Working Group recommendations provide the policy and planning architecture to ensure consistency in planning and investment processes. The inclusion of adaptation in the proposed Climate Commission for review and monitoring of the implementation of the national Adaptation Plan and Risk Assessment is a critical part of policy design that supports adaptation and mitigation.

Victoria University of Wellington Contribution

The Zero Carbon Bill presents a significant step forward for New Zealand. The success of the Bill will depend on input from New Zealanders across the country and Victoria University of Wellington would like to help. We have research expertise in relevant disciplines including climate science, climate change adaptation, public policy, behaviour change, sustainable energy systems, building technology and design, Māori resource management, environmental economics and law to name a few. Our world leading academics can contribute research to advise policy or to help the Climate Commission.

We are guiding the development of resilient, capable and confident graduates whose critical thinking, creativity and highly developed communication skills will prepare them for dynamic careers as global citizens able to tackle the immediate and future challenges of climate change.

We are contributing to public debate and engagement with climate change issues in our role as critic and conscience of society.
We are reducing our own emissions. Over the past eleven years our greenhouse gas emissions have fallen by twenty percent and we have ambitions to do much more. We are currently exploring pathways to achieve carbon neutrality by 2030.

In summary, Victoria University of Wellington is heartened by the ambition and intent being proposed in the Zero Carbon Bill. Taking effective action to minimise the impacts of climate change is both an inter-generational responsibility and an opportunity. The Bill has recognised that and we want to help make it happen.

Yours faithfully

[Signature]

Professor Wendy Larner
Provost, Victoria University of Wellington