

Zero Carbon Bill

Submission to the Ministry for the Environment

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I strongly support the immediate creation of a Zero Carbon Bill for New Zealand. I strongly support rapid and deep cuts to greenhouse emissions of all kinds (long and short term gasses). I would like to see NZ achieve net zero emissions by 2040 at the very latest (not 2050 as proposed). I would like us to keep open the possibility that we might plan in the future to achieve carbon zero before 2040.

The risks of inaction

I support urgent and comprehensive action because the science about climate change makes it clear that we are on the verge of a destructive transformation of ecosystems, economies, food production, infrastructure, international stability, and human health and wellbeing.

The risks of climate change are bad enough, but three further aspects of our predicament deserve special mention. First, there is an approximate 30-40 year lag in heating. Even if we stopped all emissions today the climate will continue to warm for several decades. Second, there is a lag in human action. We are too slow in the face of crisis. We need to be decisive. Third, I think we underestimate the danger of sea level rise (SLR).

The most recent IPCC estimate (5th Assessment Report) for SLR was 28 to 98cm by 2100. Those numbers are outdated. We now know that marine ice sheets in Greenland and West Antarctica rest on unstable slushy ice, with the risk of being rapidly lifted from their base by sea water seeping underneath, leading to disintegration. Newly discovered processes of ice-cliff collapse and hydro fracture will further facilitate their demise. While this means it is probably realistic now to expect

around two meters SLR by 2100, the problem does not end there. Foster & Rohling (2013)¹ found that on the basis of then CO2 levels of 392 ppm (in 2018 we are at about 408 ppm CO2) SLR would, over 5 to 25 centuries, likely reach 24 meters (at 68% confidence, and with a possible range of 9 meters to 31 meters). This does not bear thinking about. We are forcing a catastrophe on future generations. We must act responsibly and dramatically reduce our emissions.

Feedback to proposals *Our Climate Your Say: Consultation on the Zero Carbon Bill*

1. The 2050 target

I would like to see the government legislate a firm target now, with a 2040 (not 2050) date.

2. The 2050 target

I support a net zero target for all emissions by 2040 (not 2050). This needs to apply to both short term and long term gasses. I appreciate that in the case of short term gasses stabilisation will prevent them from having an additional heating effect. However there is the opportunity for a cooling impact by reducing these gasses, and I think we should take it (I am aware that heating will continue due to the impact of other gasses, what I mean here is that we have the change to factor in a cooling impact by reducing methane and nitrous oxide).

3. The 2050 target

I think we should meet our targets through domestic means only. There is too much risk with using international carbon credits that schemes are poorly monitored and fraudulent. If we take the domestic path only we also have the opportunity and the incentive to plant new forests in NZ, with additional benefits that include biodiversity and erosion control.

4. The 2050 target

The only revisions to the target that should be allowed are those that bring the net zero date forward. This is an option we should allow for. We must plan to be successful and we must make it possible to target even more decisive action in future.

5. Emissions budgets

I am comfortable with the three emissions budgets of five years each.

¹ Gavin Foster & Eelco Rohling (2013) *Relationship between sea level and climate forcing by CO2 on geological timescales*, Proceedings of the National Academy of Sciences, 110(4).

6. Emissions budgets

The only acceptable revision to budgets should be those that bring progress to meeting the target forward.

7. Emissions budgets

Reviews should only be allowed if they bring progress to meeting the target forward.

8. Emissions budgets

I would like the government to also consider the wellbeing of the most vulnerable socio-economic groups in NZ. This does not mean loosening the target. It means ensuring that the burden of costs does not enhance inequality.

9. Emissions budgets

Yes plans should be set out within a timeframe.

10. Emissions budgets

I would like the government to consider issues of social equity when setting plans and meeting budgets.

11. The Climate Change Commission

I agree the Climate Change Commission should advise government and monitor progress. The Commission needs to have legislative authority to ensure that governments are held to account.

12. The Climate Change Commission

I would like the Commission to make decisions itself, rather than simply advise government.

13. The Climate Change Commission

I agree with the proposals in terms of the necessary standing and expertise of committee members. The Commission must not be allowed to be influenced by stakeholder groups that might try to gain concessions for private economic interests – such as the powerful farming lobby.

14. Adapting to the impacts of climate change

I agree the bill must account for the needs of adaptation. Climate change is going to hit us really hard and we will need to allocate resources to cope with the damage.

15. Adapting to the impacts of climate change

I agree with the proposed functions to improve adaptation.

16. Adapting to the impacts of climate change

I agree with this proposal, information sharing would improve standards and compliance.