### Clause 1.

**What process should the Government use to set a new emissions reduction target in legislation?**

**Position**

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.

**Notes**

Meeting the goals of the Paris Agreement requires net zero emissions by the time global temperatures reach "well below 2C" and potentially as low as 1.5C. When this will occur remains unknown, but it may be as soon as mid-century. The Government may wish to consider building flexibility into the Act to allow the date of net zero to be adjusted as the climate response emerges, although clarity regarding the temperature goal (e.g. net zero emissions by the time global temperatures reach 1.5C above pre-industrial, defined as the average 1850-1900) would be helpful.

### Clause 2.

**If the Government sets a 2050 target now, which is the best target for New Zealand?**

**Position**

Net Zero Long-Lived Gases and Stabilised Short-Lived Gases - Long-lived gases to net zero by 2050 while also stabilising short-lived gases.

**Notes**

See our submission: Submission_ZCA_Allen.pdf: reducing the contribution of New Zealand's emissions to the increase in global average surface temperature to zero requires net zero emissions of long-lived gases including carbon dioxide and nitrous oxide, and gradually declining (at approximately 0.4% per year) emissions of the short-lived gas methane. This is equivalent to net zero emissions across all gases if aggregated using the science-based GWP* metric.

### Clause 3.

**How should New Zealand meet its targets?**

**Notes**

This is a political decision: as a non-New-Zealander, I am unqualified to comment.

### Clause 4.

**Should the Zero Carbon Bill allow the 2050 target to be revised if circumstances change?**

**Position**

Yes

**Notes**

An explicit mention of global temperature in the Act would address the possibility that warming may occur faster, or slower, than current estimates suggest: the ultimate goal of the Act is to limit New Zealand's contribution to warming, not warming by any particular date. Allowing the timing of net zero to adjust to the emerging temperature response would address this issue, although it would be helpful for planning to make clear that net zero emissions will still be required at some point, likely early in the second half of this century if the more ambitious interpretation of the Paris long-term temperature goal is adopted.

### Clause 5.

**The Government proposes that three emissions budgets of five years each (i.e. covering the next 15 years) be in place at any given time. Do you agree with this proposal?**

**Notes**

As a non-New-Zealander, I am unqualified to comment.

### Clause 6.

**Should the Government be able to alter the last emissions budget (i.e. furthest into the future)?**

**Position**

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

**Notes**

See response to Q4: an explicit mention of the evolution of global average surface temperature and human-induced warming might be helpful in both the budget-setting and revision process.
Clause 7. Should the Government have the ability to review and adjust the second emissions budget within a specific range under exceptional circumstances? See p36 Our Climate Your Say

Position
Yes

Notes
See response to Q4: an explicit mention of the evolution of global average surface temperature and human-induced warming might be helpful in both the budget-setting and revision process.

Clause 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? See p44 Our Climate Your Say

Position
Yes

Notes
See response to Q4: an explicit mention of the evolution of global average surface temperature and human-induced warming might be helpful in both the budget-setting and revision process.

Clause 9. Should the Zero Carbon Bill require Governments to set out plans within a certain timeframe to achieve the emissions budgets?

Notes
As a non-New Zealander, I am unqualified to comment.

Clause 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?

Notes
The global academic community is very willing to help support the New Zealand government in framing a science-based climate change mitigation programme.

Clause 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? See p42 Our Climate Your Say

Notes
As a non-New Zealander, I am unqualified to comment.

Clause 12. What role do you think the Climate Change Commission should have in relation to the New Zealand Emissions Trading Scheme (NZ ETS)?

Notes
As a non-New Zealander, I am unqualified to comment.

Clause 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? See p45 Our Climate Your Say

Notes
As a non-New Zealander, I am unqualified to comment.

Clause 14. Do you think the Zero Carbon Bill should cover adapting to climate change?

Notes
As a non-New Zealander, I am unqualified to comment.

Clause 15. The Government has proposed a number of new functions to help us adapt to climate change. Do you agree with the proposed functions? See p47 Our Climate Your Say

Notes
As a non-New Zealander, I am unqualified to comment.

Clause 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?

Notes
As a non-New-Zealander, I am unqualified to comment.

Clause
Do you have any other comments you'd like to make?

Notes
A detailed proposal for the inclusion of methane in the Zero Carbon Bill is provided in our submission Submission_ZCA_Allen.pdf, emailed to zcb.submissions on 19th June, 2018

Supporting documents from your Submission

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<thead>
<tr>
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