

Your submission to Zero Carbon Bill

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Reference no: 10116

Submitter Type: Individual

Clause

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

Position

The Government sets a 2050 target in legislation now

Notes

Clause

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

Position

Net Zero Emissions - Net zero emissions across all greenhouse gases by 2050

Notes

Clause

3. How should New Zealand meet its targets?

Position

Domestic emissions reductions only (including from new forest planting)

Notes

Significant pathways to emissions reduction for New Zealand include, (apart from tree planting), 1. The substitution of fossil fuels with carbon neutral biofuel for transport, electricity generation, and industrial process, institutional and domestic heating, 2. Sequestration of carbon for soil remediation with the use of charcoal either as by-product of industrial heat from biofuel, or purpose produced bio-char with heat as the by-product, 3. Remediation of agricultural soils degraded by conventional practices, with restoration of complete natural soil biomes of microflora and microfauna. (Note, an astounding amount of carbon has been released to the atmosphere from this source). (Christine Jones, 2009) These pathways are currently available or are in immediate view. Examples follow: Biofuel cropping. Giant miscanthus on marginal land, a high yielding perennial crop maturing in 3 years, is the preferred species for production of renewable diesel fuel, but is also a superior soil conditioner with carbon sequestration,(Renquist & Kerckhoffs 2012). It would also serve as feedstock for synthesis gas production of other hydrocarbon liquid fuels via the Fischer-Tropsch process. Advanced combustion techniques. MILD (flameless) combustion gives highest heat energy yields with lowest noxious emissions yet achieved (CO < 1 ppm, NOx < 50ppm), and is ideal for burning even high moisture content biofuels. The submitter has been able to demonstrate that this technique works at a 5-10kWe power level and can sustainably consume billet wood directly off-the-stump, when coupled to a pyrolytic gasifier. Thus making very low emissions small scale industrial and domestic burners possible. Application of this type of burner to institutional and domestic heating has far reaching implications. For example, it is possible to configure a domestic burner to work on a 24hr fuel cycle in which the burner is fueled but once per day. Refueling done just prior to the evening national electric energy peak would contribute to the reduction of the evening peak load, and to the following morning peak. At the conclusion of out-gassing charcoal remains that can be used to sustain the fuel chamber temperature until the next fresh fuel loading occurs. A hot start to a new fuel cycle ensures a very fast return to MILD operating temperatures so that there are never any visible particulate emissions. Melhuish suggests that energy efficiency retrofits of 600,000 under-insulated homes, together with adoption of MILD-combustion wood burners in 30,000 hard-to-heat houses could eliminate the need for 6-7 new fossil gas fired electric peaking stations in the period to 2050.

Clause

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

Position

Yes

Notes

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?

Position

Yes

Notes

Clause

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

Position

Yes - each incoming Government should have the option to review the third budget in the sequence

Notes

Implement change only if facts and scientific consensus indicate overall national benefit

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**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**Clause**

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

Position

Yes

Notes**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

Position

Yes

Notes**Clause**

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

Position

Advising the Government on policy settings in the NZ ETS

Notes**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

Position

Yes

Notes**Clause**

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

Position

Yes

Notes**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

Position

Yes

Notes

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?

Position

Yes

Notes