

# Your submission to Zero Carbon Bill

## Reference no: 2632

**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

The only target should be the most ambitious target: reducing total greenhouse gases to net zero by 2050. If you are wanting to treat short-term and long-term gasses differently. Then surely you should also treat gasses that are more-potent (and heat up the planet more) differently to those that are less-potent. For example, Methane heats up the planet 25 times more than Carbon Dioxide. Nitrous Oxide heats up the planet 298 times more than Carbon dioxide. Why would you consider length of time but not potency? 1) We must include Methane in the target: Methane heats up the planet 25 times more than Carbon Dioxide\*. Methane only lasts in the atmosphere for 12 years (instead of CO2 which lasts for hundreds or thousands). But if the objective is to minimise/reduce climate change, we should look at alternatives to reduce methane quickly. We can't afford to continue Methane emissions at current levels as they are the most damaging in the short-term - which is the critical time. We have a booming dairy industry, but that industry is contributing towards the natural weather catastrophes that will end up causing it to fail. It would be better to be pro-active now and deploy ways to mitigate the impact of Methane. Some may argue NZ is a small % of global emissions (0.17%). This is true, but NZ is seen globally as a test market and if we can demonstrate to the world how we can reduce emissions from Agriculture, then bigger markets (with more global impact) will follow. We need to lead with a bold and brave ambition and actions. 2) Mitigate Methane in Agriculture using: a. Anaerobic Digestion - which enables farmers to convert methane into biomethane which can be used as a renewable energy source for fuel, heating, electricity etc. This is successfully used in UK and other markets. b. Methane inhibitors to reduce/delete methane from livestock. There has already been good movement forward in this area in NZ, but we need to move faster. Can we increase funding to speed up research results and make commercial Methane inhibitors available more widely as well as education. 3) We must include Nitrous Oxide in the target. Nitrous Oxide heats up the planet 298 times more than Carbon Dioxide\*. 4) Mitigate Nitrous Oxide in Agriculture using: a. Gibberellins, natural hormones that stimulate plant growth and could be used in pastures instead of nitrogen fertiliser (which currently creates nitrous oxide emissions). 5) Diversity land use from dairy to horticulture or other uses. 6) Off-set overall emissions by planting more trees. \*Source: Our atmosphere and climate 2017 report. Ministry for the Environment, Stats NZ, and data providers, and licensed by the Ministry for the Environment and Stats NZ for re-use under the Creative Commons Attribution 3.0 New Zealand licence.

### Clause

3. How should New Zealand meet its targets?

### Position

Domestic emissions reductions only (including from new forest planting)

### Notes

### Clause

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

### Position

No

### 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**

No - emissions budgets should not be able to be changed

**Notes**

No - emissions budgets should not be altered in response to "economic changes" as this undermines their long-term certainty. However, the ability to revise budgets and make them tighter, in light of major changes in scientific understanding or international agreements should be permitted.

**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**

No

**Notes**

We set ourselves a 'target' to reduce our greenhouse gases as part of the Kyoto protocol - first period (2008-2012). We managed to achieve the targets on Gross emissions. But Net emissions between 2008-2012 actually increased because we cut down a lot of the forests planted in the 90's. We should be using our Gross emissions at the target, and if we need to off-set - then plant more trees. The budgets need to be far stricter so that our businesses and economy have clarity of what's expected and can re-orientate funding, support etc.

**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**

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 Government's policy plans to meet emission budgets should be comprehensive, fair, cost-effective, environmentally sustainable, and reflect a commitment to Te Tiriti o Waitangi. They should consider a prioritised approach, where we first get our Gross emissions under control - initially by off-setting them (and planting more trees). Next, they should focus on the areas that have the biggest impact first. Some of the most potent greenhouse gases are Methane (25 times more potent than CO2) and Nitros Oxide (298 times more potent than CO2) - which make up a huge proportion of our emissions (44.3%). There are some 'quick wins' in the Agriculture industry that could be executed relatively quickly with sufficient funding, where they can look to do the following: 2) Mitigate Methane in Agriculture using: a. Anaerobic Digestion - which enables farmers to convert methane into biomethane which can be used as a renewable energy source for fuel, heating, electricity etc. This is successfully used in UK and other markets. b. Methane inhibitors to reduce/delete methane from livestock. There has already been good movement forward in this area in NZ, but we need to move faster. Can we increase funding to speed up research results and make commercial Methane inhibitors available more widely as well as education. After Methane, Nitrous Oxide needs some work - a) Mitigate Nitrous Oxide in Agriculture using: a. Gibberellins, natural hormones that stimulate plant growth and could be used in pastures instead of nitrogen fertiliser (which currently creates nitrous oxide emissions). And also - the transport industry needs an overhaul. We have too many petrol cars on the road. Kiwi car ownership is one of the highest in the world per capita. We need stronger incentives for kiwis to get into electric cars. For example: a) Incentives/subsidies - you could remove GST from all electric car sales. This would help increase speed of uptake and scale. b) Increase petrol tax further, this would push people to use public transport more or consider electric vehicle. c) Supporting infrastructure for charging stations etc, d) Leading by example and purchasing electric cars for any government vehicles.

**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**

No

**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**

Makes decisions itself in respect of the number of units available in the NZ ETS

**Notes**

I support the establishment of a Climate Commission, whose role should be to devise binding budgets. The Climate Commission should have statutory teeth, otherwise it is merely an advisory group that governments could ignore. Climate budgets should be legally binding and set a bare-minimum ambition, which must be achieved or bettered by government within the prescribed timeframes. While budgets should be binding, policy recommendations from the Commission should be just that - recommendations.

**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**

Yes. This may require a separate adaptation sub-committee within the Climate Commission.

**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**

I agree with the proposed functions below, but recognise that nuance is required in terms of how local councils are involved: • a national climate change risk assessment • a national adaptation plan • regular review of progress towards implementing the national adaptation plan • an adaptation reporting power

**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**

**Clause**

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

**Notes**

A Zero Carbon Act is important to me because I want my children to know what fish tastes like, live in an environment where food is not scarce, and where they don't have to fight for food or water to survive. I want my kids to know we did everything we could to avoid climate change, which is irreversible and brings with it a huge burden of adaptation (mostly for our food supply and delicate ecosystem which has never experienced such a speed of change). The impacts of climate change cannot be un-done, and become exponential over time. A couple of degrees is too much for earth to sustain our current lifestyle. We are already experiencing 1 degree warmer temperature (vs pre-industrial levels) with another degree likely to be 'baked in'. This may seem small, but there was only a 3 degree average temperature change in the central point between the ice ages and Jurassic period. I realise NZ relies heavily on the dairy industry for our GDP, but we are a smart and resourceful nation. With the right incentives and clear direction we will be able to mitigate Methane or diversify our land use while still maintaining a strong economy. This will only happen with clear direction from the government - clarifying our commitment to be net zero on emissions. It's great all Kiwis have the opportunity to input to this decision, however - I hope the specialists in this area make the final decision smartly. Most kiwis do not have the time/energy to read all the research and understand the significance and urgency of the changes needed. We need the current government to make the right decision for us in the long-term. You are the ones that have the information and have the opportunity now to make a significant change. Hopefully the bravest decision is made. There may not be another opportunity for this government to show it is bold and brave and putting the long term health of kiwis first. Also - If the Government sets a 2050 target now, it should set the most ambitious target: reducing total greenhouse gases to net zero by 2050. If you are wanting to treat short-term and long-term gasses differently. Then surely you should also treat gasses that are more-potent (and heat up the planet more) differently to those that are less-potent. For example, Methane heats up the planet 25 times more than Carbon Dioxide. Nitrous Oxide heats up the planet 298 times more than Carbon dioxide. Why would you consider length of time but not potency? 1) We must include Methane in the target: Methane heats up the planet 25 times more than Carbon Dioxide\*. Methane only lasts in the atmosphere for 12 years (instead of CO2 which lasts for hundreds or thousands). But if the objective is to minimise/reduce climate change, we should look at alternatives to reduce methane quickly. We can't afford to continue Methane emissions at current levels as they are the most damaging in the

short-term - which is the critical time. We have a booming dairy industry, but that industry is contributing towards the natural weather catastrophes that will end up causing it to fail. It would be better to be pro-active now and deploy ways to mitigate the impact of Methane. Some may argue NZ is a small % of global emissions (0.17%). This is true, but NZ is seen globally as a test market and if we can demonstrate to the world how we can reduce emissions from Agriculture, then bigger markets (with more global impact) will follow. We need to lead with a bold and brave ambition and actions. 2) Mitigate Methane in Agriculture using: a. Anaerobic Digestion - which enables farmers to convert methane into biomethane which can be used as a renewable energy source for fuel, heating, electricity etc. This is successfully used in UK and other markets. b. Methane inhibitors to reduce/delete methane from livestock. There has already been good movement forward in this area in NZ, but we need to move faster. Can we increase funding to speed up research results and make commercial Methane inhibitors available more widely as well as education. 3) We must include Nitrous Oxide in the target. Nitrous Oxide heats up the planet 298 times more than Carbon Dioxide\*. 4) Mitigate Nitrous Oxide in Agriculture using: a. Gibberellins, natural hormones that stimulate plant growth and could be used in pastures instead of nitrogen fertiliser (which currently creates nitrous oxide emissions). 5) Diversity land use from dairy to horticulture or other uses. 6) Off-set overall emissions by planting more trees. \*Source: Our atmosphere and climate 2017 report. Ministry for the Environment, Stats NZ, and data providers, and licensed by the Ministry for the Environment and Stats NZ for re-use under the Creative Commons Attribution 3.0 New Zealand licence.

**You have elected to withhold your personal details from publication.**

#### Supporting documents from your Submission

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Zero Carbon bill – submission – I have attached this as it may be easier to read in word document, rather than in the notes area – where all the copy is combined together and much harder to read. It is mostly my full response to question 2.

It's great all Kiwis have the opportunity to input to this decision, however – I hope the specialists in this area make the final decision smartly. Most kiwis do not have the time/energy to read all the research and understand the significance and urgency of the changes needed.

We need the current government to make the right decision for us in the long-term. You are the ones that have the information and have the opportunity now to make a significant change. Hopefully the bravest decision is made. **There may not be another opportunity for this government to show it is bold and brave and putting the long term health of kiwis first.**

**Question Q2. If the Government sets a 2050 target now, which is the best target for NZ?**

The only target should be the most ambitious target: reducing total greenhouse gases to net zero by 2050.

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We have a booming dairy industry, but that industry is contributing towards the natural weather catastrophes that will end up causing it to fail. It would be better to be pro-active now and deploy ways to mitigate the impact of Methane.

**Some may argue NZ is a small % of global emissions (0.17%). This is true, but NZ is seen globally as a test market and if we can demonstrate to the world how we can reduce emissions from Agriculture, then bigger markets (with more global impact) will follow. We need to lead with a bold and brave ambition and actions.**

- 2) Mitigate Methane in Agriculture using:
  - a. Anaerobic Digestion - which enables farmers to convert methane into biomethane which can be used as a renewable energy source for fuel, heating, electricity etc. This is successfully used in UK and other markets.

- b. Methane inhibitors to reduce/delete methane from livestock. There has already been good movement forward in this area in NZ, but we need to move faster. Can we increase funding to speed up research results and make commercial Methane inhibitors available more widely as well as education.
- 3) We must include Nitrous Oxide in the target. Nitrous Oxide heats up the planet 298 times more than Carbon Dioxide\*.
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  - a. Gibberellins, natural hormones that stimulate plant growth and could be used in pastures instead of nitrogen fertiliser (which currently creates nitrous oxide emissions).
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