

Submissions form

We seek your feedback on the specific proposals in the Zero Carbon Bill.

Either email this submission to ZCB.Submissions@mfe.govt.nz (Microsoft Word document (2003 or later) or PDF) or post to Ministry for the Environment, PO Box 10362, Wellington, 6143.

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Personal / organisation details

You must provide either a company name or given name(s)

Company name

Given names **Neal Kumar**

Surname **Ghoshal**

Contact person

Submitter type, pick one:

 **Individual**

- 🐦 NGO
- 🐦 Business / Industry
- 🐦 Local Government
- 🐦 Central Government
- 🐦 Iwi / Māori
- 🐦 University
- 🐦 Research Institute
- 🐦 School
- 🐦 Community Group
- 🐦 Unspecified / Other

2050 target

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

Pick one:

- 🐦 **the Government sets a 2050 target in legislation now**
- 🐦 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.

Setting a firm target creates greater certainty and a more stable environment in which investment decisions can be made, early on. By encouraging the required investment into infrastructure at the outset there will be a stronger probability that 2050 targets will be met.

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

Pick one:

- 🐦 **net zero carbon dioxide:** Reducing net carbon dioxide emissions to zero by 2050
- 🐦 **net zero long-lived gases and stabilised short-lived gases:** Long-lived gases to net zero by 2050, while also stabilising short-lived gases
- 🐦 **net zero emissions:** Net zero emissions across all greenhouse gases by 2050.

Managing emissions reduction requires long-term behaviour change. Reducing all greenhouse gas emissions from across all sectors – including the agricultural sector - requires that technologies and new methodologies be introduced early on to combat the long-term effects of global warming resulting from greenhouse gas emissions. Clear policy signals and firm targets will stimulate investment into low emission agricultural techniques, ensuring that NZ is able to be more resilient in terms of managing its cross-sector emissions; managing and preserving its immediate natural environment; and building long-term export

market resilience by maintaining a competitive edge in international markets.

How should New Zealand meet its targets?

Pick one:

- domestic emissions reductions only (including from new forest planting)
- domestic emissions reductions (including from new forest planting) and using some emissions reductions from overseas (international carbon units) that have strong environmental safeguards.

Relying on domestic carbon sinks and abatement technologies will greatly improve both New Zealand's cyclical carbon sequestration capacity and support native biodiversity through substantially increased native forest coverage. This is preferable to transferring emission abatement obligations overseas through the purchase of potentially sub-standard credits.

Internalising domestic emissions reductions will also stimulate investment into research and development of cleaner technologies, practices and abatement methods.

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

Pick one:

- yes
- no.

The only scenario in which an adjustment might be considered necessary is one that demands an even more stringent target to be set (i.e. a target set against a baseline earlier than 1990).

Emissions budgets

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

Pick one:

- yes
- no.

Five-year cycles provide achievable short-term goals that will enable New Zealand to stay on track for meeting its 2050 target.

Should the Government be able to alter the last emissions budget (ie, furthest into the future)?

Pick one:

- yes, each incoming Government should have the option to review the third budget in the sequence
- yes, the third emissions budget should be able to be changed, but only when the subsequent budget is set
- no, emissions budgets should not be able to be changed.**

Setting firm budgets signals stability and certainty to investors. The likely knock-on effect would be a stimulation of local investment in clean tech and a stimulation of inflows of foreign direct investment into New Zealand as a hub for clean tech innovation.

By contrast, on-going adjustments to any given carbon budget should only be done so in the context of where targets are being exceeded or outperformed i.e. if New Zealand's emissions abatement trajectory is on a steeper downward curve than originally estimated, the budgets may be adjusted to reflect that, and in doing so support sustained, strong performance.

Should the Government have the ability to review and adjust the second emissions budget within a specific range under **exceptional circumstances**?

Pick one:

- yes
- no.**

Unless New Zealand is outperforming its targets, in which case the budgets should be revised to sustain forward momentum.

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?

Pick one:

- yes**
- no.

Government response

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

Pick one:

yes

no.

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?

Four key issues to consider are:

1. **Decarbonising buildings:** Adjusting current building standards and codes to support future carbon targets.

A focus on the following areas could deliver positive carbon reduction outcomes:

- a) All new building stock be mandated to adhere to green building codes and meet sustainability criteria. The minimum mandatory requirement be at least Home Star 6, in terms of energy efficiency. Future-proofing new builds should be a primary consideration in terms of capturing the potential for low carbon emission energy generation and storage (i.e. solar conduit battery use and electric vehicle charging capacity in all new builds).
- b) The existing housing stock of 1.8 million homes - 800,000 of which are currently not adequately insulated - represents a significant opportunity and challenge in terms of reducing emissions, with particular regard to Government's recent legislation relating to mandatory heating requirements.

These new mandates, coupled with a potential shortage of affordable insulation and energy efficient heating appliances, suggests that energy-related emissions may be exacerbated by an initial supply shock (where demand outstrips supply). Government should therefore consider whether the existing policy framework is fit-for-purpose in terms of transitioning to a low carbon economy and whether New Zealand be looking to other frameworks i.e. that of the UK where energy rating systems have been introduced, and where subsidies and tax reliefs are leveraged to stimulate investment into and market growth of insulation and energy efficiency products.

- c) In view of the forthcoming Building Code review, building standards such as H1 Energy Efficiency Standard (NZS 421:2009), should be reviewed with the objective of mandating minimum standards that deliver carbon savings through energy efficient buildings. The current requirements are

currently inadequate and should be tightened.

- d) Introducing a Home Star minimum standard for existing homes – rental homes in particular, as a means of improving the energy efficiency of existing building stock, while simultaneously addressing social and environmental equity issues, given that rentals tend to be maintained to a lower standard than owner occupied homes.

2. **Renewables and clean tech:** Leveraging appropriate policy tools to support Governments long-term carbon reduction target through renewable energy generation and Electric Vehicle (EV) charging infrastructure.

For example, manage the anticipated largescale uptake of EVs and associated energy demand management, subsidies and taxes could be leveraged by:

- creating an environment conducive to fast-tracking much needed investment in EV charging infrastructure and incentivising the uptake of EVs in the mainstream / middle / low income market through making 2nd hand EVs as affordable as 2nd hand internal combustion engine vehicles.
- supporting the build out of distributed energy with energy storage, and/or district heating and cooling (with storage)
- sidestepping a potential demand crunch on existing energy sources, transmission and grid infrastructure.
- increasing low carbon utility-scale renewable energy generation (i.e. fast tracking consented utility-scale onshore and offshore wind and ground mounted solar arrays, hydro energy and more).

Encourage investment into infrastructure that supports nascent technologies such as - hydrogen fuel cells

Domestic food security: Transport emissions associated with increased food imports will negatively weight the carbon budget. A recent [report](#) from HortNZ indicates that on the current population growth trajectory, demand will outstrip future supply of domestic production by 2020.

Domestic food supply is pivotal to carbon targets being met, given that food represents the greatest portion of consumption emissions (32% of Auckland's household emissions according to the 2014 report by Motu Economic Research– *Greenhouse Gas Emissions New Zealand: A preliminary Consumption-based analysis* (Romanos, Kerr and Will)); and food and restaurants accounting for 30% of Auckland's per capita consumption emissions according to C40 Cities consumption emissions data report 2018.

Careful assessment of land allocation for housing development is urgently required to ensure that prime growing land is protected from housing development; that domestic supply of vegetables can meet demand; and that climate change and carbon reduction is embedded in land-use and planning policy.

4. **Public transport infrastructure:** Transport accounts for the second-largest share of emissions from households (27% - [Motu Economic and Public Policy Research](#)) and individuals (23% - C40 Cities Consumption emissions calculation).

Ensuring that adequate investment is allocated to public transport infrastructure, particularly in new, high growth areas such as South and North Auckland, is key to reducing per capita carbon emissions. Plans tabled by Greater Auckland ([congestion free network](#) and [Regional Rapid Rail](#)) merit consideration.

High deprivation urban areas should also be prioritised and supported with affordable lower carbon transport options, to ensure that equity issues arising from fuel taxes, for example, are addressed.

In terms of key stakeholders that the government should be working with: If New Zealand does follow the UK Climate Change Act model, it follows that the NZ Climate Change Act would result in a legal requirement for ALL government departments to be responsible for reducing and reporting emissions from their own buildings and estate, and for assessing the carbon impact of new policies.

Strategic partners would include:

- The government departments most likely to lead on emissions reductions (transport, energy, agriculture/primary industries, built environment).
- All Public Service Departments, Non-Public Service Departments, Crown Entities (Crown Agents, Autonomous Crown Entities, Independent Crown Entities) and Crown Entity Companies (Crown Research Institutes and Other Companies).
- School Boards of Trustees and Tertiary Education Institutes, Public Finance Act Schedule 4 Organisations, Reserve Bank of New Zealand, State-Owned Enterprises and Mixed Ownership Model companies.
- Community groups. Behaviour change is pivotal to New Zealand meeting its carbon targets, in terms of reducing household carbon emissions. Communities should be actively engaged, educated, encouraged and incentivised to prioritise energy efficiency, sustainable travel and low carbon consumption habits.
- Large and medium-sized businesses are also key partners, with regard to their influence in shaping consumer behaviour and related environmental outcomes.
- Local Boards, councils and community groups hold valuable knowledge in terms of material opportunities in any given area and holding valuable insight into effective community engagement methods; and effective programme deployment.

These organisations represent the interests of communities, business, NFP and NGOs across New Zealand, all of whom will play a vital role in leading the cultural change and behaviour change required to move New Zealand to zero emissions future.

Climate Change Commission

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?

Pick one:

yes

As informed experts the Climate Change Commission should have a highly influential voice in goal setting.

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

Pick one:

advising the Government on policy settings in the NZ ETS

makes decisions itself, in respect of the number of units available in the NZ ETS.

The Climate Change Commission will be comprised of New Zealand's leading minds/sector/subject matter experts. It will be well-informed to take such decisions, as an independent body.

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?

Pick one:

yes

no.

The balance of expertise within the Climate Change Commission may be further improved if business expertise was added to the mix; the result being a Climate Change Commission that is more representative and informed - to the extent that it can set reliable targets independent of government. Private sector representation could potentially be included on a rotational basis, to improve accountability and avoid the risk of perceived bias.

Adapting to the impacts of climate change

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

Pick one:

 **yes**

 no

Yes, in terms of ensuring that risks are well understood and that the policy framework in place addresses such risks and enables decisive action to be taken to diminish, mitigate or pre-empt risks.

The Government has proposed a number of new **functions** to help us adapt to climate change. Do you agree with the proposed functions?

Pick one:

 **yes**

 no.

Should we explore setting up a targeted adaptation reporting power that could see some organisations share information on their exposure to climate change risks?

Pick one:

 **yes**

 no.

Mandated reporting requirements will serve to improve transparency and will assist organisations and Government in more effective risk management.