



# ADVICE TO FARMERS ON THE ZERO CARBON BILL

The Zero Carbon Bill will have significant implications for the sheep and beef sector and the way we farm into the future.

We encourage farmers individually or as a collective, to have their say about the bill and have provided the following information to help farmers make a submission.

We also encourage farmers to share their views with their local MP and ask them what they are doing to support the sector throughout the process.

## Background

It is useful in a submission to identify the areas that you do support and those areas where you are seeking a change. We provide advice on things you may wish to highlight in this respect.

We also strongly recommend farmers, where possible, talk about the practical on-farm effects of the Bill; the direct economic impacts; and the downstream economic and social impacts on your local economy and community. We provide some suggestions of impacts you may wish to highlight.

The following is the link to the Zero Carbon Bill:  
[www.legislation.govt.nz/bill/government/2019/0136/latest/LMS183736.html](http://www.legislation.govt.nz/bill/government/2019/0136/latest/LMS183736.html)

The following is a link to where to make a submission on this bill: [www.parliament.nz/en/pb/sc/make-a-submission/document/52SCEN\\_SCF\\_BILL\\_87861/climate-change-response-zero-carbon-amendment-bill](http://www.parliament.nz/en/pb/sc/make-a-submission/document/52SCEN_SCF_BILL_87861/climate-change-response-zero-carbon-amendment-bill)

If you have any queries, please contact us for more advice:  
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## Suggested content for your submission

### Farmers' commitment to climate change

New Zealand's sheep and beef farmers are committed to playing their part in addressing climate change and support the intent of the Zero Carbon Bill. Farmers are already experiencing the impacts of climate change through increases in frequency of droughts and extreme weather systems, and support setting up a long-term framework to address the challenge and to play our part globally.

We are looking for a **fair and equitable framework** where emitters are asked to make a similar contributions to addressing climate change based on the impact they are having on additional warming and their contribution to limiting warming to 1.5 degrees Celsius above pre-industrial levels.

We are also wanting to have the same tools as other sectors to offset our emissions, such as the ability to directly offset methane by on-farm trees rather than the more complex and convoluted method of purchasing carbon credits through the Emissions Trading Scheme to get trees recognised.

Sheep and beef farmers have already made a significant contribution to reducing their emissions, without regulation or pricing, and have committed to being carbon neutral by 2050.

Since the 1990s, the sheep and beef sector has reduced its absolute GHG emissions by more than 30 percent, while production has remained much the same and the value of exports has doubled. This has been driven by reductions in sheep and beef numbers, the sheep and beef land area grazed declining 34 percent and improvements in lambing rates and the size of lambs, better feed and feed management, and improved genetics.

Since 1990, emissions from transport have increased by 93 percent. The 24–47 percent gross reduction in methane under the Zero Carbon Bill would mean that sheep and beef farmers would have to reduce their emissions between 48 percent and 64 percent below 1990 levels, by 2050.

There is also a significant area of native and production forest already on sheep and beef farms that is sequestering carbon. The University of Canterbury estimates there is 1.4 million hectares of native forest on sheep and beef farms ([beeflambnz.com/norton-report](http://beeflambnz.com/norton-report)) and we estimate there are around 180,000 hectares of pine trees.

Most of these trees are not included in the ETS for a variety of reasons, including that the current rules are too strict or administration is too costly and time consuming for small blocks of land. Farmers need to get credit for the sequestration that these trees are achieving.

## The Bill

There are a number of positive elements of the Bill that we support and some critical areas that require amendment.

In this document we provide high-level advice for farmers on the following key elements of the Zero Carbon Bill:

- Carbon dioxide being reduced to net-zero by 2050
- Nitrous oxide being reduced to net-zero by 2050
- **Gross methane** emissions reduced by **10 percent by 2030 and by 24–47 percent by 2050**.

The final B+LNZ submission will go into more detail on all of these issues, including the science and economic impacts, but will also cover other areas of the Bill such as the criteria for emission budget setting.

## Areas of the bill that we can support

The agricultural sector is ready and willing to play its part to address climate change. We are taking a principled and equitable approach, where all gases make an equivalent contribution to limiting warming to 1.5 degrees, based on the science of their warming impact.

This means that we support emissions of long-lived gases (carbon dioxide and nitrous oxide) going to net zero by 2050 because these gases are long-lived and must go to zero or below in order to not contribute to additional warming.

We also support biogenic methane emissions being reduced and stabilised at a level that is equivalent to net zero for carbon dioxide and nitrous oxide by 2050.

We welcome the government taking a split gas approach and recognising that methane is a short-lived gas and behaves differently, but believe the methane targets set out in the Zero Carbon Bill are asking methane to do a lot more than carbon dioxide and nitrous oxide. From a climate change perspective, methane is being asked to 'cool' the climate. This is not equitable for farmers.

## Areas of the Bill where we are looking for amendments

Key areas that we want amended in the Zero Carbon Bill include:

- The '**gross**' methane target
- The actual methane reduction ranges.

## Methane targets should be 'net' and not 'gross' and farmers should get recognition for all measurable sequestration on their farms (Net = emissions minus sequestration).

If farmers have to reduce their emissions, it is vital they also get to count the genuine sequestration happening on their farms. We want a system that encourages and incentivises farmers to integrate trees into farms, which will help address climate change, but also deliver other benefits such as water quality and biodiversity.

It is difficult to judge exactly what the impact of 'gross' versus 'net' methane targets is as we do not know what the underlying framework will be. Our understanding is that the gross targets for methane set a much more ambitious target for methane as it does not allow farmers to count sequestration from trees against their methane emissions. This will discourage farmers from planting more trees on their farms to help reduce warming.

Our fundamental principle is there should be equivalent approaches for all gases and farmers should have access to the same tools as other emitters to meet their commitments. Biogenic methane breaks down into water and carbon dioxide which can be used directly by trees. On that basis, we support 'net' targets for methane, the same as proposed for nitrous oxide and carbon dioxide.

We would also like to have a conversation, as part of the Zero Carbon Bill process, about whether there should be limits on the amount of carbon dioxide that can be offset by trees. The bill currently allows all carbon dioxide to be offset using trees with no requirement for real reductions in the carbon emissions themselves. This is expected to lead to widespread planting of pine trees (through the conversion of major tracts of sheep and beef farms into trees) including on more productive soils, and the hollowing out of rural communities.

The Parliamentary Commissioner for the Environment (PCE), in his recent '[Farms, forests and fossil fuels](#)' report recommended **gross** targets for carbon dioxide and **net** targets for methane and nitrous oxide (effectively the opposite of what is in the current Zero Carbon Bill).

The PCE modelled that under a net zero carbon dioxide by 2050 target, that carbon dioxide emissions were likely to only be reduced by only 40 percent by 2050, and 60 percent would be offset by trees. An estimated 5.4 million hectares of land would need to be planted in trees by fossil fuel emitters, which is about 70 percent of the effective land in sheep and beef farms. This will have major impacts on rural communities.

Analysis of statistics in the Wairoa District found that 1000 hectares in sheep and beef farms supports seven jobs, compared to only one job per 1000 hectares from forestry.

In the last few months, we have begun to see a major increase in investment in forestry in New Zealand.

By setting a gross target for methane and net for carbon dioxide and nitrous oxide, we believe the playing field will be tilted even further towards encouraging conversion of entire sheep and beef properties into plantation forestry for carbon credit purposes, regardless of land quality. Once converted, these forests must remain forever, unless the technology for carbon capture and storage is developed.

We therefore recommend that consideration be given to introducing a limit on the amount of carbon that can be offset by trees under the Bill.

We seek an overall net reduction target for methane that is equivalent to net zero carbon dioxide and net zero nitrous oxide by 2050.

Farmers are ready and willing to play their part and make a similar level of contribution to addressing climate change as is being asked of the other gases.

As the Bill is currently drafted methane is being asked to do more to address climate change than carbon dioxide and nitrous oxide.

A 24-47 percent reduction target for methane is far more ambitious than net-zero for carbon dioxide and nitrous oxide.

We explain why this is the case here.

Net zero is essentially short-hand for achieving **no additional warming** from carbon dioxide **from 2050**.

Because carbon lasts for thousands of years in the atmosphere, every unit of carbon dioxide emitted accumulates and adds to warming. It is only when carbon is net-zero (real reductions in emissions plus removals by trees = zero) that it is no longer adding more warming, but the warming already underway will continue for a very long time.

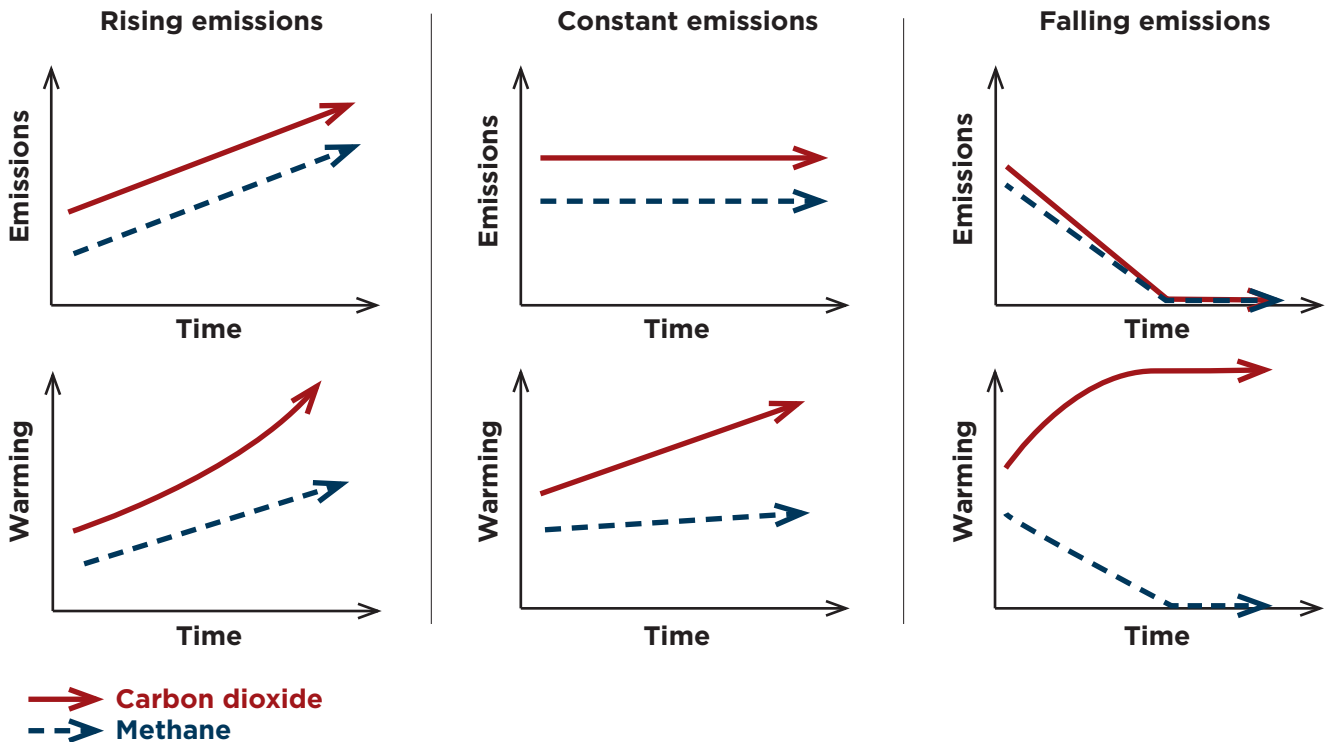
Methane is a short-lived (about 12 years) but very potent gas. Small increases in methane add significantly to warming, but it only needs to be reduced by a small amount to not add any more warming. If methane is reduced by a large amount it has the same effect as cooling.

The science on what level methane should be stabilised or reduced to achieve no further warming has evolved significantly in recent years. Internationally recognised climate scientists from Oxford and Victoria universities have identified a 10 percent gross reduction by 2050 would see methane not contributing any more warming.

The Parliamentary Commissioner for the Environment in a report last year suggested a reduction of between 10-22 percent by 2050 would mean that methane was not contributing to additional warming.

The proposed 24-47 percent reduction in methane in the Zero Carbon Bill is therefore asking methane to “cool” the planet, which is far more than the “no additional warming” target from 2050 for carbon dioxide and nitrous oxide.

This raises significant equity and fairness questions. Why should carbon dioxide from fossil fuels be able to continue adding more warming until 2050 (and have access to trees to offset), while methane is being asked to cool?



Source: Climate Metrics for Ruminant Livestock, Oxford Martin School:  
[www.oxfordmartin.ox.ac.uk/downloads/reports/Climate-metrics-for-ruminant-livestock.pdf](http://www.oxfordmartin.ox.ac.uk/downloads/reports/Climate-metrics-for-ruminant-livestock.pdf)