



Submission on the Climate Change Response (Zero Carbon) Amendment Bill



15 July 2019

OUR BUSINESS

Fonterra is a dairy co-operative owned by around 10,000 New Zealand farmers and their families. Our business is built on a strong and enduring legacy of thousands of innovative and adaptable farmers who have made New Zealand a world leader in the dairy sector.

The dairy sector creates wealth for New Zealand and New Zealanders. The money our farmers are paid for their milk and our Co-operative's profits remain in New Zealand. Since the creation of our Co-operative in 2001, dairy exports have grown from \$6.3b in 2001 to \$17.1b in 2018, and the benefits of this have flowed back into regional New Zealand.

Our strong co-operative values drive our business. We pay our farmers the maximum sustainable price for their milk and our transparent milk price calculation is the envy of farmers the world over. Where once, Kiwi dairy farmers were paid approximately half that of their European or US peers, New Zealand farmers are now consistently paid at parity, or more.

With the support of the New Zealand Government, we have a modern and world-leading dairy sector where our products are desired in markets around the globe and where consumers are increasingly prepared to pay a premium for New Zealand products.

The ultimate strength of the New Zealand dairy sector is the ability of our farmers to innovate and adapt to change. Our farmers will continue to lead the world by producing the highest quality milk, adopting technological advances and committing to increasingly enhance and protect their land.

Fonterra supports a dairy industry that promotes investment in regional New Zealand and where profits are kept at home for the benefit of all New Zealanders. We see a healthy environment as the foundation for a strong economy and a sustainable dairy industry.

The unique attributes of New Zealand's environment must be protected, enhanced and regenerated for generations to come. We will support our farmers, helping them to innovate and adapt to change.

More information about our approach to climate change is in Appendix A

THE PROPOSED LEGISLATION

As a co-operative owned by New Zealand farmers, we take a long-term view for our industry and our country. We support the introduction of legislation which provides a framework for New Zealand to develop and implement clear and stable climate change policies. This is a critical step for New Zealand to contribute to the global effort to limit global average temperature increase to 1.5 degrees Celsius above pre-industrial levels.

New Zealand's emissions profile is unique as nearly half of our greenhouse gases come from the agriculture sector. While most developed nations face the challenge of transitioning industrial processes and moving to renewable energy, New Zealand must find a way to manage and mitigate our animals' natural emissions. We must also address the use of fossil fuels in transport and manufacturing.

New Zealand farmers are already some of the most carbon efficient in the world. This has come about through significant research and investment, and a willingness and ability to adapt over time.

Fonterra supports the Climate Change Response (Zero Carbon) Amendment Bill because it will create a framework and institutional arrangements that will keep New Zealand on track to mitigate and adapt to climate change.

This legislation strikes a balance between flexibility and prescription in New Zealand's long-term transition. A cross-party approach to this critical issue will provide New Zealanders with clarity about the pathway ahead, and give our farmers time to adjust and adapt their businesses.

Both the 2030 and 2050 methane targets are very ambitious and will be a challenge to achieve. They will require a range of solutions that are not in the hands of farmers today and it will take time to determine if they are technically and commercially viable.

Significant investment in research and development will be required in order to meet 2030 and 2050 methane targets. This investment, combined with regular reviews based on robust scientific and economic analysis, will provide farmers with a greater level of clarity about what is expected from them.

New Zealand's success in achieving significant emissions reductions consistent with our international obligations will require genuine collaborative partnership. Fonterra is committed to working with others and playing a leading role in ensuring the New Zealand dairy industry remains at the forefront of low-emissions food production.

CLIMATE CHANGE RESPONSE (ZERO CARBON) AMENDMENT BILL

Key points:

- Fonterra supports the establishment of the Climate Change Commission as a new independent statutory entity.
- With regards to emissions reduction:
 - We support the split gas approach recognising the differences between the shorter-lived gas of biogenic methane and the longer-lived gases of carbon dioxide and nitrous oxide.
 - We support the 2030 target for a 10% biogenic methane reduction, and propose it be subject to reviews in line with the development of the first three emissions budgets.
 - We support the provisional nature of the 2050 target with a commitment to regular reviews undertaken on a consistent and robust criteria by the Climate Change Commission.
 - We support the 2050 net zero target for carbon dioxide and nitrous oxide.
 - The 2050 target for methane reduction is very ambitious and will be extremely challenging to meet with technology currently available. We support a 2050 methane target that is provisionally set at up to 24% net reduction from 2017. Regular reviews of this target must be based on scientific and economic analysis.
- We support the development of a national adaptation plan.

PART 1A - CLIMATE CHANGE COMMISSION

We support the establishment of the Climate Change Commission as a new independent statutory entity.

We believe that the Commission is a key part of the framework to support New Zealand's transition to a low carbon economy. It is appropriate that this Commission is an independent expert advisory body providing advice to the Government.

The Commission will play a vital role in advising the Minister on the emissions that are permitted within each emissions budget period and how those emissions may realistically be met, including the pricing and policy methods available. We support the Commission reviewing these targets on a regular basis.

In the role of advising on emissions budgets, the Commission should be required to consider the most up to date scientific knowledge, the availability of reduction technology, the economic, social and environmental impacts of emission reductions, and the global response to climate change.

PART 1B - EMISSION REDUCTION

- *We support the split gas approach recognising the differences between the shorter-lived gas of biogenic methane and the longer-lived gases of carbon dioxide and nitrous oxide.*
- *We support the 2030 target for a 10% biogenic methane reduction, and propose it be subject to reviews in line with the development of the first three emissions budgets.*
- *We support the provisional nature of the 2050 target with a commitment to regular reviews undertaken on a consistent and robust criteria by the Climate Change Commission.*
- *We support the 2050 net zero target for carbon dioxide and nitrous oxide.*
- *The 2050 target for methane reduction is very ambitious and will be extremely challenging to meet with technology currently available. We support a 2050 methane target that is provisionally set at up to 24% net reduction from 2017. Regular reviews of this target must be based on scientific and economic analysis.*

We support an emissions reduction target being established on the principle of acknowledging the differences between the shorter-lived gas of biogenic methane and the longer-lived gases of carbon dioxide and nitrous oxide. This split gas approach is a pragmatic way to allow for targets and emissions budgets that differentiate how each gas type interacts with the overarching goal of limiting global average temperature increase to 1.5 degrees Celsius above pre-industrial levels.

Both the 2030 and the 2050 methane targets are very ambitious and will be a challenge to achieve. It will require major changes in farming practices to achieve this. In addition, because farming also produces nitrous oxide and carbon dioxide, the Bill implies that total on-farm emissions will have to decrease by about 17% by 2030 and by between 46% and 62% by 2050.

The Biological Emissions Reference Group (BERG) identified that total biological emissions (of all gases including methane, nitrous oxide and carbon dioxide) could reduce by 10% to 21% by 2030 (from a 2017 base) and by 22% to 48% by 2050. However, to achieve these reductions the agriculture sector will need to deploy a comprehensive package of breakthrough mitigation activities, including some that are not yet technically and commercially viable.

We would like to see the Bill provide the appropriate recognition for greenhouse gas offsetting activities, such as the planting of trees and riparian areas, given to farmers.

Implementing the climate mitigations identified by BERG will require actions from processors, farmers and the Government. These are already being planned and will include:

- Developing a comprehensive extension and support programme to help our farmers adapt best practice techniques to their specific farm environments;
- Increasing and accelerating investment into the research and development of emission reducing technologies, particularly those that will break the link between dry matter consumption and methane output;
- Achieving timely regulatory approvals of new products such as vaccines and inhibitors; and
- Investigating and implementing the regulatory changes needed to enable some of these actions if the evidence suggests this is appropriate.

PART 1C ADAPTATION

We support the development of a national adaptation plan.

All scientific projections show that the effect of global warming will continue to increase for decades to come, irrespective of efforts by the global community to start to reduce emissions. We therefore support the development of a national adaptation plan.

APPENDIX A - OUR APPROACH TO CLIMATE CHANGE

As our Co-operative has always done, we will support our farmers to innovate and adapt to protect and regenerate New Zealand's unique environment.

We support our around 10,000 farming families to reduce their emissions by helping them improve their farming practices. Our approach to on-farm sustainability 'The Cooperative Difference', makes it easier for farmers to know what is expected, and recognises those farmers who are taking steps to produce high quality milk in a more sustainable way.

Our Sustainable Dairy Advisors provide industry-leading advice and work hand-in-hand with our farmers to develop tailored Farm Environment Plans. Together they develop an action plan to improve the environmental footprint of their farm. We will provide all of our farmers with a farm-specific report for biological greenhouse gas emissions by the end of the 2019/2020 milk season.

We invest in cutting-edge technologies to reduce agricultural emissions, particularly those that have the potential to break the link between dry-matter consumption and methane output and are members of the BERG and the Pastoral Greenhouse Gas Research Consortium (PGgRC).

We work with DairyNZ to deliver the Dairy Action for Climate Change, which has:

- Built awareness of climate change by running rural climate change workshops around the country, appointing 15 climate ambassadors and training 60 rural professional on the Massey University GHG course;
- Demonstrated the potential biological emissions reduction on dairy farms through farm system changes and quantified the effect on production and productivity;
- Tested an on-farm GHG recording system with 104 farmers and provided them with an on-farm GHG report.

Reducing the impact of our manufacturing operations and our global supply chain

Fonterra operates 30 manufacturing sites across New Zealand. Roughly one third of our sites rely on coal as the primary source of energy, and most are located in the South Island where there is no gas or feasible energy alternatives. The remainder of our manufacturing sites use natural gas to provide process heat. We have been taking steps to change our energy profile.

Since 2003 we have been improving the energy efficiency of our sites and we are on track to reach our goal of a 20% reduction in energy intensity by 2020, based on 2003 levels.

In 2017, with the Ministry for the Environment we created a Roadmap to a Low Emissions Future. We have committed to achieving net zero emissions by 2050, on the way to using 100% renewable energy for our manufacturing operations. We have set an interim target of achieving a 30% reduction in emissions by 2030 based on 2015 levels.

The transition to low emission generation of process heat requires significant investment in many different areas. Another consideration is the range of technology and fuel sources currently available to ensure we can continue to efficiently process our farmers' milk while meeting these targets. We also have a range of existing assets, many of which still have considerable life left.

Some recent examples of our commitment to changing our energy profile are:

- In 2018, our Brightwater site near Nelson switched to co-firing biomass, helping reduce CO2 emissions by 25%, or about the same as taking 530 cars off the road.
- Earlier this year we successfully trialled replacing coal with wood pellets at our Te Awamutu site.
- We are progressing our 'electric milk' program, with electrification of our Stirling site in Otago. By moving to electricity, coal use will be reduced by about 10,000 tonnes per year.
- Fonterra has worked closely with Z Energy since 2014 to introduce biodiesel to New Zealand. Now more than 150 of our milk tankers in the Waikato and Bay of Plenty regions use this product.

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