



Dairy for life

SUBMISSION ON THE ZERO CARBON BILL

19 JULY 2017

FONTERRA CO-OPERATIVE GROUP LIMITED

1. OVERVIEW

We support the establishment of a Zero Carbon Act and the setting of a split gas target

- A strong healthy environment is the foundation for a strong economy and sustainable dairy farming. We support the Paris Goal of keeping global warming to well-below 2 degrees and the establishment of a Zero Carbon Act to help accelerate action and provide clarity on how our country will contribute to global climate efforts.
- We agree with the guiding objectives for the framework and decision-making for the proposed Zero Carbon Bill, namely:
 - Sustainable and productive economy;
 - Global and local leadership; and
 - Creating a just and inclusive society.
- We support a science based approach to setting a 2050 target. In particular, we support:
 - Carbon dioxide and other long-lived greenhouse gases being reduced to net zero by the mid-century;
 - The use of carbon sinks to sequester greenhouse gas emissions; and
 - Stabilisation and some reduction of methane, recognising that as a short-lived gas, methane does not need to go to zero in order to achieve warming of below 2 degrees.
- The greenhouse gas methane does not need to be reduced to zero given it is a short-lived gas and is only in the atmosphere for 12 years before turning into CO₂. Therefore, if it is stabilised, it would not have an additive impact on global warming. The resulting CO₂ from methane does not have an additive impact as it is neutralised by the soil carbon cycle.
- There is not a scientifically determined level at which methane should be stabilised, as essentially this is a lever that may be pulled harder or softer depending on how fast the planet's long-lived gases are reduced. As a known critical step, we support New Zealand prioritising decarbonising the economy and taking a more measured approach to reducing methane to allow time for change on farm and for breakthrough mitigation technologies to be developed.
- A net zero emissions target for all gases would likely have significant negative impacts on the livestock sector and rural communities in New Zealand, instigating significant land use change away from livestock. Whilst the discussion paper suggests that the transition will be planned, gradual and carefully phased in, the requirements for agriculture could create a significant shock to the sector – a sector which through our high quality, adaptive and productive systems makes it a significant portion of New Zealand's economy.
- Seeking to reduce then stabilise methane would still activate change on-farm to seek low emissions farming opportunities, but provide important flexibility and time for the development of breakthrough technologies in methane mitigation which will be needed over the long term. Developing innovative livestock mitigations and sharing this knowledge overseas is likely to be New Zealand's biggest opportunity to contribute to global efforts to reduce emissions and as an industry we have been and will continue to commit considerable effort and investment into methane mitigation research and extension.
- In setting New Zealand's climate target and emissions budgets, it will be important to consider factors such as: the social and economic impact on specific communities, including rural communities; how to continue to enable New Zealand to use its efficient primary production systems to support global food security (for the benefit of our global society as well as New Zealand's prosperity as an export economy); and how to facilitate alignment with other policy objectives such as managing our natural capital resources and driving innovation.

We support the establishment of a Climate Commission to advise and monitor the Government

- We consider the Climate Commission should have an advisory and monitoring role with mechanisms to hold the Government to account. We recognise the importance for the Government of the day to retain its democratic decision-making power, but it could, for example, be required to publicly disclose if that Government chose to deviate from the advice of the Commission.

We support the inclusion of climate adaptation in the Zero Carbon Bill

- We support the proposal for the Zero Carbon Bill to include the provisions for a national climate change risk assessment, a national adaptation plan, regular review of national adaptation plan progress, and an adaptation reporting power.

- We consider that the reporting power should only be able to mandate information from Crown entities or state-owned enterprises, local and central government or private companies that provide public services like energy and transport services, including rail. For relevant private companies, this should only apply to the public infrastructure they provide.
- Disclosure of climate risk related information for other private businesses should remain voluntary or at the request of investors.
- Fonterra already discloses climate risk information through global best practice tool CDP, which uses the recommendations from Michael Bloomberg's Taskforce on Climate-Related Financial Disclosures.

2. OUR APPROACH TO CLIMATE CHANGE

Emissions reduction is a key priority for Fonterra

- Fonterra is committed to acting on climate change. Agriculture depends upon a stable global climate, and is adversely impacted by the effects of climate change such as extreme weather events, flooding, drought, spread of pests and disease, and rising sea levels.
- Agriculture is also a contributor to climate change. Around a quarter of New Zealand's greenhouse gas emissions come from dairy farming. Taking the lifecycle of a product from cow to consumer, 90% of emissions are produced on farm, predominantly from the cows' biological emissions of methane and nitrous oxide. 9% of emissions are produced through the manufacturing process, primarily from the use of fossil fuel energy for processing heat and 1% of emissions are produced through distribution from within New Zealand to the world.
- From a global perspective, New Zealand dairy farming is extremely efficient, due to our productive pastoral systems and the relative productive life of our livestock. Fonterra's New Zealand emissions per unit of dairy is approximately one third of the global average. From a global climate change perspective, the world needs to encourage more efficient productive farming at the levels that New Zealand farming achieves – and countries such as New Zealand should be seeking to share our knowledge to the small scale and less efficient farmers in the world. This has the opportunity to make a far greater impact on reducing global agricultural emissions than efforts in New Zealand alone.

We are taking action on climate change

- We have developed a climate strategy aligned with a split gas approach as follows:

Manufacturing sites

- We have committed to achieving net zero emissions by 2050, on the way to using 100% renewable energy for our operation emissions (this includes our factories and distribution). We have set an interim target of achieving a 30% reduction in emissions by 2030 (from 2015 base year). In partnership with the Ministry for the Environment, we have set out a "Roadmap to Transition to a Low Emissions Future", and as part of this we have recently announced that we will co-fire our first site with 25% wood biomass, and we have started introducing electric vehicles into our car fleet.

On-farm

- We have committed to no increase in our net on-farm emissions between 2015 and 2030. There are currently limited mitigation technologies available to farmers, however empowering farmers through knowledge and awareness is an important first step towards change. Under our Dairy Action for Climate Change Plan, signed with the Government and DairyNZ, Fonterra is trialling New Zealand's first greenhouse gas emissions recording process. DairyNZ has also appointed 15 climate change ambassadors and is providing education and awareness training for farmers.
- We also have an aspiration to reduce global dairy emissions through enabling and sharing mitigation innovations. Fonterra and the dairy sector invests in research for breakthrough technologies such as methane vaccines for cows which, if they become viable, could play a valuable role in mitigating methane. We also already help transfer farming knowledge to lift global productivity, through our dairy development programme working with farmers in Sri Lanka, Indonesia, Chile and elsewhere.

3. CONSULTATION QUESTIONS

2050 target

- 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 **2050 the second half of the century**, and the Climate Change Commission advises on the specific target for the Government to set later.

Comment:

- We support a goal being set for 2050 in alignment with what science suggests is needed to reach the Paris goal of warming well below 2 degrees, and other leading developed countries goals.
- We have set our own goal of net zero emissions by 2050 for our manufacturing operations emissions for this same reason.
- We submit that the specific target should be set later (Option Two), given the amount of ambiguity on what level methane would be stabilised at, and the significant impact the setting at different levels would have on our economy and all sectors within it.
- The legislation could be clear on which of the three target options the Government has selected and the Climate Commission could advise on how this could be achieved. Providing the Government decision making power over the final target would support the target being established through a democratic process.

- 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.

Comment:

- Fonterra supports New Zealand focusing on reducing long-lived gases to net zero by 2050, with stabilisation and some reduction in methane over time through a flexible process.
- There is strong scientific consensus that the world needs to de-carbonise, predominantly through eliminating the use of fossil fuels. We recognise the significant cost on the economy to transition to a low-carbon future, but also the opportunity this will drive through the new technologies and innovations it will bring. The dairy sector has a significant role to play for New Zealand, as one of the largest industrial energy users, which is currently fuelled predominantly through coal and gas.
- With respect to reducing methane, we support a flexible process aimed at achieving change within the bounds of global best practice and available technologies. Flexibility enables acceleration of change if and as new technologies become available and in order to maintain New Zealand's leadership as an efficient primary producer in-step or ahead of other economies. Flexibility also mitigates the risk of driving significant dislocation within the primary sector prematurely, given the potential for breakthrough technologies under development.
- Future climate policies should also take account of the different objectives of reducing long-lived gases to zero and reducing then stabilising short-lived gases.
- A net zero emissions (all gases) or a significant and rapid approach to reducing methane, is likely to have significant negative economic and social impacts on the agriculture sector that could be avoided with Options 2 + a moderate, flexible approach to methane. In addition, Option 2, could allow New Zealand to continue to build its expertise in innovative mitigations to livestock emissions, potentially enabling New Zealand to have a much greater contribution to global emissions reduction than would be achieved through land use change in New Zealand.

- Further consideration will be needed on how exactly the net zero target will be achieved for nitrous oxide and what impact this will have on the agricultural sector. There will likely need to be increased focus on technologies and practices to reduce N₂O.

- 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.

Comment

- Fonterra supports New Zealand achieving net zero emissions by 2050 for carbon dioxide emissions. Therefore, a priority for New Zealand needs to be decarbonising the economy through industry efforts and complementary policy measures. New Zealand needs to avoid a long-term reliance on international units to offset emissions.
- However, we support New Zealand having limited access to high integrity international units, and any arrangements would ideally be designed to share knowledge and create shared value. A separate policy allowing connections to international markets is reasonable for agricultural emissions given New Zealand's position as an emissions-efficient exporter of food, the large proportion of New Zealand's emissions from the agriculture sector, the greater opportunity for agriculture emissions reduction in other countries, and the short-lived nature of methane.
- An example of a shared value scheme could be where a New Zealand agricultural company works with farmers in a developing country to mitigate their emissions, and is able to access any units created as a result of this activity, then have them recognised against New Zealand's target. The United Nation's Food and Agricultural Organisation have a framework for creating projects in the agriculture sector to reduce emissions and issue equivalent units, which could be utilised in this way.
- Our aspiration is to have a positive impact on global dairy emissions through enabling and sharing world leading mitigation knowledge and innovations. A win-win situation such as described above would enable and encourage New Zealand companies such as Fonterra to help developing countries reduce their emissions.
- We believe that access to international units with high environmental integrity and a robust framework providing assurance, is key to enabling innovation and knowledge sharing. We believe the most effective way to achieve this is for private companies to be able to develop projects and access international units directly (not just government-to-government transactions) given the private sector's strength in establishing market opportunities and the potential for shared value mitigation initiatives. However, there would need to be a framework in place to guarantee the integrity of these units.
- If international markets are to be arranged through bilateral arrangements, we are in favour of the New Zealand Government first focusing on countries where New Zealand has key trade relationships, wishes to build them, or where significant opportunities exist for knowledge transfer (e.g. agriculture).
- The international carbon market framework would need to be enduring to enable investment and significant emission reductions to be achieved. However, if the integrity of the market is not upheld, and units in circulation do not meet this expectation, the Government would need to take definitive action to eliminate eligibility of these units.
- We believe the criteria for integrity of international units should include:

- Genuine, measurable & verifiable emission reduction (against appropriate baseline); and
- Projects established with appropriate consideration for human rights and good labour practices (considering local context but reflecting international norms of behaviour).
- Domestic and international units should be able to be used by businesses to make climate product claims, as well as contribute to the Government's target and emission trading scheme. Businesses should not be required to purchase offset units for the same emissions twice, as is currently the case to be able to make a carbon neutral product claim.

- Should the Zero Carbon Bill allow the 2050 target to be revised if circumstances change? Pick one:

- yes
- no

Comment

- In order to improve predictability in climate policy and regulatory settings, it is preferable to have a stable and predictable target.
- However, we also support methane being reduced through a flexible process over time. Therefore, we support a split gas target that can be accelerated for methane if breakthrough technologies are successful in the future.
- We support the proposal of legislation providing a mechanism to revisit the target, with restrictions on what conditions would need to be met for a change to be made, as well as the extent to which it could be adjusted.

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

Comment

- We agree with aligning the time frames to our Nationally Determined Contributions under the Paris Agreement. Fifteen years of carbon budgets helps provides business with greater investment predictability. In addition, setting carbon budgets of five years decouples target setting from election cycles.

- Should the Government be able to alter the last emissions budget (i.e. 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.

Comment

- We support the third budget being able to be changed for all gases, but especially methane as we support a flexible process for reducing and stabilising methane over time. Changing this budget when there is visibility of

the subsequent budgets would provide transparent expectations for reduction planning and therefore improve investment predictability.

- 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.

Comment

- We support the second budget being able to be changed for all gases, but especially methane as we support a flexible process for reducing and stabilising methane over time. This budget should only be able to be changed under exceptional circumstances.

- 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.

Comment

- We support the considerations as set out in the discussion document, including scientific knowledge, technology, economic circumstances and competitiveness of sectors, fiscal circumstances, social circumstances and energy policy.
- We would like to see particular consideration given to the economic and social impact on rural communities.
- Food security should also be given consideration, as set out in the Paris Agreement.
- Economic considerations of the impact on the livestock sector should include the impact on individual farmers, rural communities, national impacts, and impacts on processors.
- Global considerations should also be given when setting the target. For example, New Zealand's greatest contribution to achieving the Paris goal of warming well below 2 degrees may be in developing breakthrough mitigation technologies for livestock and innovative farming systems that increases the productivity of less efficient dairy producers around the world.

- 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?

Comment

- It is extremely valuable to business to have clarity and visibility on the Government's plan to achieve emissions budgets in order to assist business planning and understanding the role business can play to achieve the emissions budget.
- Targets have sometimes been set without sufficient policies in place to achieve them, and in some cases regulatory barriers or conflicting policies have partly hindered business' ability to act (for example, transmission pricing regulation, or lack of complementary R&D and extension investment). It will be highly beneficial for Government to provide a plan with clear and effective policies to achieve the target, including the provision of incentives and assistance and the removal of barriers to enable industry to play their part in meeting the target.
- Government, industry, Iwi and the civil society will need to collaborate together on how the emissions budgets should be met. The transition will require significant effort and investment from the Government and industry, and working together will help ensure the transition is done in a way that improves the country's economic competitiveness and social and environmental wellbeing.
- We support a well signalled and smooth transition, that avoids shocks to sectors and communities. It is important industry has time to adapt and innovate in order to minimise the negative economic and social impacts on the transition on farmers, businesses, households, and communities.
- The Government's plan should also address how to help transition negatively impacted communities. This may include communities reliant on income from fossil fuels, rural communities reliant on emissions intensive land use, etc.
- There is an important opportunity to align climate policy with other policy, in particular other environmental policies and economic development and innovation policy. A holistic approach is needed for the country where it is clear what the environmental, social and economic objectives are, and a package of policies is designed to achieve these. Without an aligned, coordinated approach, different policies risk having perverse outcomes or a combination of policies may collectively have a greater negative impact than what was needed to achieve the country's objectives.
- In our sector, if water and climate policy are not considered together, there is a risk farmers will receive conflicting and confusing signals of what they need to achieve, and/or the negative impact on the livestock sector from separate climate and water policies may be greater than needed to achieve climate and water objectives.
- It is clear business as usual will not help New Zealand achieve a low emissions economy, so we support a much greater focus on climate related R&D and innovation for both on-farm and processing.
- It is also important a global perspective is taken into consideration for example, how can New Zealand best contribute to global emissions reduction, what are other countries policy frameworks, and how does New Zealand's approach to climate change align with the achievement of the Sustainable Development Goals.
- The Climate Commission could provide public analysis on the Government's plan and its view on whether this is sufficient to achieve the target.

Climate Change Commission

- The Government has proposed that the Climate Change Commission advises and monitors New Zealand's progress towards its goals. Do you agree with these functions? Pick one:
 - ✓ yes

no.

Optional comment

- We support an advisory role for the Climate Change Commission with mechanisms to hold the Government to account. The role of the Commission will be further strengthened by ensuring there are mechanisms in place requiring the Government to publicly disclose why it has deviated from the advice of the Commission.
- In addition to the roles set out in the discussion document, we recommend the Commission has a specific role in reviewing the Government's transition plan to determine whether it is sufficient to achieve set emissions budgets.

- 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.

Comment

- We agree with the objectives of the Commission's role in relation to the NZ ETS, that is to support policy certainty and predictability, send a consistent signal to business and encourage more investment in low-emissions technology and carbon sequestration.
- The NZ ETS is one of the mechanisms to enable the transition to a low emissions economy and its settings will play an important role in meeting the emissions budgets and the Government's plan. Therefore, the Commission has an important role in ensuring alignment and providing expert advice to the Government on the impacts of the policy settings.
- It is important the NZ ETS is designed in a way to achieve the Government's target. For example, if the Government adopts a split gas target, the NZ ETS should also treat gases separately given the different objectives for the different gases.

- 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.

Comment

- We agree with the suggested essential expertise. However, we support business competitiveness being an essential expertise, not just a desirable. In addition, we support real world experience in business or farming, especially from high emission industries, to ensure recommendations from the Commission are pragmatic and grounded in reality, as opposed to achievable in theory.

Adapting to the impacts of climate change

- Do you think the Zero Carbon Bill should cover adapting to climate change? Pick one:

- yes
- no

Comment

- There is agreement that countries around the world will need to adapt to a changing climate as a result anthropogenic activity. However, action across New Zealand is uneven, has the potential to be duplicated and opportunities to create efficiencies between mitigation and adaptation effort are being missed.

- 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.

Comment

- We support the proposal for the Zero Carbon Bill to include the provisions outlined in the discussion document.
- The national climate change risk assessment will help provide the information to enable Government, local government industry, farmers, households and others to understand the risks they face and make plans to adapt.
- A national adaptation plan will help ensure New Zealand is preparing for the impacts of climate change, and give co-ordination and direction for local players.
- Regular reviews of progress towards implementing the national adaptation plan will help ensure the country is on track and risks are being mitigated.
- An adaptation reporting power that requires Crown entities or state-owned enterprises, local and central Government or private companies that provide public services like energy and transport services, including rail to provide information on their risks and mitigation plans will help ensure all players have the information they need to ensure their own risks are being mitigated. For relevant private companies, this should only apply to the public infrastructure they provide.

- 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.

Comment

- We support an adaptation reporting power that requires Crown entities or state-owned enterprises, local and central Government or private companies that provide public services like energy and transport services, including rail to provide information on their risks and mitigation plans will help ensure all players have the information they need to ensure their own risks are being mitigated. For private companies, this should only apply to the public infrastructure they provide.

- We do not support Government mandated reporting requirements of private companies that do not provide public infrastructure. This should be provided on a voluntary basis or at the requirement of investors.
- Fonterra already discloses climate risks and mitigations approach through CDP (previously known as the Carbon Disclosure Project). This is an international best practice tool set up to allow investors, customers and others to access participants' climate-related information.
- Government requirements should align with existing best practice. For example, CDP has aligned its risk disclosure approach with the recommendations of Michael Bloomberg's Taskforce on Climate-Related Financial Disclosures.

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