

16 July 2019

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

**TO:** Secretariat  
Environment Committee  
Select Committee Services  
Parliament Buildings  
Wellington

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

## 1. Introduction

- 1.1. This submission is made by the Fonterra Shareholders' Council (**the Council**) on behalf of Fonterra Farmers in response to the Climate Change Response (Zero Carbon) Amendment Bill (**the Bill**). This submission is separate to and independent of the submission of Fonterra Co-operative Group Limited (**Fonterra**).
- 1.2. The Council is a national body of Fonterra Farmers elected by their fellow Fonterra Farmers to represent their interests.
- 1.3. This submission was composed in consultation with our 25 Councillors. We have had insufficient time to adequately to consult directly with all Fonterra farmers.

## 2. Executive Summary

- 2.1. The Council understands the extent to which the biological emissions of Fonterra Farmers contribute to our national greenhouse gas emissions and recognises the necessity for New Zealand to mitigate these emissions over the coming decades in order to meet the commitments it has agreed to as a signatory to the Paris Agreement. Council calls for any regulatory regime dealing with Fonterra farmers' biological emissions to be crafted with care so as to not jeopardise New Zealand's global leadership role on the issue or the international competitiveness of our industry.
- 2.2. With respect to the specific provisions of the Bill, Council:
  - (a) Supports the split gas target approach;
  - (b) Accepts the net zero nitrous oxide target by 2050 and the biogenic methane reduction target of 10% less than 2017 emissions by 2030. Council submits that the range of the 2050 biogenic methane target incorporated in the Bill, namely "at least 24 to 47% less than 2017 emissions", is **not** an appropriate national target. Council submits that the appropriate biogenic methane reduction target for 2050 should be "up to 24% less than 2017 emissions".
  - (c) Submits that the biogenic methane reduction targets should be net emissions reduction targets rather than gross emissions reduction targets;
  - (d) Requests that Central Government commit the resources necessary to ensure the New Zealand scientific community remains at the forefront of research into methods for reducing the biological emissions of farmed ruminants.

## 3. General Comments

- 3.1. Council acknowledges that business as usual in the livestock production sector is not compatible with New Zealand's commitments under the Paris Agreement. We accept that the livestock farming

sector will be required to contribute its fair share to the efforts of the wider economy in achieving those commitments.

- 3.2. Council notes that New Zealand occupies a unique position amongst Annex 1 signatories to the United Nations Framework Convention on Climate Change in that it has the highest proportion of total greenhouse gas emissions comprising biological emissions derived from livestock.<sup>1</sup> This fact highlights the significance of the livestock farming sector to our economy.
- 3.3. Council notes that the emissions intensity of the food produced by our livestock sector is already amongst the lowest in the world.<sup>2</sup>
- 3.4. These circumstances mean that New Zealand is both a world leader in the field of ruminant emissions and also the country with the most to lose from measures designed to mitigate those emissions. Therefore, we believe that any regulatory regime aimed at mitigating our sector's biological emissions must be crafted with care. It should foster our global leadership role in tackling ruminant emissions, but at the same time not jeopardize our competitiveness in export markets. Otherwise we risk the perverse result that livestock emissions simply leak offshore if higher emissions intensity farmers displace us in export markets. We firmly believe that this would be detrimental to global efforts to combat climate change.

#### 4. The Split Gas Target Approach

- 4.1. Council supports the split gas target approach.
- 4.2. Adopting a split gas target rather than a basket of gases target avoids the perverse outcomes for the climate which would occur if attention is unduly focused on short term gases at the expense of focus on long term gases.<sup>3</sup>
- 4.3. Council notes that reports from the IPCC,<sup>4</sup> The Parliamentary Commissioner for the Environment,<sup>5</sup> and the New Zealand Greenhouse Gas Research Institute<sup>6</sup> all contemplate stable climate positions where biogenic methane emissions are significantly reduced but not completely eliminated. Those reports give us comfort that humankind's 10,000-year-old practice of ruminant farming will form part of a climate stable future. Council wants to ensure that Fonterra farmers are well positioned to succeed in that future.

#### 5. The Methane Reduction Targets

- 5.1 Council supports biogenic nitrous oxide and methane reduction targets which are economically viable and scientifically justified as necessary to fulfill New Zealand's Paris Agreement commitment to

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<sup>1</sup> Parliamentary Commissioner for the Environment *Climate Change and Agriculture: Understanding the Biological Greenhouse Gases*, October 2016 at 21.

<sup>2</sup> At 26

<sup>3</sup> Reisinger *Scientific aspects of New Zealand's 2050 emission targets* New Zealand Agricultural Greenhouse Gas Research Centre, June 2019 at 3.

<sup>4</sup> Intergovernmental Panel on Climate Change *Special Report on Global Warming of 1.5°C* IPCC 2018.

<sup>5</sup> Parliamentary Commissioner for the Environment *Farms, forests and fossil fuels: The next great landscape transformation* March 2019.

<sup>6</sup> Reisinger *The Contribution of Methane Emissions from New Zealand Livestock to Global Warming* New Zealand Agricultural Greenhouse Gas Research Centre, August 2018.

“holding global temperature rises to well below 2°C above pre-industrial levels and pursuing efforts to limit temperature increases to 1.5°C above pre-industrial levels.”<sup>7</sup>

- 5.2 Council accepts the net zero nitrous oxide by 2050 target, and the biogenic methane reduction target of 10% less than 2017 emissions by 2030.
- 5.3 Council submits that the range of the 2050 biogenic methane target incorporated in the Bill, namely “at least 24 to 47% less than 2017 emissions”, is **not** an appropriate national target.
- 5.4 Council notes that studies conducted by Vivid Economics<sup>8</sup> and the Productivity Commission<sup>9</sup> modelled different scenarios to achieve compliance with our Paris Agreement Obligations. These models did not require such drastic biogenic methane reductions to reach their stated goals.
- 5.5 In the absence of major scientific breakthroughs, a 47% methane reduction by 2050 would require an approximately proportional reduction in the number of ruminants farmed by 2050. Council believes that this outcome would be catastrophic for the livestock production sector, rural New Zealand and the New Zealand economy as a whole.
- 5.6 The livestock production sector remains vitally important to the New Zealand economy. It currently contributes 32% of the nation’s total exports of goods and services.<sup>10</sup> Its contribution to the economy reaches far beyond the farm gate. The dairy sector alone employs 40,000 workers; 27,500 on farm and a further 13,000 in processing. It has created jobs at double the rate of the rest of the economy since 2000, and those jobs have been relatively well paid.<sup>11</sup> Council believes that a target which potentially requires almost half of the livestock farming sector to disappear within 30 years would necessitate a rate of change which does not represent a fair and just transition for rural New Zealand. It would be incompatible with the notion of a “just transition of the workforce” which is referenced in the preamble to the Paris Agreement.
- 5.6 Council submits that the appropriate biogenic methane reduction target for 2050 should be “up to 24% less than 2017 emissions”. This is the most prudent approach given the current feasibility and availability of mitigation tools, and that the science and understanding of methane and its effect on warming is still developing.

## 6. The Gross nature of the target

- 6.1. Council submits that the biogenic methane targets should be **net** emissions reduction targets rather than gross emissions reduction targets.
- 6.2. Modelling of emissions reductions pathways for the world to meet the Paris Agreement commitments commonly exhibit net zero emissions of long-lived gases and deep reductions to short lived gases by 2050. However, there are viable emissions pathways to achieving the Paris

<sup>7</sup> The Paris Agreement Article 2.

<sup>8</sup> Vivid Economics *Net Zero in New Zealand: Scenarios to achieve domestic emissions neutrality in the second half of the century- Summary Report* Prepared for Globe-NZ (March 2017) at 7.

<sup>9</sup> New Zealand Productivity Commission *Low Emissions Economy* August 2018 at 59.

<sup>10</sup> Statistics New Zealand <[https://www.stats.govt.nz/browse\\_for\\_stats\\_/industry\\_sectors/imports\\_and\\_exports](https://www.stats.govt.nz/browse_for_stats_/industry_sectors/imports_and_exports)>

<sup>11</sup> New Zealand Institute of Economic Research (Report prepared for Dairy Company Association of New Zealand) *Dairy trade’s economic contribution to New Zealand* (February 2017).

Agreement targets which involve greater or lesser reductions in methane emissions. Hardwiring a gross methane target into our legislation effectively chooses one of those pathways for the Nation. While this may provide certainty, it reduces the scope for flexibility in the economy as we transition to a low carbon world.

- 6.3. A gross target, by precluding the fungibility of biogenic methane emissions, has the potential to distort the carbon market. Under such a target, biogenic methane would not participate in the price discovery function of the domestic carbon market. In 2019, it is not possible to be certain that biogenic methane will not be the best use of our Nation’s carbon budget in 2050. However, a gross target is implicitly making that assumption.
- 6.4. A gross reduction target could lead to a perverse outcome whereby the livestock sector is required to reduce absolute emissions rather than utilise economically viable offsets which might be available in 2050.
- 6.5. Livestock farmers are natural participants in the carbon market. They are responsible for a large proportion of the country’s emissions and their land can almost always be used for growing trees which is the principal greenhouse gas offset available in New Zealand. It seems incongruous that they should be able to utilise the carbon market to offset their nitrous oxide emissions but not their methane emissions.
- 6.6. Council agrees with the Ministry for the Environment officials who concluded in the Regulatory Impact Statement accompanying the Bill that imposing an absolute cap on biogenic methane “would impose unacceptable and unnecessary constraints on the New Zealand economy in the absence of viable abatement options.”<sup>12</sup>
- 6.7. Council is concerned that a gross target may make it more difficult to capture a sustainability premium in our markets. If we are to lead the world in dealing with our livestock emissions, we need every opportunity to extract value from that leadership position. Assuming a continued absence of viable technological solutions for reducing methane emissions, the livestock farming sector will be forced to reduce stock numbers to meet the target. We believe this is a more difficult value proposition to sell to consumers than if we are able to meet the target by utilising offsets: “The greenhouse gases emitted in the production of this milk are 24% lower than in 2017” is a more compelling story than “we produce 24% less milk than we did in 2017.” The Regulatory Impact Statement points to the co-benefits of acting on emissions and especially where we are world leading.<sup>13</sup> We believe a marketing advantage is a potential co-benefit of a fungible methane target.
- 6.8. Council accepts that an absolute reduction in agricultural greenhouse gas emissions is highly likely to be a key feature of our Nation’s emissions profile in 2050. Forecasts of a high carbon price by 2050 (as the economy targets net zero emissions of long-lived gases) suggest the case for switching land use from livestock farming to forestry will be compelling. Absolute emissions reductions are likely to be more affordable than recourse to offsets for the remainder of the livestock sector to meet

<sup>12</sup> Ministry for the Environment *Regulatory Impact Statement* accompanying the Bill at 65.

<sup>13</sup> At 54

its methane target.<sup>14</sup> However, this does not *have* to be the case. The future is difficult to predict. Council submits that reframing the biogenic methane target as a net target would provide a desirable safety valve for both the livestock sector and the wider economy as we transition to a low carbon future.

## **7. Request for Research and Development Resources**

7.1 Council requests that Central Government commit the resources necessary to ensure the New Zealand scientific community remains at the forefront of research into methods for reducing the biological emissions of farmed ruminants.

7.2 Our livestock numbers form only a tiny fraction of the 1.6 billion cattle, 1.4 billion sheep and 1.2 billion goats farmed globally. However, we have a scientifically advanced agricultural economy. The world will be watching for our response to the issue.

7.3 New Zealand would make an enormous contribution to the global response to climate change if we were to develop viable technological abatements to ruminant greenhouse gas emissions.

7.4 By contrast, even if we totally dismantle our livestock farming sector, the effect on global climate change would be negligible.

**8 Council requests the opportunity to make an oral submission to the Committee in person.** This request is separate to and independent of any similar request made by Fonterra Co-operative Group Limited.

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<sup>14</sup> At 172. The authors note that emissions prices in 2050 are likely to be in the range of \$150 to \$250 per tonne which is equivalent to the ranges anticipated by other developed countries to achieve their Paris targets. They also note a Sense Partners study which found the break-even carbon price for dairy farming is greater than or equal to \$100/tonne.