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Submission on: **New Zealand Emissions Trading Scheme Review 2015/16 – Discussion Document and call for written submissions (ME 1219)**

From: DairyNZ

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1. INTRODUCTION

1.1 DairyNZ welcomes the opportunity to submit to the Ministry for the Environment (MfE) on New Zealand's Emission Trading Scheme Review 2015/16. We are supportive of the Government's decision to continue to exclude biological emissions from the Emissions Trading Scheme (ETS) on the basis that the conditions established following the 2011 review have not been met. However, we are mindful of the fact that dairy farmers contribute to the ETS via the transport and energy sectors and therefore could be impacted by any changes which come out of this review. We believe it is premature to phase out transitional measures at this point in time given the state of play internationally, the supply of units and the current level of political uncertainty.

1.2 We support the Government adopting an approach to New Zealand's domestic climate change policy framework which looks at the bigger picture and develops a long term plan to achieve the overarching objective of transitioning to a low carbon economy. DairyNZ acknowledges that in order to achieve this goal, action will need to be taken globally to reduce global nitrous oxide and methane emissions.

1.3 DairyNZ believes a domestic policy framework which treats agriculture differently from the wider economy should be established. The framework should focus on the GHG initiatives underway, such as the research and development being undertaken by the Pastoral Greenhouse Gas Research Consortium (PGgRc), and leverage the activities which are underway in the nutrient management space which have a co-benefit for climate change. This approach provides time and flexibility for the Government, New Zealand's dairy industry and broader agricultural sector to work together to develop an appropriate framework to deal with agricultural emissions.

1.4 DairyNZ would want to work in partnership with the Government and the broader agricultural sector to develop an alternative framework to address biological emissions. We would like to continue to be involved in any developments and changes made to the Emissions Trading Scheme which come out of this review.

2. BIOLOGICAL EMISSIONS AND THE EMMISSIONS TRADING SCHEME

2.1 DairyNZ supports the continued exclusion of biological emissions from the ETS. New Zealand has a unique emissions profile when compared to other developed countries. Forty eight percent of New Zealand's emissions come from agriculture. This makes it challenging for New Zealand to reduce its GHG emissions: given the current lack of mitigations available to reduce biological emissions there is very little New Zealand can do to reduce its agricultural nitrous oxide and methane emissions.

2.2 Some small reductions could be achieved on-farm by altering a number of current farm practices including using less nitrogen fertiliser, increased use of low nitrogen supplementary feed and via improved reproductive performance. In order to achieve this reduction the present skill level of the average dairy farmer would have to improve significantly and the overall impact of these changes would be unlikely to dramatically reduce GHG emissions. DairyNZ already works with farmers to continuously improve measures for productivity and sustainability outcomes. However, achieving significant results on a national scale takes time.

2.3 The only way to dramatically decrease the dairy industry's biological emissions is to reduce livestock numbers and limit production growth or through the availability, commercialisation and widespread adoption of suite of new breakthrough technologies.

2.4 It therefore makes sense to take an approach which is realistic about the emissions reduction contribution different sectors of New Zealand's economy can make via the ETS. Placing a price on biological emissions at this point in time would not achieve the ETS's objective to support and encourage global efforts to reduce greenhouse gas emissions.

3. Dairy industry initiatives to address biological emissions

3.1 DairyNZ is committed to reducing the environmental impact of dairy farms as part of our Strategy for Sustainable Dairying 2014-2020. We have set a strategic target whereby by 80 percent of New Zealanders agree dairy farmers are good stewards of the environment by 2020.

3.2 To meet this target DairyNZ is undertaking and funding a range of extension and research and development activities. A number of these are either directly linked to or have synergies with reducing the sector's biological emissions.

3.3 We are investing alongside the Government and other members of the agricultural industry, in the research and development being undertaken by the Pastoral Greenhouse Gas Research Consortium (PGgRc) to address biological GHG emissions.

3.4 We are also undertaking a Primary Growth Partnership (PGP) project Managing GHG Emissions which aims to develop:

- A network of certified GHG consultants;
- An accurate and verifiable tool for accounting GHG reductions. This project is still in the early stages;
- A framework to support farmers to understanding their GHG emissions and options for GHG mitigation while meeting other farm business objectives.

3.5 In addition, wider dairy industry science and technology has co-benefits for GHG emissions reductions, such as the Pastoral 2 II project which aims to implement new dairy systems integrating proven component concepts to increase profitability from production while reducing the environmental footprint. Analysis of the results has shown there is a positive relationship between reducing n-leaching and reducing on farm nitrous oxide emissions.

3.6 DairyNZ's has also helped farmers in six regions (Waikato, Otago, Bay of Plenty, Horizons, Hawkes Bay and Canterbury) implement Sustainable Milk Plans (farm environmental plans) on their farms. Farmers in these regions have committed to individual actions to improve nutrient management which reduces nitrogen and nitrous oxide emissions in their catchments. These plans are now being piloted in Northland and Southland.

3.7 The PGP *Transforming the Dairy Chain* project focusses on the application of precision agriculture to understand and realise opportunities for production and resource-use efficiency gains – this project also has the potential to have spill over benefits for GHG reduction.

3.8 Other dairy industry investments focussed on productivity may have a positive effect on GHG emissions. Although the relationship between an intervention and a GHG outcome is not always clear (as it is not a primary objective) and the quantum of GHG reductions for these activities is not modelled.

3.9 The dairy industry also has frameworks in place to assist farmers build capability and adopt new technologies and practices when available. DairyNZ's extensive advisory and support network is working to build farmer capability

over time in a range of areas that are likely to have co-benefits for GHG emissions. While, Fonterra's Supply Fonterra programme supports farmers to understand their performance against a range of environmental criteria, including their nitrogen use efficiency to identify opportunities to improve performance.

4. Financial implications of bringing biological emissions into the ETS

4.1 Analysis undertaken by the New Zealand Institute of Economic Research (NZIER) for DairyNZ and Fonterra shows that placing a price on biological emissions will have a broader affect than just impacting farmers. It will impact rural communities and their economies, result in job losses and could result in reduced expenditure of farm services. Dairy farms in Northland, Auckland and the Upper South Island run the risk of becoming unprofitable.

4.2 NZIER estimates a carbon price of $25 per tonne of C02e on methane and nitrous oxide in 2030 could:

- Cost the average farm around $50,000 per annum. This equates to 13 percent reduction in the farm's operating surplus by 2030.
- Place an $800 million liability on processors per annum as the point of obligation for on farm biological emissions.
- Result in around 4,500 jobs losses on dairy farms nationally, with Waikato and Canterbury facing the biggest losses, 900 and 1019 respectively.
- See land values per hectare reduce regionally by an average of 8-11 percent

4.3 **International impact of biological emissions being included in New Zealand's ETS**

4.4 Placing a price on biological emissions will also have impact internationally as it is likely to see New Zealand's milk production displaced to a less efficient producer, which would result in carbon leakage. New Zealand is currently one of world's most efficient producers. Analysis undertaken by the NZIER and NZAGRC for DairyNZ and Fonterra shows the average New Zealand dairy farm is four times as efficient as the global average dairy farm. If New Zealand's milk production[1] did not meet the predicted increased demand for milk by 2030 as a result of a price on biological emissions, then it is likely that a less efficient producer would fill the gap resulting in an increase in global emissions and carbon leakage.

4.5 NZIER and NZAGRC's estimates this could amount to 13 mega tonnes of biological entering the atmosphere from 2020-2030[2] if New Zealand's milk production is displaced. This equates to 34 percent more global biological emissions in 2030 than if New Zealand was to produce the milk.

5. ALTERNATIVE FRAMEWORK TO THE ETS FOR THE TREATMENT OF BIOLOGICAL EMISSIONS

5.1 DairyNZ supports establishing an alternative framework to address biological emissions outside of the ETS in partnership with Government and the broader agricultural industry. The framework would focus on establishing a long term plan to transition New Zealand to a low carbon economy.

5.2 Instead of focussing on the actions which can be taken now to reduce on-farm emissions via the ETS, DairyNZ believes the sector and the Government need to work together to establish a long term pathway for the treatment

[1] New Zealand currently produces 3 percent of the world's milk.
[2] NZIER – report provided to DairyNZ and Fonterra (2015)

of agriculture which goes beyond the 2020-2030 timeframe. We believe this approach will help alleviate the risk of simply increasing the financial burden on the dairy industry without reducing biological emissions.

5.3 An alternative framework could involve setting up infrastructure to lend additional support to the research and development being undertaken in New Zealand and overseas and to create a framework to test new mitigation technologies and options, help enable market and consumer acceptance and implement and incentivise adoption on-farm. It could take the form of a voluntary greenhouse gas agreement between the industry and the crown. Whereby the different parties work collaboratively to explore the activities which could be undertaken over the next five to ten years to address biological emissions over the longer term.

5.4 The framework could include commitments from both the dairy industry and government to:

- Establish an on farm measurement framework which has careful regard for its effect on farm systems, competitiveness and other environmental outcomes such as water quality;
- Prioritise research and development into abatement options for biological emissions in New Zealand;
- Implement processes to ensure the national inventory can account for new mitigations options and technologies as they emerge;
- Model the possible GHG reductions at a national level which may occur as a result of the regional nutrient limits being rolled out under the National Policy Statement for Freshwater Management;
- Undertake case studies of farms in different catchments looking at the mitigations undertaken to meet their nutrient limits and the effect on nitrous oxide and methane emissions; and
- Identify and promote the adoption of good on farm management practices.

5.5 Ideally this framework would:

- Ensure the dairy industry is economically, environmentally and socially sustainable and continues to improve productivity and the efficient use of natural resources;
- Maintain New Zealand's competitive advantage;
- Avoid displacement of emissions to less efficient producers;
- Consider New Zealand's agricultural emissions in the context of global food production;
- Support the collective interests of the dairy industry; and
- Give consideration to the availability of economically viable mitigation options for agricultural emissions.

5.6 Taking an alternative policy approach to address biological emissions is consistent with what is happening in other countries. No other country has introduced climate policy for agriculture which seeks to price biological emissions. A lot of other countries, such as the EU, provide monetary incentives – on top of subsides – to dairy farmers to adjust their production practices to reduce emissions. Dairy processors in the EU have been deemed at risk and have received free allowances.

5.7 While DairyNZ is not proposing that these policies are adopted in New Zealand, we would welcome the opportunity to collaborate with Government and the broader agricultural industry to explore what could be feasible to address biological emissions over the longer term in New Zealand.

6. NEW ZEALAND'S EMISSIONS TRADING SCHEME

6.1 The Emissions Trading Scheme is an important component of New Zealand's domestic and international climate change policy framework. DairyNZ supports the scheme's objective to support and encourage global efforts to reduce greenhouse emissions by:

- Assisting New Zealand meet its international obligations
- Reducing New Zealand's net emissions below business as usual

6.2 We recognise in order to achieve this all sectors, including the dairy industry, need to contribute to the transition to a low emissions economy. While biological emissions will continue to be excluded from the ETS, dairy farmers contribute to scheme via their energy and transport use and therefore could be impacted by amendments which come out of the 2015 ETS review. In addition to this dairy farms could face an increased cost if dairy processors' financial liabilities under the scheme were to dramatically increase via a reduced farm gate milk price.

6.3 DairyNZ believes it is premature to phase out the transitional measures (question 3) on the basis that:

- None of New Zealand's dairy industry's key competitors (Europe, United States and South America) are considering imposing a full market carbon price and full surrender obligations on their dairy industries;
- The number of New Zealand units surrendered each year is less than the amount required to meet obligations under the scheme;
- The New Zealand ETS currently prevents participants from accessing international markets;
- The ETS and the Permanent Forest Sink Initiative does little to incentivise afforestation;
- The detail which will underpin the post 2020 climate change agreement has yet to be developed and agreed upon, and this is likely to have implications for New Zealand's;
- There is a significant amount of political uncertainty regarding the policy settings of the ETS, and it is hard to access information on the aspects which influence the price of NZUs and it is hard to predict what the price will be.

6.4 DairyNZ believes further certainty is required on the following aspects before any substantial changes are made to the ETS:

- The Post 2020 multilateral climate change agreement and the establishment of a new market mechanism for the 2020-2030 timeframe;
- Access to an international market and understanding what that will mean for New Zealand's ETS; and
- The establishment of a cross-party/ government agency climate change policy framework in collaboration with industry which incorporates an alternative framework for biological emission and the ETS.

7. ABOUT DAIRYNZ

7.1 DairyNZ is the industry good organisation representing New Zealand's dairy farmers. Funded by a levy on milksolids and through Government investment, our purpose is to secure and enhance the profitability, sustainability and competitiveness of New Zealand dairy farming.

7.2 We deliver value to farmers through leadership, influencing, investing, partnering with other organisations and through our own strategic capability. Our work includes research and development to create practical on-farm

tools, leading on-farm adoption of best practice farming, promoting careers in dairying and advocating for farmers with central and regional government. For more information visit www.dairynz.co.nz.