

Submission

Reforming the New Zealand Emissions Trading Scheme: Proposed settings

Introduction

Fonterra is a co-operative owned by around 10,000 New Zealand farmers and their families. We set out every day to ensure our farmers, the economy and every New Zealander gains the greatest benefit from our dairy industry.

The unique attributes of New Zealand's environment must be protected and enhanced for generations to come. As a farmer-owned co-operative, we are deeply invested in New Zealand's success and take a long-term view for our industry and the country. We believe a healthy environment is the foundation for both a strong economy and a sustainable dairy industry.

Fonterra is New Zealand's largest exporter, with 30 manufacturing sites spread across New Zealand. About 40% of our sites' current processing energy is from coal, and seven of our sites are located in areas of the South Island where there is currently no gas supply or feasible energy alternatives.

In July last year we announced we were putting a stop to installing any new coal boilers or increasing our capacity to burn coal. To change our energy profile, we are actively trialling alternative energy sources and converting our existing boilers to utilise wood biomass where possible.

Our goal is to achieve net-zero emissions by 2050 and, as a stepping stone, we will achieve a 30 per cent absolute reduction of our FY15 emission levels by 2030.

On farm, New Zealand's dairy farmers are amongst the most carbon-efficient dairy producers in the world. The emissions intensity of our New Zealand dairy production is approximately one third of the global average. This efficiency has come through significant research and investment, and the willingness of our farmers to adapt.

As our farmers continue to innovate, our Co-operative will support them to adapt and protect New Zealand's unique environment.

Our team of Sustainable Dairy Advisors provide industry-leading advice and work hand-in-hand with farmers to develop a tailored Farm Environment Plans (FEPs) – action plans to improve their environmental footprints on farm. Every Fonterra farmer will have a tailored FEP by 2025, and all Fonterra farmers will have an emissions report detailing their biological greenhouse gas emissions for the 2019/2020 season.

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. We are pleased that Government and industry worked together to create the Primary Sector Commitment *He Waka Eke Noa: Our Future in Our Hands*. This type of collaboration is fundamental to ensuring that the required changes are clear, and we are working to ensure that the Commitment delivers the intended results and aligns with the Dairy Tomorrow strategy.

We know our industry must continue evolving to remain economically and environmentally sustainable, and we support action being taken to reduce both industrial and agricultural emissions. We will continue to lower our emissions footprint, and will support our farmers to do the same as they continue to adapt for our future.

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

Summary

Fonterra welcomes the opportunity to submit on the proposed changes to the New Zealand Emissions Trading Scheme (ETS). In order for the scheme to be effective, it is essential that the ETS settings accurately reflect New Zealand's emissions reductions targets.

New Zealand must play its part in meeting its obligations and commitments in the global effort to limit average temperature increases to 1.5 degrees Celsius above pre-industrial levels, whilst also maintaining safe and sustainable food production.

For Fonterra and our farmer owners, the challenge is significant. Our business represents approximately 20% of New Zealand's gross greenhouse gas emissions. About 90% of these emissions come from farms, predominantly from the cows' biological emissions of methane and nitrous oxide; about 9% from the manufacturing process, primarily from the use of fossil fuel energy for process heat; and 1% from our supply chain, the vehicles and vessels which deliver our products to markets around the world.

Coupled with complementary measures and investments in future technologies, the reformed ETS has the potential to be one of New Zealand's most important regulatory tools to drive emissions reductions and meet our climate change commitments.

We support the intent of the changes being made, and ask that the following points are taken into consideration in confirming the adjusted settings:

- Provisional budgets for 2021-25 need to be re-assessed to take practical abatement opportunities into account.
- The Emissions-Intensive and Trade-Exposed (EITE) free allocation system must be meaningfully reformed to stop market stockpiling. In our experience, stockpiling in the market is caused by the EITE free allocation system and its associated electricity allocation factor (EAF).
- Organisations' use of voluntary offsetting to validate market claims should be encouraged as work continues to develop a robust scheme from 2021.
- Revenue generated from the auctioning system should be used to help businesses implement carbon-reduction projects. A funding mechanism, such as a contestable fund, would enable organisations seeking to reduce emissions to undertake projects and further accelerate the decarbonisation of the New Zealand economy.

Responses to questions

Question	Response
<p>1. Do you agree with the proposal to set a provisional emissions budget of 354 Mt CO₂-e for the 2021–25 period?</p>	<p>Fonterra considers that many of the assumptions underpinning the current provisional emissions budget for 2021-25 are too ambitious and need to be re-assessed to take practical abatement opportunities into account.</p> <p>The provisional budget must be aspirational in achieving New Zealand's emissions reduction targets, however it must also consider the necessary policies and measures that lower emissions within the broader regulatory environment.</p> <p>By Fonterra's assessment, the provisional emissions budget of 354 Mt CO₂-e for the 2021–25 period would require the process heat sector to deliver a major percentage of the emissions reductions in the relatively short five-year budget period.</p> <p>Under this proposed modelling, we are concerned that sufficient consideration has not been for the level of complexity involved in decarbonising process heat, the cost implications of doing so, and the significant constraints in securing feasible alternatives.</p> <p>For the process heat sector, the challenge ahead is significant. For example, seven of our Fonterra sites are located in areas of the South Island where there is currently no gas supply or feasible energy alternatives. In parts of the country where there are renewable alternatives,</p>

	<p>such as wood biomass or wood pellets, these are not available at the scale we require them.</p> <p>We do acknowledge the Government’s commitment to decarbonisation, including recent announcements for additional infrastructure support to decarbonise the public sector and national transport network. We consider these initiatives could go further to deliver cross-sector emissions reductions at scale. Some examples include:</p> <ul style="list-style-type: none"> • Accelerating the electrification of rail and further incentivising the use of rail over less-efficient freight alternatives will have a broad cross-sector impact nationwide. • Achieving 95% renewable energy generation in a normal hydro year to reduce the emissions footprint of all energy users in New Zealand. This would also feasibly result in price decreases and drive further industry electrification in the medium and long-term. • Complementary measures on farm, and a significant investment in research and development by industry and Government will be required to support the transition. For example, significant industry and Government partnerships are required for investment in mitigation innovation, skills development, and infrastructure. <p>The straight-line methodology</p> <p>Fonterra supports the utilisation of a straight-line methodology to set the provisional emissions budget. For New Zealand to meet its international obligations and achieve its 2050 emissions reduction goal, targets incorporating agricultural emissions must account for the non-linear nature of agriculture’s mitigation opportunities.</p> <p>For example, on-farm emissions reductions are unlikely to be linear, as reductions rely on the development and deployment of technologies which are not yet available to farmers.</p> <p>While technology is improving, significant step change in research, science and innovation are still required to afford farmers the ability to meet their emissions-reduction commitments. Future targets must take this in to account.</p>
<p>2. Do you support the decisions made regarding the technical volume adjustment decisions?</p>	<p>Fonterra supports the use of voluntary offsetting and believes it should be encouraged as an option to validate market claims.</p> <p>We support the proposed methodology of the technical adjustments, as they will likely become necessary for forecasting in the future. An accurate outlook throughout the provisional emissions budget period is vital for emitters’ own estimates as they seek to meet their target emissions reductions.</p> <p>Further consideration needs to be provided in the following areas:</p> <ul style="list-style-type: none"> • All forestry activity must be accounted for in the New Zealand ETS to minimise the chance for volume misalignments and erroneous forecasting at a national level. • As noted in the discussion document, there is growing interest in the voluntary emissions market for offsetting among New Zealand organisations. This should be encouraged as work continues to develop a robust scheme from 2021. The voluntary carbon market is a useful tool to validate market claims and should allow companies to sell carbon reduction offsets to other companies to fund emissions reduction projects.
<p>3. Are there other adjustments that need to be considered?</p>	<p>No further adjustments, beyond those which are noted above.</p>

<p>4. Do you agree with the proposal to address the NZ ETS unit stockpile by reducing the annual volume of NZUs available for auction?</p>	<p>Fonterra does not support the proposal and believes the issue of stockpiling needs to be addressed first, rather than reducing the annual volume of NZUs available for auction.</p> <p>Fonterra considers that the free allocation system should be phased out. Market settings should also be reviewed when the instrument for delivering farm-level pricing for agriculture is known, as part of the wider suite of tools and services to support on-farm emissions reductions.</p> <p>Existing proposal</p> <p>There is insufficient analysis at this stage on the impact of inventory levels in the market to address stockpiling in the proposed way.</p> <p>The market will require a sufficient level of liquidity to function effectively and balance the available units against the emissions budget target. Without this liquidity, there is a high likelihood the market will not function properly.</p> <p>A limited inventory of NZUs available in the market will also limit speculators' role in effective trading. Speculators play an important role in the efficient functioning of the market, a role they will not be able to carry out if there is only a limited inventory available.</p> <p>Alternative proposal</p> <p>In our experience, stockpiling in the market is caused by the Emissions-Intensive and Trade-Exposed (EITE) free allocation system and its associated electricity allocation factor (EAF). This system must be meaningfully reformed to stop market stockpiling.</p> <p>While NZUs are entering the ETS through the free allocation system, they are not being removed through unit surrenders, causing the stockpile of NZUs to increase.</p> <p>Fonterra does not receive any meaningful volume of EITE free allocations, currently 2 per cent of our total commitment (equating to around \$2m annually). To put this allocation in context, only Ethanol, Whey Powder, and Lactose products are deemed to be “moderately emission-intensive” therefore Fonterra receives a 60% allocation. The emissions associated with manufacturing these products account for less than 5% of our annual emissions.</p> <p>Furthermore, the over-allocation of units to EITE participants under the EAF needs to be addressed. The factor was originally designed to align with Australian electricity emissions, however the flow-on effect has been a windfall of units available for participants in the scheme. The EAF needs to be aligned with actual electricity emissions.</p> <p>As a complementary measure to the reformed ETS, revenue generated from the auctioning system should be used to help businesses implement carbon-reduction projects. Revenue recycling within the scheme via a contestable fund for organisations seeking to reduce emissions would further accelerate the decarbonisation of the New Zealand economy and help meet our international climate change commitments.</p>
<p>5. Do you agree with 27 million NZUs being removed from auction volume between 2021–25?</p>	<p>Fonterra considers the proposal to remove NZUs from the auctioning volume to be flawed.</p> <p>The expectation that surplus NZUs held by non-forestry participants within the ETS will become available to be traded by 2025 overlooks the diverse set of reasons organisations seek to retain units.</p> <p>It is not uncommon for businesses to stockpile NZUs while business cases for future capital spending are developed, as it can typically take 1-2 years for businesses to approve significant capital expenditure.</p> <p>For many organisations, capital planning requirements based on future expected carbon prices extend beyond 2025. The removal of NZUs from</p>

	the auction volume from 2021-25 will likely drive unnecessary scarcity in the market.
6. Do you agree with the steps and calculations taken to reach the proposed annual auction volumes?	<p>Fonterra considers it is necessary to re-evaluate the assumption within the calculations that there will be no reduction in free allocations in the next five years.</p> <p>As above, we would like to see stockpile reduction pushed out further to give time to evaluate the impact of reduced inventory on the market and price. Pending the likelihood of changes to free allocations for EITE participants, the proposed annual auction volumes will need to be adjusted.</p> <p>Fonterra supports the Government's role as the certifying entity on what international units are available to enter the New Zealand ETS. This provides further confidence in the market and ensures the integrity of the scheme.</p>
7. Do you support the proposal to auction 80 million NZUs over the 2021–25 period plus 2 million NZUs for auctioning trial in 2020?	<p>Fonterra supports the auction proposal for the 2021/25 period and the trial auction to take place in 2020. We recommend that the auction process is held a minimum on a quarterly basis.</p> <p>Regarding the proposed quantities of NZUs to be made available, Fonterra considers it necessary to increase the supply of units – taking in to account the points noted above.</p> <p>It is essential that market certainty is retained within the New Zealand ETS. Sufficient supply in the market, alongside a longer-term outlook for stockpile reductions, will give traders more time to evaluate the impact of a reduced inventory of NZUs on the market and projected prices.</p>
8. Do you agree with the proposal to set an auction reserve price floor at \$20 for 2020–25?	<p>Fonterra supports the proposal. Setting an auction reserve floor price will increase supply-side certainty in the ETS market and will encourage future investment in units.</p>
9. Do you agree with the proposal to increase the fixed price option to \$35 for obligations arising from activities over 2020?	<p>While Fonterra supports the proposal to increase the fixed-price option for obligations arising from activities past 2020, the level at which the option is set should be re-evaluated.</p> <p>Increasing the fixed-price option to \$35 for obligations arising from activities past 2020 would be premature and disrupt normal trading within the scheme.</p> <p>In the medium-term, Fonterra considers it appropriate to hold the fixed-price option at a lower rate, for example \$30. A lower rate will allow traders more time and flexibility to adjust their existing budgets and avoid shocks to the existing market.</p>
10. Do you agree with the proposal to set the price ceiling trigger of the cost containment reserve at \$50 for the 2020–25 period?	<p>Under the proposed auction system, the Cost Containment Reserve (CCR) will play a critical role in ensuring market stabilisation. Key to achieving a well-informed market are the processes and information surround the CCR. Fonterra considers that the proposed CCR settings do not provide the intended long-term clarity to ETS participants.</p> <p>The existing proposal affords only minimal certainty to participants beyond a three-year outlook, which is insufficient to achieve the trigger's intended effect on market confidence. Extending the period in which the price point for the CCR is set would increase market certainty.</p> <p>Further certainty would likewise be achieved via the release of regular data modelling projecting the proposed availability of NZUs into an expected carbon price on a 10-year forecast.</p> <p>The availability of this data would increase the transparency of Government decisions and provide further information to participants on the likelihood of the CCR being triggered on a medium- to long-term basis.</p>

	<p>Additional consideration should be given to amending the CCR to allow emitters to auction un-realised future emissions reduction projects. These units and their associated projects should be drawn upon prior to any consideration of accessing international units.</p> <p>Such a system would afford emitters increased funding opportunities for emission reduction projects. For example, Fonterra’s recent \$11 million investment in a wood pellet conversion at our Te Awamutu Site that will achieve an emissions reduction of 84,000 tCO₂e – the equivalent of taking more than 32,000 cars off the road.</p>
<p>11. Do you agree with the proposed annual cost containment reserve volumes to be released if the price ceiling trigger is hit?</p>	<p>Fonterra supports the proposed annual Cost Containment Reserve (CCR) volumes. Fonterra also considers it necessary to restrict access to auctions and CCR volumes to those ETS participants with a surrender obligation.</p> <p>However, as noted in the discussion document, the market response to the release of the CCR is an area that requires careful analysis. Further consideration needs to be provided in the following areas:</p> <ul style="list-style-type: none"> • It is essential that regular modelling projecting the proposed availability of NZUs is made available and the flow-on effects of the CCR being triggered are also modelled and understood. In the event of the emissions abatements not being achieved, it will be necessary to re-evaluate the proposed reserve and trigger the release of more NZUs in to the scheme. • In obtaining domestic emissions reductions to match the NZUs released if the trigger price is met, further activities beyond afforestation should be considered. For example, emissions reductions via emitters’ investments in sources such as process heat would be a viable method for acquiring units to back the CCR – and would further encourage investments in abatement technologies. Clarity on accessing this system is also required should CCR volumes be met in the future.
<p>12. Do you agree with the proposed approach for release of NZ ETS settings information?</p>	<p>Fonterra supports the proposed approach for the release of information to provide participants with long-term clarity on the future of the scheme.</p> <p>As part of these regular information releases, long-term modelling needs to be included that shows the future availability of NZUs and the expected flow on effect into carbon pricing with a 10-year forecast.</p>

**Our Co-operative, empowering people, to create goodness for generations,
You, me, us, together
Tātou, Tātou**

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 team of Sustainable Dairy Advisors provide industry-leading advice and work hand-in-hand with farmers to develop a tailored Farm Environment Plan (FEP) which provides the farmer with an action plan to improve the environmental footprint of their farm. All Fonterra farmers will be provided with a farm-specific report of their biological greenhouse gas emissions for the 2019/2020 milk season; and all Fonterra farmers will have a tailored FEP by 2025.

Our Co-operative invests in cutting-edge technologies to reduce agricultural emissions, particularly those that have the potential to break the links between dry-matter consumption and methane output, such as through BERG and the Pastoral Greenhouse Gas Research Consortium (PGgRC).

We've worked with DairyNZ to deliver the Dairy Action for Climate Change, which has:

- Increased awareness of steps that farmers can take to mitigate against some of the impacts of climate change including 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;

We are working with DairyNZ and other primary industry organisations to support the development and implementation of He Waka Eke Noa in partnership with the Ministry of Primary Industries (MPI) and the Ministry for the Environment (MfE).

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

Fonterra operates 30 manufacturing sites across New Zealand. Ten of our sites rely on coal as the primary source of energy, and seven of these are located in the South Island where there is currently no gas supply or feasible energy alternatives.

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% absolute reduction in emissions by 2030 based on FY15 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 and reliably process our farmers' milk while meeting these targets. We also have a range of existing assets, many of which still have considerable economic life span left in them.

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

- In January 2020, we announced our Te Awamutu site will move off coal in favour of wood pellets starting in the 2020/21 dairy season, saving around 84,000 tonnes of carbon emissions every year. The move is the equivalent of taking around 32,000 cars off the road, and will reduce our national coal consumption by approximately 10 per cent.
- In 2018, our Brightwater site near Nelson switched to co-firing wood biomass, helping reduce CO2 emissions by 25%, or about the same as taking 530 cars off the road.
- We are progressing our 'electric milk' program, by looking to electrify parts of our processing at our Stirling site in Otago.

We have 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 biodiesel which reduces the emissions of each of these tankers by ~4% per annum. **ENDS**