

Regulatory Impact Statement: Amending the Climate Change Response Act to repeal New Zealand Emission Trading Scheme agricultural obligations

Coversheet

Purpose of Document	
Decision sought:	<i>This paper provides analysis for the purpose of informing Cabinet decisions to draft primary legislation to repeal the agricultural obligations in the New Zealand Emissions Trading Scheme (NZ ETS) under the Climate Change Response Act 2002 (CCRA).</i>
Advising agencies:	<i>Ministry for Primary Industries Ministry for the Environment</i>
Proposing Ministers:	<i>Hon Todd McClay, Minister of Agriculture Hon Simon Watts, Minister of Climate Change</i>
Date finalised:	<i>20/03/2024</i>
Problem Definition	
<p>Aotearoa New Zealand needs to reduce its agricultural greenhouse gas emissions in order to meet our legislated targets, emissions budgets, and Nationally Determined Contribution.</p> <p>As part of the wider package to respond to climate change, the Government has committed to implementing a fair and sustainable pricing system for on farm agricultural emissions by 2030 that reduces emissions without resulting in emissions leakage or sending production overseas. It has also committed to keeping agriculture out of the New Zealand Emissions Trading Scheme (NZ ETS). Legislative change is required to give effect to this, due to existing provisions with the Climate Change Response Act 2002 (CCRA).</p> <p>The CCRA provides a framework for developing and implementing climate change policies to achieve net emissions reductions. This framework includes the legislation for the NZ ETS – and provisions to bring agriculture into the NZ ETS as a backstop to incentivise the development of an alternative system, such that the CCRA as currently legislated requires that on:</p> <ol style="list-style-type: none"> a) 1 January 2025 – processor level surrender obligations¹ in the NZ ETS will commence for animal and fertiliser processors; and b) 1 January 2026 – animal farmer reporting obligations will commence; and 	

¹ Agricultural processors have been reporting the biological emissions associated with the livestock or fertiliser they process since 2011. From 1 January 2025 they are required to pay for these emissions by acquiring units through the NZ ETS, and surrender them to the Government in payment for those emissions.

c) 1 January 2027 - animal farmer surrender obligations commence.

However, there are significant challenges, and potential downsides, to implementing these obligations. These include:

- Having processors paying for on farm emissions by surrendering units in the NZ ETS is unlikely to incentivise farmers to directly reduce their on-farm emissions.
- All processors would face the same cost per kilo of product processed, as any differences between the emissions intensity of the farms supplying them would not be reflected. Processors would likely pass (all or most of) these costs on to farmers via reduced prices for milk and meat. Because costs are based on national averages, the costs passed on to farmers would be the same regardless of how emissions-efficient or otherwise they are.
- Due to the size of agricultural sector emissions, adding these into the NZ ETS could also disrupt allocation for emissions-intensive trade-exposed industries and weaken the price signal. Also applying a single price to all gases contradicts the intended split-gas pricing approach reflecting New Zealand's approach to split gas targets.

It is also relevant to note that implementing the farm level obligations in the NZ ETS could bring around 100,000 farmers into the NZ ETS as participants. These issues risk major administrative, compliance and data management challenges. It will also be costly for farmer to comply with the system. In particular it could disproportionately impact smaller farms which face similar compliance costs to larger farms. Small-scale farmers may struggle to comply depending on their resources/profit margin.

Given these issues, in combination with the inconsistency of retaining agriculture in the NZ ETS with Government policy direction, legislative changes are required to prevent the NZ ETS agricultural obligations from taking effect.

Executive Summary

New Zealand's agricultural sector accounts for around half of the country's total greenhouse gas emissions. The CCRA currently requires agricultural processors, who are currently reporting the emissions associated with the products in the New Zealand Emissions Trading Scheme (NZ ETS), to assume surrender obligations for those emissions starting in 2025. It also requires animal farmers to begin reporting emissions in 2026, with surrender obligations in 2027. This was required as a backstop, in the event that an alternative pricing system for agriculture was not agreed to.

The National Party manifesto makes clear the intention to keep agriculture out of the NZ ETS and to implement an alternative, farm-level pricing system no later than 2030. To fulfil this commitment, amendments to the CCRA are required to remove the upcoming agriculture sector obligations. To support decisions on the amendment of the CCRA, a number of options were assessed and considered.

Options had to meet a minimum threshold of being able to be legislated by the end of 2024 to avoid the existing NZ ETS obligations taking effect. Options that met this threshold were assessed against three criteria: how effective the option would be in reducing emissions; how adaptive and resource intensive the option would be for transitioning to future pricing; and how equitable the option was within the agriculture sector and with other sectors of the broader economy.

The status quo of agriculture entering the NZ ETS was assessed against three alternative options as set out below, namely:

0. **Option Zero: Status quo** – This option keeps the agriculture NZ ETS backstop obligations as written in legislation.²
1. **Option One: Complete removal** – Full repeal and complete removal of agricultural obligations from the NZ ETS;
2. **Option Two: On-going reporting requirements** – Amends the CCRA to deactivate all surrender obligations (i.e., farmer and processor obligations) and animal farmer reporting indefinitely but keep processor level reporting obligations; and
3. **Option Three: Deferred processor-level pricing** – Amends the CCRA to delay processor level surrender obligations to a specified point in the future, subject to introduction of an alternative pricing system, but removes farm-level reporting and surrender obligations.

Overview of analysis

The analysis shows that while the status quo would deliver emissions reductions and would provide emissions pricing equity with other sectors, it is not practically feasible to implement within the legislated timeframes. It also gives rise to some equity issues within the sub-sectors of the agriculture industry. Cabinet agreed, in September 2023, to implement an alternative pricing system for the agricultural sector outside the NZ ETS³. It was to be implemented in a phased approach comprising of farm level reporting and pricing outside of the NZ ETS [CAB-23-MIN-0439 refers]. This Cabinet decision followed on from the decision from the previous government to work with the agricultural sector as part of He Waka Eke Noa, to develop an alternative pricing scheme to agriculture entering the NZ ETS. Given this commitment to an alternative farm-level pricing system outside the NZ ETS, no preparations were made for agricultural emission pricing through the NZ ETS backstop.

Option One, removing agriculture from the NZ ETS, means that all agricultural emissions reporting and surrender obligations for processor and farmers will be completely repealed. This option clears the way for new agricultural pricing legislation to be introduced and resourced in the short term, rather than duplication of effort on two potential systems if it is to be replaced by a future system. In the short term, it also allows for resources to be directed towards a future pricing system. However, compared to the status quo, this option carries higher risk of not meeting emissions reductions targets and commitments if no alternative pricing system is established in the near future.

Options 2 and 3 were put forward to the Minister of Agriculture and the Minister of Climate Change (the Ministers) to maintain some level of legislated obligation for reporting or pricing on the agriculture sector in the absence of an alternative pricing system. These options do, however, retain agriculture in the NZ ETS in some way.

Option 2 (on-going reporting requirements) is not in itself likely to lead to necessary emission reductions, but does maintain an option for future processor surrender obligations at some point in the future.

Option 3 (future obligation for processor-level NZ ETS pricing) will leave in place the strongest legislated signal of the intention for agriculture to face a price on emissions. However, this is a

² The legislation was intended to be amended to remove this backstop option as part of the programme enabling the levy-based, farm-level scheme outside the ETS that had previously been agreed [CAB-23-MIN-0439 refers].

³ This pricing system was based on the Section 215 report. See here: <https://environment.govt.nz/publications/pricing-agricultural-emissions-report-under-section-215-of-the-climate-change-response-act-2002/>

more complicated option ahead of a future farm level pricing system as it risks the development of two pricing systems.

Other options for keeping agriculture out of the NZ ETS were considered but discarded due to the impracticality of implementation by end of this year. For example, officials also gave consideration as to whether the CCRA amendment required to manage backstop obligations could be used as a vehicle to progress alternative legislatively backed action to support the reduction of agricultural emissions. Examples of such other options considered include deferred farm level pricing or to implement an interim levy-based system of some kind outside the NZ ETS.

Implementation

Option 1 is preferred by Ministers.

Overall, amendments to the CCRA are urgently needed to repeal agriculture's NZ ETS obligations per the Government's commitments and Ministers' direction to keep agriculture out of the NZ ETS. Implementing this option will require legislation change by 31 December 2024, and the Environmental Protection Authority (EPA) to update their operational systems to enable processors to stop reporting their emissions.

Cost benefit analysis summary

In summary, the cost/benefit analysis showed that pricing emissions at a processor level in the NZ ETS has a small positive benefit (Benefit Cost Ratio of 1.24, Net Present Value of \$0.97 billion over the next 20 years). However, the applicability of this analysis is limited, as under the CCRA, processor level pricing would be superseded by farm level surrender obligations in 2027. Amending the CCRA to remove agricultural processor level pricing will mean that the potential economic net benefit suggested by this modelling would be reversed, resulting in a net loss to New Zealand society.

Limitations and Constraints on Analysis

The National Party's Election Manifesto and the Government's coalition agreements commit to "Keep agriculture out of the Emissions Trading Scheme and implement a fair and sustainable pricing system for on-farm agricultural emissions by 2030 that reduces emissions without sending production overseas."

Factors that have constrained our analysis include that lack of recent modelling of potential options. Further, processor level impacts are caveated by the assumption that farm level pricing would be operationalised at some point (per the obligations in the CCRA). Nevertheless, previous modelling still provides some limited insight as to the scale of impacts expected.

The modelling from 2022 has a number of limitations including the accuracy and currency of some of the input data and the technical assumptions inherent to the modelling framework used⁴. While all modelling has some error, uncertainty and limitations, the modelling from 2022 does limit the confidence with which the conclusions can be stated.

Primary legislative amendments to the CCRA are required by December 2024 to remove the obligations for agriculture. This means that to meet these deadlines, the Cabinet paper seeking


⁴ The framework is a comparative static optimisation framework that assumes rational profit maximising behaviour and does not analyse the trajectory from the current state to the policy scenario.

amendments needs to be considered by Cabinet as soon as possible.in April 2024, and be introduced to the House in May 2024.

Timescales for this work to progress means that there is little time for extensive consultation. However, the issues have been canvassed widely in previous work, including consultation for the s215 report in October 2022, in the consultation on the Order In Council for deferring animal farmer obligations in September 2023, and as part of the implementation of the standardised emissions methodology and calculation.


Responsible Manager(s) (completed by relevant manager)

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19/03/2024

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Quality Assurance (completed by QA panel)

Reviewing Agency: The Treasury and Ministry for the Environment

Panel Assessment & Comment:

A quality assurance panel with members from the Treasury and the Ministry for the Environment has reviewed the Regulatory Impact Statement (RIS), “Repeal of Processor-level Surrender Obligations Provisions for the Primary Sector in the Climate Change Response Act” produced by the Ministry for the Environment and Ministry for Primary Industries dated 13 March 2024. The panel considers that it partially meets the quality assurance criteria.

The RIS clearly states the problem with current surrender obligations at the processor-level and farm-level under the CCRA. The analysis shows that while the status quo could deliver emissions reductions and provide emissions pricing equity with other sectors, it is not practically feasible to implement due to administrative and compliance issues.

The case for legislative change to prevent current NZ ETS obligations at the processor-level from taking effect has been based on the fundamental assumption that an alternative, farm-level pricing system would be introduced no later than 2030. This has influenced the framing of the analysis and conclusions in the RIS.

As an alternative pricing system has yet to be developed outside the ETS, there is limited evidence about the effectiveness of the Ministers’ preferred option. The analysis has also been constrained by lack of recent modelling of potential options. Cost benefit analysis undertaken for the status quo, indicates that pricing emissions at a processor level in the ETS has a small positive benefit. It has been assumed that amending the CCRA to remove agricultural processor-level pricing would mean that the potential economic net benefit suggested by this modelling would be reversed, resulting in a net loss to New Zealand

society. However, the applicability of this analysis is limited because under the CCRA, processor-level pricing used in the analysis would be superseded by farm-level surrender obligations in 2027 and this not included in the modelling.

The RIS acknowledges that there are significant uncertainties and risks associated with the preferred option. The option to defer processor-level pricing, effectively extends out the current ETS backstop for processor only obligations and could potentially help to mitigate some of these risks if the alternative agricultural pricing mechanism is delayed or not progressed.

Partial consultation has been undertaken previously, but the full range of options in the RIS has not had the benefit of broad public consultation and there will be limited opportunity for consultation during the Select Committee process.

It will be important to continue monitoring the impact on emission reduction targets.

Section 1: Diagnosing the policy problem.

What is the context behind the policy problem and how is the status quo expected to develop?

1. New Zealand's agricultural sector contributes about 50% of total greenhouse gas emissions and 90% of annual biogenic methane production, making it important to address these emissions as part of New Zealand's efforts to mitigate climate change.
2. Aotearoa New Zealand needs to reduce its agricultural greenhouse gas emissions in order to meet our legislated targets, emissions budgets, and Nationally Determined Contribution, in particular:
 - a) The emissions reduction targets legislated in the CCRA - a 10% reduction in biogenic methane by 2030, a 24-47% reduction in biogenic methane by 2050 and a net zero target for long-lived gases by 2050;
 - b) The first three emissions budgets (2022–2025, 290 Mt CO₂-e; 2026–2030, 305 Mt CO₂-e; 2031–2035, 240 Mt CO₂-e) published in May 2022 and the policies and strategies set out for meeting them; and
 - c) Our international obligation under the Paris Agreement stated in our Nationally Determined Contributions (NDC) - a headline target of a 50 per cent reduction of net emissions below our gross 2005 level by 2030.
3. Further, there are potential trade and legal risks of not reducing agricultural emissions. International marketplace expectations and trade agreements are increasingly setting targets and requirements to improve climate performance to reduce their emissions in line with the 1.5-degree goal of the Paris Agreement. Further, there is increasing legal risk of climate change inaction to governments and companies.
4. Several agricultural and food companies have set emissions reduction targets that include on-farm emissions within their supply chain⁵. These targets are predominantly science-based targets, meaning they are emission reduction targets in line with limiting warming to 1.5 degrees or well under 2 degrees. Also relevant is that Fonterra has noted that it expects 30 per cent of its gross margin will come from sustainably focused customers by 2030 and has set an emissions intensity reduction target.⁶
5. The CCRA provides a framework for developing and implementing climate change policies to enable New Zealand to meet its domestic emissions budgets, targets, and international obligations under the Paris Agreement, and our NDCs. To help achieve this, the CCRA requires reporting and surrendering of units for emissions from various sectors and activities across the New Zealand economy through the New Zealand Emissions Trading Scheme (NZ ETS).
6. The NZ ETS) is the Government's main tool for reducing greenhouse gas emissions. All sectors covered by the NZ ETS must report their annual greenhouse gas emissions to the Government. Surrender obligations mean that NZ ETS participants are required to pay the Government for their emissions. Currently, all sectors apart from the biological

⁵ <https://sciencebasedtargets.org/target-dashboard>

⁶ Fonterra, 2023. <https://www.fonterra.com/nz/en/our-stories/media/fonterra-announces-climate-plans-for-the-future.html>


emissions from agriculture have surrender obligations (i.e., a requirement to pay for their emissions through the NZ ETS).

CCRA and Agricultural Activities

7. In 2008, agricultural activities were included in the CCRA, with obligations for fertiliser and animal processors to monitor and report their agricultural emissions in the NZ ETS from 1 January 2011. In 2020, the CCRA was amended to require fertiliser and animal processors to pay for these emissions through the NZ ETS from 1 January 2025, when processor level surrender obligations commence.
8. Farm level obligations are also included in the CCRA, with registration and reporting obligations under the NZ ETS on 1 January 2026, followed by surrender obligations a year later. These farm level obligations would supersede processor level obligations.
9. These provisions (i.e. the processor level reporting and surrender obligations, and the animal farmer reporting and surrender obligations) are frequently referred to as the 'NZ ETS backstop'.
10. Pricing agricultural emissions through the NZ ETS was set up to ensure progress towards reducing agricultural emissions and to create a clear timeline for when agricultural emissions would be priced. It provided a clear signal of intention and helped act as an incentive to drive uptake of emissions reducing practices and technologies. It also has the effect of the incentivising sector development of an alternative system to the NZ ETS (as if an alternative pricing system was not in place, agriculture would enter the NZ ETS).
11. In September 2023 Cabinet agreed to implement a farm level split gas reporting and pricing scheme in Q4 2024 and Q4 2025 respectively [CAB-23-MIN-0439 refers]. Given this commitment to an alternative farm-level pricing system outside the NZ ETS, no preparations have been made for agricultural emission pricing through the NZ ETS backstop.
12. In October 2023, the NZ ETS obligations for animal farmers were deferred in part because decisions had been made for mandatory reporting and pricing [CAB-23-MIN-0439 refers]. In part, this decision was due to it being burdensome for farmers to have to engage with two systems (as farm level pricing was assumed to be live at some point in the near future), and the lack of EPA capacity for additional participant management.
13. The obligations were deferred from 1 January 2024 to 1 January 2026 via an Order in Council [CAB-23-MIN-0457 refers]. This means that from 1 January 2026, the CCRA (as affected by the Climate Change (Animals–Farmer Activities) Order in Council 2023) requires animal farmers to report their emissions, with surrender obligations commencing on 1 January 2027; at this point surrender obligations for animal processors would cease.

Coalition Government's plan for dealing with agricultural emissions.

14. The National Party's Election Manifesto and the Government's coalition agreements commit to "Keep agriculture out of the Emissions Trading Scheme and implement a fair and sustainable pricing system for on-farm agricultural emissions by 2030 that reduces emissions without sending production overseas."
15. The National Government has also emphasised that reducing agricultural emissions will require providing farmers with access to the right technologies and tools which allows a price response, not farm closures or wholesale conversions to forestry.

16. The Government also signalled intention to equip farmers with the tools and technologies to reduce their on-farm emissions including streamlining the approval process for such technologies and implementing farm-level emissions measurement by 2025, and to “reduce the regulatory burden on farmers”.
17. To support reducing agricultural emissions work, the Minister of Climate and the Minister of Agriculture (the Ministers) have initially agreed to a proposed high level work plan, as below:
 - a. Amending the CCRA to take agriculture out of the ETS in 2024;
 - b. Initiating a review of the methane science and targets in 2024;
 - c. Establishing the agriculture emissions pricing board;
 - d. Publishing the standardised farm-level methodology;
 - e. Commencing measurement of on-farm emissions in 2025, based on the published methodology;
 - f. 9(2)(f)(iv) 
 - g. Introducing a fair and sustainable pricing of on-farm emissions no later than 2030.

What we have heard from past related consultations

18. In November 2022, the Government consulted on the design for an alternative agricultural emissions pricing system. As part of this consultation submissions were invited on an interim processor -level levy system, with a similar architecture to the processor-level backstop in the NZ ETS.
19. Sector submitters opposed an interim processor-level levy for pricing agricultural emissions. They argued that such an approach would distract from the intended long-term, farm-level pricing system and alienate the farming community. They stated processor-level pricing, without complementary farm incentives, would be largely ineffective at driving actual emissions reductions, hampering progress towards reduction targets. Instead, the sector proposed starting with a simplified farm-level levy for emissions pricing, and gradually improving to a full farm system. They further argued that an interim processor levy would create uncertainty for farmers and act as a “blunt tax on production” and be inequitable by placing the cost burden disproportionately on farmers who slaughter stock.
20. Māori submitters also did not support an interim processor levy citing the compliance cost and complexity that would lead to inefficient outcomes with the approach providing no real incentive for farmers to reduce emissions. Some Māori submitters feared the interim processor levy could become entrenched rather than it being truly interim.
21. Across all submitter groups, a common perspective emerged that greater long-term policy certainty is vital for spurring investment into emissions-reducing technologies and innovations for agriculture. While some saw an interim processor levy as prudent progress compared to delaying any pricing, many argued the government should instead focus on developing the farm-level system and extend implementation timeframes if needed to get the right pricing system. Ministers made public a report under section 215

of the CCRA⁷, outlining details of a farm-level pricing system as an alternative to pricing agricultural emissions in the NZ ETS following this consultation.

22. In August 2023, the government consulted on deferring NZ ETS reporting obligations for animal farmers from 1 January 2024 to 1 January 2026 and surrender obligations from 1 January 2025 to 1 January 2027. Through this consultation, most sector submitters continued to support an agricultural emissions pricing system outside of the NZ ETS as they considered it would provide greater opportunities to develop a more effective solution.
23. Māori submitters considered that there would be increased administrative costs as a result of animal farmers' obligations under the NZ ETS.
24. Of the submissions received which opposed the deferral of animal farmer obligation in the NZ ETS, the majority expressed frustration over the delays to pricing agricultural emissions. They raised concerns that any delays would have a detrimental effect on the path towards mitigating agricultural emissions.

What is the policy problem or opportunity?

25. The CCRA currently has surrender obligations for agriculture at the processor level beginning from 2025, with farm level reporting beginning in 2026. Implementing this legislation within the timeframes has significant challenges and will impact approximately 100,000 participants. In September 2023 Cabinet agreed to implement a farm level split gas reporting and pricing scheme in Q4 2024 and Q4 2025 respectively [CAB-23-MIN-0439 refers]. Given this commitment to an alternative farm-level pricing system outside the NZ ETS, no preparations have been made for agricultural emission pricing through the NZ ETS backstop.
26. Furthermore, the legislated NZ ETS backstop does not align with the Government's commitment to keep agriculture out of the NZ ETS. New legislation is required to prevent these obligations coming into effect as currently stipulated.
27. Implementing the CCRA obligations for agriculture will have significant barriers. From a participant viewpoint, there has been a lack of engagement with participants in preparing for this backstop option to come into force. From the perspective of implementors, the current system is not prepared for 100,000 new participants⁸.
28. Other barriers include that there is no system in place, no legislation or regulations on what is required, no guidance on what to do, no consultation, no education, the service sector unprepared, and there is no alignment with other systems. There are also reviews of components of the system, including updates to the relevant emission factors (see detailed discussion below, e.g., in the analysis of options)

Animal and fertiliser processor obligations

29. Currently, fertiliser and animal processors are obliged to report the emissions associated with the production of the livestock and fertiliser that they process or import annually. When the processor level backstop surrender obligations commence in

⁷ <https://environment.govt.nz/publications/pricing-agricultural-emissions-report-under-section-215-of-the-climate-change-response-act-2002/>

⁸ Estimated number of NZ ETS participants based on approximately 50,000 GST-registered farmers and an additional 56,000 participants (mainly lifestyle block owners) that are not GST registered but have livestock that could meet the NZ ETS animals–farmer activity definition.

January of 2025, processors will be required to surrender New Zealand Emissions Units (NZUs) for these emissions.

30. It is likely that processors will pass on to farmers the costs of on farm emissions arising from processor level surrender obligations. However, with the point of obligation resting with processors rather than the farmers responsible for the production of livestock and the use of fertiliser, farmers may have little incentive to implement mitigation activities and adopt technologies that reduce emissions on their farms. Therefore, farmers may "free ride" on the emissions reductions made by others in the supply chain rather than taking action to reduce their on-farm emissions.
31. Free riding and the lack of incentive will lead to an inefficient outcome where total emissions are higher than they would be if farmers had direct responsibility for reporting and, eventually, payment of their own emissions liability. This was one of the main reasons why industry stakeholders were supportive of an alternative farm level reporting and pricing system outside of the NZ ETS.

Animal farmer obligations

32. The second backstop provision in the NZ ETS, the animal farmer reporting obligation, commences in January 2026, and surrender obligations a year later, unless the provision is repealed or deferred by an order in council (noting that this will replace the processor level surrender obligations so the agricultural sector will not pay twice for the same emission). Officials estimate that over 100,000 animal farmer participants would be required to report and then surrender NZUs under the current CCRA legislation^{9,10}. This large number of participants could create significant administrative, compliance and data management challenges, as well as high transaction and administration costs for farmer participants. It will also shift the fundamental design of the NZ ETS (which currently has roughly 4300 participants, of which over 3900 are for forestry¹¹) from a system that is optimised for a few large participants to one with a large number of small participants. This may have implications for its operation, and effectiveness and has potential funding implications for the crown.
33. There is also concern that the addition of agriculture in the NZ ETS would disrupt the allocation provided for the high emissions trade exposed sectors. By potentially risking overallocation of NZUs if agricultural emissions were to be brought into the scheme with high levels of free allocation¹². There is a risk that, with high starting rates of free allocation for participants (farmers or processors), the price signal within the ETS will

⁹ Estimated number of NZ ETS participants based on approximately 50,000 GST-registered farmers and an additional 56,000 participants (mainly lifestyle block owners) that are not GST registered but have livestock that could meet the NZ ETS animals–farmer activity definition.

¹⁰ Under previous proposals, participants were only involved if their stock numbers or fertiliser use exceeded certain thresholds. This reduced the number of participants to 1–23,000 and eliminated many of the small-scale farmer business while capturing 96% of the emissions.

¹¹ There are significant transaction costs when dealing with small forestry operators.

<https://www.epa.govt.nz/assets/Uploads/Documents/Emissions-Trading-Scheme/Reports/Participants/ETS-Participants-Report-v2.xlsx>

¹² [Progress-towards-agricultural-emissions-pricing-CCC-report.pdf \(climatecommission.govt.nz\)](#)

be weakened¹³. Further, it would be inefficient as there is the intent to take agriculture out of the NZ ETS.

34. The NZ ETS system design is not consistent with the split-gas approach committed to by the government. A split-gas approach treats biogenic methane differently to long-lived gases, due to the short-lived nature of biogenic methane emissions (which constitutes the bulk of agricultural emissions). Currently, the NZ ETS applies a single price per tonne of carbon dioxide equivalent of all greenhouse gases covered by the system. As such this could be perceived as inconsistent with the Government's commitment to a split-gas approach to agricultural emissions pricing.
35. In summary the inclusion of agriculture in the NZ ETS would significantly increase the number of participants, creating administrative, compliance, and data management challenges for the EPA. It could further disrupt the allocation system and potentially weaken the price signal. Also, given the Government's commitment to take agriculture out of the NZ ETS, implementing the current obligations could also be inefficient and send conflicting signals.

¹³ For example, by potentially risking overallocation of NZUs if agricultural emissions were to be brought into the scheme with high levels of free allocation. There is a risk that, with high starting rates of free allocation for participants (farmers or processors), the price signal within the ETS will be weakened. With this in mind, it is more likely that agriculture would be required to surrender only those units above a threshold, i.e., not be given a large free allocation.

Section 2: Deciding upon an option to address the policy problem

Minimal threshold for options to be considered.

36. Given the first backstop obligation is legislated to come into effect on 1 January 2025, primary legislative amendments must be made this year for any alternative option. As outlined in the section one, it is significantly challenging to implement option zero due to the operational and legislative requirements to do so.
37. Therefore, the options (one to three), described in the sections below and analysed in the multi-criteria analysis table (Table 1) are all considered feasible to replace the existing backstop through legislative amendments in 2024. These options are then compared against option zero (as it is the status quo). Some alternative options were considered such as: deferred farm-level pricing and an alternative processor-level split levy (directed at agricultural processors and fertiliser companies). However, these were excluded due to feasibility considerations i.e. not being feasible to implement by December 2024.

Deferred farm-level pricing in the ETS (discarded option)

38. The deferred farm-level pricing would require amendments to defer or suspend the processor level surrender obligations and to keep farm-level reporting and surrender obligations in place. The timeframe would be on 1 January 2027 (as it currently stands).
39. This option would be less effective at reducing emissions than the status quo, because it delays pricing agricultural emissions which is a significant lever to reduce emissions. From an inter-sectoral equity perspective this option delays agricultural emissions pricing, meaning other sectors in the economy may bear the costs to meet our NDC and targets (if they are required to 'do more').
40. Within the agricultural sector, sub-sectors may be disproportionately impacted as, for example, dairy receives a higher profit per unit of emission when compared to hill country sheep and beef farming, but experience the similar compliance costs. This could create intra-sectoral inequities.
41. Moreover, compliance costs could disproportionately impact smaller farmers. It will mean that small scale farmers will be required to navigate the complexities of the NZ ETS which was designed for a larger-scale participants. These smaller scale farmers may struggle to comply depending on their resources.
42. Legislatively this is a relatively straight forward change.
43. High transaction and administration costs for farmers to participate would be expected.
44. Overall, this option was ruled out due to practicality constraints: farm-level pricing would require significant NZ ETS operational and systems level changes. This issue also applies for the status quo, which would also make the status quo unfeasible. It is estimated 100,000 participants would be captured by the animal-farmer obligations. The ETS will have to expand to accommodate the additional 100,000 participants which would likely shift the fundamental design of the NZ ETS (which currently has roughly 4300 participants, of which over 3900 are for forestry) from a system that is optimised for a few large participants to one with a large number of small participants.

Alternative processor-level split levy (discarded option)

45. The alternative processor-level split levy, as an alternative to the backstop options, would mean that agricultural processors and fertiliser companies would be responsible for reporting and paying for emissions, based on the emissions charge applied to products

supplied or bought by farmers or growers. This would be outside the NZ ETS, requiring bespoke legislation.

46. This option will still be less effective at reducing emissions than the status quo, because delays needed to implement it would delay pricing agricultural emissions which is a significant lever to reduce emissions. It delays pricing as it will be timely to establish. From an inter-sectoral equity perspective this option delays agricultural emissions pricing meaning other sectors in the economy will bear the costs to meet our NDCs and targets. From an intra-sectoral perspective, depending on the rate set for long-lived gases and methane, it could be perceived as inequitable if agriculture is paying more or less for its emissions than other sectors.
47. Overall, this option was ruled out due to practicality constraints. This is the costliest option as it requires the Government to develop legislative and regulatory architecture which is outside the NZ ETS in the instance the Government does not come up with an alternative pricing system by 2030. Given that this is likely to be an interim option, it may be better to give the sector certainty and consistency with a commitment to a farm level system. Due to the complexity of this option, operational aspects will need to be funded and ready, for instance, for the significant build costs.

Assumptions used in our analysis of the options for the multi-criteria analysis

48. We have assumed that any option chosen would be ‘superseded’ by an alternative system involving farmer level obligations, as this is consistent with manifesto commitments. We anticipate that any remaining NZ ETS agricultural provisions would be repealed through the legislation implementing the Government’s new agricultural pricing. This implies that the options can be regarded as interim solutions. However, should an alternative scheme not be implemented, these options would be expected to persist indefinitely until they superseded by a new intervention. We have attempted to balance this uncertainty through our assessment of the options.

What criteria will be used to compare options to the status quo?

49. The criteria below will be used to assess the options:
- a. **Effective at reducing emissions** – in line with domestic and international climate change targets and emissions budgets in the short (as an interim option) and long term (if not replaced by a subsequent pricing system);
 - b. **Adaptable** – level of ease to transition for participants and government from chosen option to a longer-term solution for pricing agriculture emissions, including level of short-term resourcing needed to implement the option; and
 - c. **Equitable** – both across agriculture sub-sectors (e.g., by minimising disproportionate impacts on specific sectors and communities), as well as across the economy. For clarity in the multi-criteria table analysis we have split equity into intra-sector (within the agricultural sector) and inter-sector (across the wider economy).
50. These criteria have been chosen based on adaptations of criteria used to assess options for agriculture pricing in previous analysis¹⁴.

¹⁴ <https://environment.govt.nz/assets/publications/regulatory-impact-statement-agricultural-emissions-pricing-2022.pdf>

What options are being considered?

Option Zero (Status Quo) – Maintain the backstop legislation.

51. In this scenario, processor level surrender obligations will begin on 1 January 2025. Agricultural processors will be required to surrender NZUs for the emissions associated with the fertiliser and agricultural produce that they process.
52. Starting on 1 January 2026, the animal farmer obligations in the NZ ETS will begin with animal farmers being required to register and begin monitoring their emissions for reporting. Officials estimate that there could be as many as 100,000 eligible farmers given the definition of animal farmer in the CCRA.
53. Animal farmers will then assume their surrender obligations in the NZ ETS in January 2027. Thereafter they will be required to pay for their annual greenhouse gas emissions in the NZ ETS. This would then supersede processor level obligations.
54. To implement this option would require EPA to transition their operational processes from processors to animal farmers. This will occur after agricultural processors surrender obligations (effective from the 1 January 2025 to 1 January 2027) are superseded by animal farmer obligations onwards. Note that this entire process and transition would require supporting the broader agricultural sector through the change.
55. This option would also require the update of processor level emission factors, as these are out of date.
56. This option assumes that agricultural emissions will be priced through the introduction of a pricing system in the future, as indicated by government. Pricing agriculture through the NZ ETS would be the long-term enduring solution.

Option One – Full repeal and complete removal of NZ ETS obligations (Ministers' Preferred Option)

57. This option repeals and removes any current or future agricultural activities obligations from the NZ ETS. As such, fertiliser and animal processors and animal-farmers will have no reporting or surrender obligations for the biological emissions methane and nitrous oxide emissions associated with the fertiliser and livestock they process. However, upstream carbon dioxide emissions related activities (for example, coal and diesel use) would still be priced in the NZ ETS. Likewise animal farmers will not be required to report and surrender units for their on-farm emissions in the NZ ETS.
58. To implement this option would require primary legislation to amend the CCRA. Sections that will be affected include part 5 of Schedule 3 of the CCRA and associated agricultural sector-specific provisions in the CCRA.
59. Implementing any changes to the ETS system will have associated operational costs for the EPA that are yet to be quantified. For example, they will be required to execute the deregistration of participants from the NZ ETS registry and the scope of their NZ ETS reporting will need to be updated. Any such costs will be met within existing baselines.
60. This option assumes that agriculture emissions will be priced through introduction of a pricing system in the future, as indicated by the government.

Option Two – Maintain on-going processor level reporting only

61. This option would 'deactivate' the NZ ETS agricultural surrender obligations¹⁵ for both farmers and processors in the short term. These provisions would remain in the CCRA, and the Minister would be able to 'reactivate' them in the future via Order in Council. Processor level reporting obligations would remain in place as is currently the case.
62. To implement this option would require changes to primary legislation to remove the dates for surrender obligations to begin (and reporting for farm level), and to add new Ministerial powers to turn on processor surrender obligations at a future date.
63. This option would not require any operational changes to existing systems for agricultural reporting in the NZ ETS.

Option Three – Deferred NZ ETS processor level pricing

64. This option would amend the CCRA to delay processor-level surrender obligations to a specified future point in time to allow time for implementation. The timeframe for implementation would be specified in the legislation and could potentially include a number of milestones and targets that need to be met towards an alternative pricing system (similar to how the NZ ETS Backstop has been implemented up until now).
65. This would support action towards non-ETS pricing by 2030 by keeping the lever of processor-level pricing in place, while allowing time to develop an alternative farm level pricing system that keeps agriculture out of the NZ ETS.
66. This option would amend the CCRA by removing all farm level reporting and surrender obligations. It would also require amendments to the CCRA to introduce a new timeframe for introduction of NZ ETS processor level pricing, if an alternative system is not put in place. The CCRA already has provisions enabling the Minister of Climate Change to defer the animal farmer reporting and surrender obligations. However, the processor level obligations can only be altered by a legislative amendment to the CCRA.

¹⁵ These are primarily located in sections 2A(5C) and (5D), and 219 of the CCRA.

How do the options compare to the status quo/counterfactual?

Table 1: Multi-criteria analysis of Options against the status quo

Criteria	Status Quo	Minister's preferred option		
	Option Zero: Status Quo	Option One: Complete removal	Option Two: Ongoing reporting requirements	Option Three: Deferred processor-level pricing
	Keep the current backstop in place	Full repeal and complete removal of Agricultural NZ ETS obligations	Amendments to indefinitely 'deactivate' farm level reporting and surrender obligations, as well as processor-level surrender obligations. Processors will still be required to report their emissions via the NZ ETS.	Amendments to delay processor-level surrender obligations with a specified date for implementation if no alternative system is put in place, removing all farm level reporting and surrender obligations
Effective at reducing emissions	<p>0</p> <p>Modelling results from 2022 of the processor-level backstop with a single price for all on-farm greenhouse gas emissions projected about an 18% reduction in GHG emissions by 2030, contributing significantly to achieving our greenhouse gas emissions targets. However, the processor-level system will be superseded by NZ ETS farm level making the applicability of these results limited. Also, as per the assumptions, the intent is to implement a system outside the NZ ETS in the future, limiting the scale and applicability of these results.</p> <p>Emissions reductions were primarily achieved through significant land use change from the dairy and sheep & beef sectors towards cropping and forestry production, as well as drops in production and net revenue of animal-based products.</p>	<p>--</p> <p>This option is less effective than the status quo because it removes agricultural emissions from the NZ ETS, which is a significant lever to reduce emissions.</p> <p>As this option corresponds to a loss of emissions reductions compared to the Status quo, it runs the risk of claims that NZ is not acting to reduce agricultural emissions and climate change impacts. Internationally, this could have reputation risks for New Zealand.</p> <p>The purpose of the backstop was to establish a timeline and provide some surety about the pricing of emissions to incentivise the reductions of emissions. There is a risk that the repeal of the backstop will undermine any emission reduction efforts if a clear pathway to alternative pricing is not established.</p>	<p>--</p> <p>This option is less effective than the status quo because it removes agricultural emissions from the ETS, which is a significant lever to reduce emissions. However, it is potentially more effective at reducing emissions in the future than option zero as there is a legislative instrument to reactivate the surrender obligations to price agricultural emissions.</p> <p>Reporting by itself and without pricing agricultural emissions is unlikely to incentivise the necessary level of emissions reductions, particularly at processor level based on existing NZ ETS reporting requirements. (see Option 2 analysis)</p> <p>As this option corresponds to a loss of emissions reductions compared to the Status quo, it runs the risk of claims that NZ is not acting effectively to reduce climate change impacts. Internationally, this could have reputation risks for New Zealand.</p> <p>This creates uncertainty regarding meeting our targets, with no legislated timeframe for pricing agricultural emissions.</p>	<p>-</p> <p>This option is less effective than the status quo because it delays pricing emissions which is a significant lever to reduce emissions. However, it is potentially more effective at reducing emissions in the future than option one as there is a legislative instrument to price agricultural emissions.</p> <p>As this option corresponds to a loss of emissions reductions compared to the Status quo, it runs the risk of claims that NZ is not acting effectively to reduce climate change impacts. Internationally, this could have reputation risks for New Zealand. However, this option provides the opportunity to price agricultural emission in the NZ ETS if an alternative system is not implemented by the set time.</p> <p>Note that the effectiveness of this option would be subject to Cabinet decisions on when the date when the backstop for processor-level surrender obligations come into effect.</p>

Criteria	Status Quo	Minister's preferred option		
	<p>Option Zero: Status Quo</p> <p>Keep the current backstop in place</p>	<p>Option One: Complete removal</p> <p>Full repeal and complete removal of Agricultural NZ ETS obligations</p>	<p>Option Two: Ongoing reporting requirements</p> <p>Amendments to indefinitely 'deactivate' farm level reporting and surrender obligations, as well as processor-level surrender obligations. Processors will still be required to report their emissions via the NZ ETS.</p>	<p>Option Three: Deferred processor-level pricing</p> <p>Amendments to delay processor-level surrender obligations with a specified date for implementation if no alternative system is put in place, removing all farm level reporting and surrender obligations</p>
<p>Adaptable (level of ease for participants and the government)</p>	<p style="text-align: center;">0</p> <p>Timeframes are extremely constrained to implement the necessary regulations to deliver the NZ ETS backstop, including an update to the emissions factors.</p> <p>Significant NZ ETS operational and systems level changes will need to be made to accommodate the agricultural backstops.</p> <p>It is estimated 100,000 participants would be captured by the animal-farmer obligations. Little engagement has occurred to promote awareness of these on-coming obligations. High transaction and administration costs for farmers to participate would be expected.</p> <p>Significant administrative, compliance and data management challenges would need to be overcome quickly to implement this legislation. Work has not been invested in this due to successive policy commitments to price agricultural emissions outside of the NZ ETS.</p> <p>The NZ ETS will have to expand to accommodate the additional ~100,000 participants which would likely shift the fundamental design of the NZ ETS (which currently has roughly 5000 participants mainly large corporations)</p>	<p style="text-align: center;">++</p> <p>Removing the agricultural sector obligations in the NZ ETS would allow resourcing to focus on creating a future farm level pricing system. This removes any duplication of pricing systems ahead of the future system.</p> <p>Complete removal will also mean no compliance requirements for the agricultural sector (as there will be no participants), and minimal changes by the government compared to Option zero.</p> <p>This option will require legislation to be passed to remove agriculture obligations by the end of 2024.</p>	<p style="text-align: center;">+</p> <p>Deactivating agricultural sector surrender obligations in the NZ ETS would allow the time to create a future farm level pricing system.</p> <p>This option will require an amendment to the CCRA to defer surrender obligations for processors as this cannot be done via Order in Council.</p> <p>This option has no additional transitional costs for participants because it already supports processor level reporting. Maintaining this reporting requirement on agriculture sector could assist to set up for a future pricing system. However, there is uncertainty as to when this would be reactivated via future Order in Council by Ministers.</p> <p>This option removes duplication of pricing systems ahead of future system, with assumption that NZ ETS pricing is not activated ahead of the future system.</p> <p>As the processor-level reporting requirements are different to other systems, (e.g., those for Scope 3 reporting) these reporting requirements could get used against NZ exporters to dispute their Scope 3 reporting, e.g., as a non-tariff trade barrier.</p>	<p style="text-align: center;">+</p> <p>Delaying agricultural sector surrender obligations in the NZ ETS would allow the time to create a more accessible and practical system for pricing agricultural emissions at farm level.</p> <p>This option will require amendment to the CCRA to defer or suspend the processor level obligations with inclusion of new dates, milestones and targets for when processor level pricing would be switched on in absence of an alternative pricing system.</p> <p>There are practical implications for processors, e.g., uncertainty as to when they could be expected to comply with the surrender obligations. This uncertainty could impact their ability to plan their operations.</p> <p>There are only 75 processors which are large businesses, and they will have more resources to navigate the NZ ETS system compared to a small-scale farmer.</p> <p>If a farm-level system is established, ETS obligations can be removed, making it only an interim measure as it is currently legislated. This could generate additional cost from introducing two different pricing systems over time.</p>

Criteria	Status Quo	Minister's preferred option		
	<p>Option Zero: Status Quo</p> <p>Keep the current backstop in place</p>	<p>Option One: Complete removal</p> <p>Full repeal and complete removal of Agricultural NZ ETS obligations</p>	<p>Option Two: Ongoing reporting requirements</p> <p>Amendments to indefinitely 'deactivate' farm level reporting and surrender obligations, as well as processor-level surrender obligations. Processors will still be required to report their emissions via the NZ ETS.</p>	<p>Option Three: Deferred processor-level pricing</p> <p>Amendments to delay processor-level surrender obligations with a specified date for implementation if no alternative system is put in place, removing all farm level reporting and surrender obligations</p>
	<p>from a system that is optimised for a few large participants to one with a large number of small participants. This option does not provide for a suitable transition for pricing agriculture outside of the NZ ETS in the future, as duplication of two systems would be costly and resource intensive.</p>			
<p>Equitable</p> <p>Intra-sectoral (Within the agricultural sector)</p>	<p>0</p> <p>In the short run the processor-level surrender obligations in the NZ ETS may disproportionately impact certain agricultural sub-sectors, particularly where emissions estimates at the processor level do not fairly represent emissions occurring on farm (for example due to differential use of emissions mitigation technology).</p> <p>In the long run once the farm level obligations will come into effect (and thus replacing the processor level surrender obligations), it could disproportionately impact smaller farms as they may struggle to comply depending on their resources.</p>	<p>++</p> <p>This option avoids some disproportionate impacts on some sub sectors compared to the status quo option. For instance, dairy farmers will have the same cost of compliance as beef and lamb farmers, despite differences in profitability per tonne of emission.</p> <p>It will mean that small scale farmers will not be required to navigate the complexities of the NZ ETS which was designed for a few large participants.</p>	<p>+</p> <p>If there are only processor-level reporting, then there will be no cross-sector implications. As processors are already currently reporting on their emissions.</p> <p>In the instance that surrender obligations (farmer/processor) are reactivated this may have inter-sectoral equities. For instance, dairy farmers will have the same cost of compliance as beef and lamb farmers, despite differences in profitability per tonne of emission.</p>	<p>+</p> <p>Once the processor-level obligations are invoked, some sub-sectors may be disproportionately impacted, and this could create intra-sectoral inequities. For instance, dairy farmers will have the same cost of compliance as beef and lamb farmers, despite differences in profitability per tonne of emission.</p>
<p>Inter-sectoral (Across the wider economy)</p>	<p>0</p> <p>In the absence of any other interventions from the Government to reduce emissions in the agricultural sector, this will mean that other sectors of the New Zealand economy will be</p>	<p>--</p> <p>Repealing the backstop obligation without an alternative pricing system in place will create a delay to the timeline for pricing agricultural emissions.</p>	<p>--</p> <p>While this option retains the infrastructure to turn on pricing, reporting only is unlikely to result in emissions reductions - and reactivating the surrender obligations via Order in Council would require action by Ministers.</p>	<p>-</p> <p>Delaying the backstop obligation without an alternative pricing system in place will create a delay to the timeline for pricing agricultural emissions. However, because a date will be set this option it creates greater certainty compared to Option two.</p>

Criteria	Status Quo	Minister's preferred option		
	<p>Option Zero: Status Quo</p> <p>Keep the current backstop in place</p>	<p>Option One: Complete removal</p> <p>Full repeal and complete removal of Agricultural NZ ETS obligations</p>	<p>Option Two: Ongoing reporting requirements</p> <p>Amendments to indefinitely 'deactivate' farm level reporting and surrender obligations, as well as processor-level surrender obligations. Processors will still be required to report their emissions via the NZ ETS.</p>	<p>Option Three: Deferred processor-level pricing</p> <p>Amendments to delay processor-level surrender obligations with a specified date for implementation if no alternative system is put in place, removing all farm level reporting and surrender obligations</p>
	<p>bearing the share of emissions reductions that should be borne by the agricultural sector for New Zealand to meet our NDCs and targets.</p>	<p>In the absence of any other interventions from the Government to reduce emissions in the agricultural sector, this will mean that other sectors of the New Zealand economy will be bearing the share of emissions reductions that should be borne by the agricultural sector for New Zealand to meet our NDCs and targets.</p>	<p>In the absence of this action, this will mean that other sectors of the New Zealand economy may be bearing the share of emissions reductions that would otherwise be borne by the agricultural sector for New Zealand to meet our NDCs and targets.</p>	<p>Note that the inter-sectoral inequity of this option could be reduced if to Cabinet decisions on when the date when the backstop for processor-level surrender obligations come into effect earlier. For instance, whether Cabinet sets a date during EB1 (2022-2025) or EB2 (2026-2030).</p> <p>In the absence of any other interventions from the Government to reduce emissions in the agricultural sector, this will mean that other sectors of the New Zealand economy will be bearing the share of emissions reductions that would otherwise be borne by the agricultural sector for New Zealand to meet our NDCs and targets.</p>
Overall assessment	0	0	--	0

What option is likely to best address the problem, meet the policy objectives, and deliver the highest net benefits?

67. The Multi Criteria Analysis (MCA) shows that different options are stronger in achieving some of the criteria than others, and in some instances shows when the options have similar or the same impact.
68. As detailed plans and decisions to create an alternative pricing system have not been completed, there is significant uncertainty regarding introduction of a future pricing mechanism for agriculture emissions.
69. Option zero: maintaining the status quo is most effective at reducing emissions and creates equality with how other sectors emissions in the broader economy are priced. However, it is impractical to implement in the set time, as Option zero would involve an estimated 100,000 participants that have not been engaged on their obligations, and the option would change the fundamental design of the NZ ETS.
70. Option zero is also problematic as the Government wants a non-NZ ETS system, which would mean that it would be removed later, creating significant inefficiencies.
71. Option One: complete removal, creates the highest level of uncertainty for achieving emissions reductions, with the removal of any binding legislation for pricing agriculture emissions. While commitments have been made in the current government's manifesto, and coalition documents, these have not yet been legislated. It therefore creates inequity with pricing for all other sectors of the NZ economy. One of the key advantages of this system is that it does not create potential for any interim pricing option that would then be superseded by a different system. This would have efficiency benefits for both government and participants (who would not have to navigate two systems). It also has efficiency benefits in that it enables government resources to focus on design of future system in the short term.
72. Option two: ongoing reporting requirements is the lowest scoring option as it creates risk and uncertainty for emissions reductions given there is no legislated timeframe for when pricing will occur. The option does not create equity with other sectors in the economy, although is a better option for equity across sector. However, this option reduces the likelihood that two pricing systems are implemented, as there is no hard deadline on processor pricing. Note that in the interim, reporting itself will not result in significant emission reductions.
73. Option three: Deferred processor level pricing, effectively extends out the current ETS backstop for processor only obligations. Deferring surrender obligations to a fixed date in the future signals the government's intent to price agriculture emissions. This may help to incentivise earlier action from the sector in reducing emissions in advance of facing a price (as they are a credible regulatory signal) or incentivise the sector's participation in developing an alternative pricing policy. This option scores moderately against the other criteria compared to the other options as it carries some ongoing complexity to implement, however is more equitable with other sectors as it prices agricultural emissions.
74. Also relevant is that options 2 and 3 arguably are not consistent with the commitment to keep agriculture out of the NZ ETS, as they still have "backstop" style obligations that can either be turned on or have a date by which they become active.
75. In the remainder of this section, we present further analysis on the status quo relative to the Ministers' preferred option (option one). The analysis covers details of the impacts on agricultural emissions (based on previous modelling), cost benefit analyses, and discussion of the impacts of the option on various affected groups.

The Status Quo

76. Impact on Emissions

77. Table 2 below shows the impact of processor level pricing on farm emissions, production, revenue and land-use. These processor-level results are applicable only until a system is implemented outside the NZ ETS.

78. It shows the impact of processor level pricing in the NZ ETS on a number of farm economic and emissions outcomes. The results show that processor level pricing in the NZ ETS could result in substantial emissions reduction, but this emissions reduction is accompanied by some land use change from the dairy, sheep and beef sectors towards cropping and forestry production, as well as drops in production and net revenue of animal-based products. These results are driven by the assumed 2030 NZ ETS price of \$108 per tonne and 90% free allocation implemented as a discount. This scenario assumed that farmers could not get recognised for on-farm mitigation through the processor level reporting and NZ ETS unit surrender systems.

What are the marginal costs and benefits of the Status Quo – Keeping the backstop?

79. Agricultural processor level pricing in the NZ ETS was among the pricing scenarios modelled by Manaaki Whenua - Landcare Research (MWLR) in their farm level economic modelling¹⁶. Other pricing scenarios assessed in the MWLR report included various configurations of the farm-level pricing system outside the NZ ETS. The modelling did not, however, include estimates of the impact of pricing agricultural emissions at the farm level in the NZ ETS (which would have provided an appropriate analysis for the animal farmer backstop, which is a feature of the status quo). Lastly, the model did not include any sensitivity analyses or consider alternative scenarios to quantify the potential range or uncertainty associated with the processor level NZ ETS scenario.
80. The MWLR economic model was a partial equilibrium model for one year (2030 baseline) and it focused on the farm level output, and greenhouse gas emissions. As such the model does not account for the wider economic effects of agricultural emissions pricing for instance on the labour, farm input or processor output markets.
81. Milk production sees an 8 per cent drop, lamb and beef production has a more substantial drop of 19 and 51 per cent respectively (note this metric of beef production excludes beef from culled dairy cows). Similarly, net revenue from dairy production is estimated to drop by about 10 per cent whilst that of sheep and beef drops more substantially by 32 per cent.

Table 2: Impact of processor level pricing on farm emissions, production, revenue and land-use¹⁷

Outcomes	Impact of Processor level pricing in NZ ETS
Emissions Reductions	
All gases	-16%

¹⁶ In 2022, MWLR carried out economic modelling using farm-scale data to estimate the impact of various pricing scenarios on the selected emissions, environmental and economic outcomes. The purpose was to inform ministerial decision making on the pricing of agricultural emissions following the He Waka Eke Noa partnership's recommendation to the Government.

¹⁷ Ministry for Primary Industries (2022) – Impacts of climate change mitigations policy scenarios on the primary sector.

Methane	-17%
Nitrous oxide	-13%
Commodity production	
Milk solids (t)	-8%
Lamb (t)	-19%
Beef (t)	-51%
Net revenue	
Dairy	-10%
Sheep & beef	-32%
Land-use change	
Dairy	-4%
Sheep & beef	-16%
Indigenous forest / scrub	14%
Arable	7.8%

82. These modelling results were used by The New Zealand Institute of Economic Research (NZIER) to conduct a cost benefit analysis of processor level pricing in the NZ ETS along with different configurations of farm level pricing in the NZ ETS and in a standalone agricultural emissions pricing system. Only the processor-level results are applicable here, and are will only apply until a system is implemented outside the NZ ETS. The classifications of the items of costs and benefits from agricultural emissions pricing policy are shown in Table 3.
83. The benefits reflect the value of achieving New Zealand’s greenhouse gas emissions targets and the value of over mitigation¹⁸ of GHG emissions to prevent climate change amongst other aspects. On the other hand, the costs include the value of lost production as is shown in the farm revenue lost with pricing, as well as the costs involved in establishing and administering (ongoing) the pricing system.
84. The value of emissions was priced at \$108.62/tCO₂ -e. This was less than the New Zealand Treasury’s central estimate of the shadow price of carbon of \$145/tCO₂ -e (The Treasury, 2021). However, it is greater than the low estimate of \$97/tCO₂ -e. This price of carbon reflects the marginal cost of reducing emissions to meet the GHG emissions target and budget.
85. The CBA study from NZIER also accounted for the price premium of low emissions produce. Studies have demonstrated the willingness of consumers to pay a premium for produce that is farmed in an environmentally friendly manner. This benefit is included to capture the potential for farms to convert their farm-level emissions reductions into a marketing advantage as a price premium. Research has demonstrated that the potential premium for sustainably sourced agricultural produce is between 11 percent and 25 percent (an average of 18 per cent) (Our Land and Water,

¹⁸ “Over mitigations” are mitigations beyond the target, they still count towards the NDC and still helps avoid climate change. The analysis has separated the emissions reductions into those up to the target and those beyond.

2021). For the modelling, the premium of 18 per cent was applied to 10 percent of livestock production 19.

Table 3: Classification of costs and benefits of processor level pricing

Classification: (Benefit/Cost)	Description of impact
Benefit	Value of achieving GHG domestic target
Benefit	Value of over-mitigation of GHGs
Benefit	Value of premium for carbon action
Cost	Disbenefit - value of under-mitigation
Cost	Farm revenue
Cost	Annual administrative cost
Cost	Establishment cost

86. To set out the costs and benefits year by year into the future for NZ ETS processor level pricing in the CBA, a pathway was created that expressed, as a percentage, emissions reductions needed to meet the legislated targets for GHGs. This pathway was then used to scale both the emissions reductions and the impacts on sector net revenue. The elements of the pathway include:

- The cost of setting up the infrastructure for processor level pricing in the NZ ETS in 2024;
- The legislated methane targets specified for 2030 and 2050. A decrease of 10.0 percent and 35.5 percent, respectively starting from zero in 2025; and
- The MWLCR modelling showed the results of pricing policy on farm production and emissions for a single year (2030), the CBA therefore projected a linear increase in the model results until 2030. After 2030, the impacts remained constant until they surpassed the Government's target. Once the Government's targets were surpassed, the impacts followed the Government's targets from that year through 2050.

87. The summary results of the cost benefit analysis for processor level pricing are shown in Table 4 below.

Table 4: Summary results of net present values for Processor level pricing²⁰

	Processor NZ ETS
Benefits	
Value of achieving GHG domestic target (\$Million)	3,740
Value of over/(under) mitigation of GHGs (\$Million)	851
Value of additional supply of carbon neutral product (\$Million)	449

19 In recent times, a number of agricultural processors and exporters in New Zealand are accounting for and mitigating their Scope Three emissions. The adoption of these targets has been mainly to retain access to critical customers and markets (with their own Scope Three targets) rather than achieving a premium. In table 5 below this framing would change the benefit of "value of premium for carbon action" to an avoided cost of similar magnitude.

20. "A cost-benefit analysis of two greenhouse gas emission policies" NZIER Report (2022) (Unpublished report).

Costs	
Loss of net farm revenue (\$Million)	3,997
Administration costs (government) (\$Million)	16
Compliance costs (farmers) (\$Million)	53
Total benefits (\$Million)	5,040
Total costs (\$Million)	4,067
Net benefits (\$Million)	974
Benefit-cost ratio	1.24
Results without premium for carbon action	
Net benefits	524
Benefit-cost ratio	1.13

88. The results of the CBA are mainly driven by the value of achieving the GHG emissions targets, the value of over mitigation of GHGs, the low emissions product premium, and the farm revenue saved by not implementing pricing. Since establishment and administrative costs are relatively small in comparison to the other cost and benefit items, the main consideration is whether the fiscal costs of achieving our GHG targets and of over mitigations²¹ of GHGs emissions were higher than the economic cost to the agricultural sector. However, it should be noted that this modelling only considers the processor-level ETS obligations, which will be superseded by farm-level ETS obligations in 2027. Administering the farm-level ETS obligations is expected to be extremely costly and given the expected implementation challenges canvassed in previous sections of this document, likely to negatively impact the CBA.
89. The CBA results suggests that pricing agricultural emissions at the processor level in the NZ ETS yields a net present value of \$974 million, with a benefit cost ratio of 1.24 (a benefit cost ratio higher than 1 indicate the discounted benefits outweigh the discounted costs i.e., there is net benefit to price agricultural emissions through processor level surrender obligations). These results also indicate that despite the drop in farm revenue and production, there is value in pricing agricultural emissions in the NZ ETS. When the value of the premium for low-emission products is removed from the analysis, the CBA results show a slightly lower net benefit and benefit cost ratio.
90. In summary, pricing emissions at a processor level has a positive benefit (B/C 1.24, NPV \$0.97 billion over the next 20 years). Table 5 below shows the incremental costs and benefits of the status quo as a whole, encompassing the processor and farm level obligations.

Table 5: Cost and Benefit Impacts of Option Zero (Status quo): keeping the agricultural processor and farm level obligations in the NZ ETS

²¹ "Over mitigations" are mitigations beyond the target, they still count towards the NDC and still helps avoid climate change. The analysis has separated the emissions reductions into those up to the target and those beyond. For example, if agriculture "overachieves", then other sectors may not need to do as much.

Affected groups	Comment	Impact	Evidence Certainty
Additional costs of the preferred option compared to taking no action			
Agricultural processors	Compliance costs	Agricultural processors are already reporting their emissions in the NZ ETS it is expected they will face a minor compliance cost meeting the surrender obligations.	Medium
Farmers	Cost of Emissions	Processors are most likely to pass on the at least some of the cost of emissions down to farmers, increasing the production cost at the farm gate. When the farm level backstop begins in 2026 there is expected to be significant compliance cost to farmers to participate in the NZ ETS. There is a material risk that some farms and subsectors may become unprofitable with pricing	Medium
Regulators	Administrative costs, legislative and regulatory changes	There will be some work needed to be done to prepare the NZ ETS for processor level surrender obligations. However, due to the potential number of participants estimated to participate, the animal farmer reporting and surrender obligations in the NZ ETS will require significantly more work to set up and administer.	Low
Others (e.g., wider govt, consumers, etc.)	Emissions leakage	There is a risk that production could relocate to jurisdictions with less stringent emissions rules and less emissions efficient production leading to a rise in global emissions.	Low
Additional benefits of the preferred option compared to taking no action			

Affected groups	Comment	Impact	Evidence Certainty
Regulated groups	Market premium	Some evidence suggests there are market opportunities for a premium on sustainably grown farm produce, including those grown with a lower emissions profile.	Medium
Others (e.g., wider govt, consumers, etc.)	Value of meeting emissions targets	Modelling results suggests that emissions reduction can be achieved in line with the targets. This could save the fiscal cost of not meeting the targets and international commitments	Low

Option one – Remove agriculture from the ETS (Full repeal of NZ ETS obligations, Ministers’ preferred option)

91. The Ministers’ preferred options is to repeal of the processor and farm level reporting and surrender obligations in the NZ ETS. This departure from the status quo as described in the preceding section means that emissions reductions will be delayed until a pricing mechanism is implemented. The level of emissions reduction realised will depend on policy design. Emission Reduction Plan 2, which is currently being developed, will provide more detail on the Government’s planned approach on agricultural emissions.
92. A direct cost-benefit analysis has not been conducted for this option. However, since this option effectively negates the status quo (of maintaining the legislated backstop), we anticipate that the costs and benefits would be the reverse of the results shown in Table 6.
93. Table 6 below outlines the potential impacts of Option One, Ministers’ preferred option, which remove agriculture from the NZ ETS. The table analyses the incremental costs and benefits of this option. The impacts are categorized based on affected groups, including regulated groups (farmers and agricultural processors), regulators, and others (such as wider government and consumers). Each impact is accompanied by a comment providing details on the nature of the cost or benefit, and assumptions, and associated risks.

Table 6: Impact of Options One - repealing the agricultural processor and farm level obligations in the NZ ETS (Ministers’ preferred option)

Affected groups <i>(identify)</i>	Comment <i>nature of cost or benefit (e.g., ongoing, one-off), evidence and assumption (e.g., compliance rates), risks.</i>	Impact <i>\$m present value where appropriate, for monetised impacts; high, medium or low for non-monetised impacts.</i>	Evidence Certainty <i>High, medium, or low, and explain reasoning in comment column.</i>
Additional costs of the preferred option compared to taking no action			

Regulated groups (farmer and agricultural processors)	Cost of emissions	In the short term, there will be no cost to farmers and processor with regard to paying for their on-farm biological emissions in the NZ ETS	Medium
Regulators	Administrative costs, legislative and regulatory changes	There may be some cost for work needed to be done to remove processors registered in the NZ ETS for the purpose of reporting their agricultural emissions.	Low
Others (e.g., wider govt, consumers, etc.)	Fiscal risk of missing emissions targets	There is a risk that New Zealand may need to purchase offshore mitigations if our international commitments are not met.	Low
Additional benefits of the preferred option compared to taking no action			
Regulated groups	Compliance costs	Farmers and agricultural processors will save on the cost of complying with their NZ ETS reporting and surrender obligations	Low
Regulators	Establishment and administration cost	Government will save on the cost of establishing and administering the system for processors and farmers obligations in the NZ ETS	Medium

Section 3: Delivering Option One: Removal of agriculture from the NZ ETS

How will the new arrangements be implemented?

94. Removing agriculture from the NZ ETS will necessitate amending several sections of the CCRA and its secondary legislation (regulations) to remove all agricultural obligations at both processor and farm level.
95. The repeal would include removing the current processor-level reporting. The current methodology for calculating emissions reporting at the processor level is set out in secondary legislation (Climate Change (Agriculture Sector) Regulations 2010). This will also need to be revoked, along with the Climate Change (Animals-Farmer Activities) Order 2023 which set the commencement dates for animals-farmer obligations.
96. Once Cabinet decisions are made, PCO will be instructed to begin drafting legislation to amend the CCRA to repeal agriculture from the NZ ETS.
97. In order to implement Option One the Bill will need to be introduced to the House and progress through the Select Committee Process and the subsequent readings by December 2024. Given the short timeframe, the Select Committee process will be four months.
98. For completeness, policy decisions regarding agriculture emissions reductions are expected to be made over the course of the Government’s term, given the commitment to measuring emissions in 2025 and pricing by 2030, and the legislated requirement for the development of the Emission Reduction Plan 2 (due in 2024).
99. Implementing these changes will have associated operational costs for the EPA that are yet to be quantified. For example, they will be required to execute the deregistration of participants from the NZ ETS registry and the scope of their ETS reporting will need to be updated. Any such costs are proposed to be met within existing baselines.

Risks and mitigations

100. Table 7 below outlines the potential risks associated with Option One – Complete removal of agriculture from the NZ ETS. It also highlights the implications of the risks and possible mitigations strategies.

Table 7: Examples of risks, their potential implications, and some opportunities for mitigation of those impacts.

Risk	Impact	Mitigation
Agriculture emissions pricing system is not progressed to implementation within the timeframes specified in assumptions.	<p>Less incentive for the agriculture sector to reduce emissions.</p> <p>Less emission reductions, not meeting emission targets.</p> <p>International reputational impact.</p>	<p>Advocate for sector driven activities, e.g., Scope 3 reporting.</p> <p>Promote and educate for better on-farm action.</p> <p>Development of Emission Reduction Plan 2.</p>
Delay in amendment legislation, risking missing 1 January 2025 deadline.	<p>System is not ready for participants.</p> <p>No emission reduction activity.</p>	Be clear about deadlines to minimise likelihood of missing them.

Risk	Impact	Mitigation
		Prioritise legislation process.
Strong opposition to removing the NZ ETS backstop.	Media scrutiny, Judicial review.	Signal future direction. Engage with the sector and groups with a wider interest.
Delay in obligations.	Missing the legislated targets and international commitments (NDCs). Potential legal actions and court declarations.	Minimise delays. Promote other actions.
No backstop.	Without the lever of a backstop this could impede emission reduction efforts.	Promote other actions to reduce agricultural emissions.
No specific consultation on the CCRA amendment.	Backlash from sector or wider groups.	Promote future plans.

How will the new arrangements be monitored, evaluated, and reviewed?

101. The repeal of the backstops means that there will be no direct monitoring, evaluation or review of the particular policy process. However, programmes such as the Greenhouse Gas Inventory, the Emission Reduction Plan (ERP), and the work of the Climate Change Commission, will all still monitor New Zealand's emissions and our progress towards our targets and commitments – and so should be considered of high relevance.
102. For example, the Emission Reduction Plan process has significant governance which has an overview of the policies and interventions in place with a strong focus on meeting budgets and targets. There is also a requirement on the Minister for Climate Change, whose duty is to see that New Zealand meets these targets.
103. Further, the design of the farm level scheme is likely to directly take into account the emissions reductions it needs to achieve; this suggests some level of monitoring, evaluation and review process is likely required.