Ministry for the Environment
Manatū Mō Te Taiao

Improvements to the New Zealand Emissions Trading Scheme

Consultation document

New Zealand Government

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Ministry for the Environment
Manatū Mō Te Taiao

Making Aotearoa New Zealand the most liveable place in the world
Aotearoa – he whenua mana kura mō te tangata

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Message from the Minister

Just a few weeks ago, our Government finished consulting on the Zero Carbon Bill – the legislation that will put in place the core building blocks to support our transition to a low-emissions and climate resilient Aotearoa New Zealand. It will give New Zealanders certainty no matter which government is in power – by setting a clear emissions reduction target and helping to chart the pathway to get there.

The Zero Carbon Bill will not get us through the transition by itself. As our key tool for reducing emissions and meeting our emissions reduction targets, the New Zealand Emissions Trading Scheme (NZ ETS) has a vital role to play.

We need effective emissions pricing to incentivise businesses to reduce emissions, innovate, and invest in low-emissions solutions. That is what the review of the NZ ETS was all about.

The review, completed in mid-2017, looked at how to improve the overall settings of the NZ ETS so it could best support New Zealand to meet its future climate change targets. There was a clear call from you to strengthen the scheme and improve its stability and predictability. In answer to that call, changes are being made.

The changes proposed in this document will enable us to cap emissions from sectors covered by the NZ ETS and manage that cap over time. They provide the basis for a credible and well-functioning scheme in the 2020s. Your responses will inform the development of this improved framework, a framework that provides a more predictable environment for decision-making, and follows a transparent process when changes need to be made.

Your feedback on the proposals in this document will shape the legislative changes required to establish the improved framework. We intend to come back to you for further consultation in 2019 with regulations for the technical aspects and unit supply volumes that will set a cap on the NZ ETS.

It's important to start consultation on these issues now to make changes to the NZ ETS, along with establishing an independent Climate Change Commission and a 2050 target by the end of 2019. We know that taking action sooner will reduce costs to our economy in the long term.

So I now call on you to let us know whether this is the right framework for the scheme. Will the proposals allow the NZ ETS to do what it's designed to do – be a key tool to reduce emissions and get New Zealand on the path to net zero emissions by 2050?

Hon James Shaw
Minister for Climate Change

About this consultation

The proposals in this document seek to improve the New Zealand Emissions Trading Scheme

The New Zealand Emissions Trading Scheme (NZ ETS) was established in 2008 to support New Zealand to meet its international climate change targets and reduce greenhouse gas emissions below business-as-usual levels. It does so by putting a price on greenhouse gas emissions and removals.

The Government seeks feedback on a range of proposals to improve the NZ ETS. The proposals are outlined briefly in the summary and in further detail in subsequent chapters of this discussion document.

The proposals respond to the findings of the 2015/16 NZ ETS review. The review, which concluded in mid-2017 identified several problems with the scheme. It identified the Government does not have the tools to effectively manage the supply of units into the market, that there is significant regulatory uncertainty for participants and technical and operational features need improvement.

The proposals aim to make the scheme fit-for-purpose to help New Zealand deliver on its emissions reduction targets. The proposals focus primarily on the framework of the NZ ETS so the scheme provides more predictability for market participants and gives the Government flexibility to make well-signalled adjustments in response to changing circumstances.

The Government has also released a separate discussion document with proposals for improvements to forestry in the NZ ETS. Forestry is an important source of abatement for New Zealand and how it transitions to a net zero emissions economy. The forestry proposals aim to improve NZ ETS incentives for new forest planting, including permanent forests.

This discussion document does not consider the role of agriculture in the NZ ETS. The Climate Change Commission is expected to consider whether and how agricultural emissions should enter the scheme.

The New Zealand Emissions Trading Scheme proposals support the Government's wider climate change policy

The proposals in this document support the Government's three fundamental objectives for climate change policy and New Zealand's transition to a net zero emissions economy. These objectives aim to promote leadership at home and internationally; a productive, sustainable and climate resilient economy, and a just and inclusive society.

In addition, the proposals support New Zealand's commitment to the Paris Agreement on climate change,[1] and allow for the outcomes of the Government's proposed Zero Carbon Bill (ZCB) to be taken into account.[2]

There will be further consultation on the details of these proposals

Most of the proposals outlined in this document will require changes to the NZ ETS legislation.[3] Legislative change is a significant process, and it is therefore important we get these changes right. Your feedback is a key input into this process.

We are not consulting on the specific settings of the NZ ETS at this time. For example, we are consulting on the design of a mechanism to auction units, but not on the amount of the units to be auctioned. We are likely to consult on these more detailed settings[4] in 2019 as part of a process to put regulations in place to operationalise the new framework proposed in this document. This timing is necessary to develop better evidence on New Zealand's abatement opportunities and costs, and to take into account the outcomes of the ZCB process.

About this document

Section 1 of this document gives background information on the NZ ETS and the findings of the NZ ETS review. This section also covers other ongoing climate change policy work, including the ZCB and the work of the Interim Climate Change Committee.

Section 2 contains five proposals that deal with the supply of units into the NZ ETS. Collectively, these five proposals will enable the Government to cap emissions from sectors covered by the NZ ETS, and manage this cap in a coordinated and predictable way.

The 'coordinated decision-making' proposal considers how the government will manage the supply of units into the NZ ETS over time. It also considers proposals on specific features of the NZ ETS, including: auctioning; the price ceiling; limiting the use of international units; and industrial allocation.

Section 3 contains proposals that deal with operational matters, such as how participants engage with the scheme. These proposals cover four areas: governance of the NZ ETS; market information; compliance and penalties; and technical and operational improvements.

The proposals are summarised in the Summary of proposals.

Section 4 describes the objectives, criteria and approach used to analyse options contained within this document.

Section 5 contains details on how to have your say.

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1 See https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement

2 The Government is developing a ZCB to establish a new 2050 target, a system for setting emission budgets for New Zealand, and an independent Climate Change Commission. Once the Bill has been introduced into Parliament a select committee process will follow, with a view to passing the legislation by mid-2019.

3 The Climate Change Response Act 2002 establishes the NZ ETS.

4 These detailed settings include the level of the limit on international units, the trigger price and amount of units held in reserve for the price ceiling, the volume of units to be auctioned, the level of infringement fines, and details related to forestry accounting settings.

Next steps

Consultation on unit supply volumes and technical details (eg, operational rules for auctioning) is expected to follow ZCB final policy decisions, including on the 2050 target and role of the independent Climate Change Commission. These details are expected to be provided through supplementary regulations in 2019.

This means consultation at this stage is **not** considering:

1. the level of a limit on international units in the 2020s
2. the level of the new price ceiling and number of units associated with it[5]
3. the proposed number of units to auction.

Submissions on the proposals in this document close at 5.00 pm 21 September 2018.

Information about how to make a submission, including questions to guide your feedback, is included in section 5 of this document.

[5] Note that it is proposed in the consultation material that the price ceiling would be set at a level above $25 (the current level of the fixed price option) and that it would increase over time.

Summary of proposals

Summary of coordinated decision-making proposals

- The Government proposes to introduce an annual process for setting and announcing NZ ETS unit supply volumes over a five-year rolling period. This will set an overall limit (ie, a cap) on the number of units supplied into the NZ ETS market, and allow this to be managed over time.
- The Government seeks feedback on what factors should be considered when setting unit supply volumes, and whether there needs to be any restrictions on how and when decisions are made.

Summary of auctioning proposals

- The Government proposes to auction New Zealand Units (NZUs) using a single round, sealed bid, uniform price auction format.
- This type of auction is considered to minimise complexity, protect against market integrity risks, and support market efficiency. This proposal takes into account that a secondary market for NZUs already exists.
- It is proposed that all New Zealand Emissions Trading Register (NZ ETR) account holders are eligible to participate in auctions. This is to encourage wide participation and maximise the opportunity for competitive bidding.
- The Government also seeks views on whether auctions should be held weekly, monthly, quarterly, or annually. The Government does not prefer weekly or annual auctions.
- Feedback is also sought on whether auction proceeds should be earmarked for a specific purpose.

Summary of price ceiling proposals

- The Government proposes to replace the current price ceiling in the NZ ETS, the $25 fixed price option (FPO), with a different price ceiling called a cost containment reserve (CCR).
- A CCR is a type of price ceiling that is incorporated into an auction mechanism. The units held in the reserve are auctioned once the price ceiling is reached (trigger price). A CCR is proposed because it balances price risks for NZ ETS participants with fiscal risks for the Government.
- It is proposed that the CCR price ceiling is managed through the coordinated decision-making process. This would include setting the amount of units to be held in the CCR and the level of the price ceiling for each year. It is likely the initial level of the price ceiling for the CCR would be set at a value higher than $25 and increase over time. (Note that the settings themselves will be consulted on at a later date.)
- The Government seeks feedback on what happens if the CCR price ceiling is struck or other significant events occur (such as a decision to link the NZ ETS with another carbon market). This is because these situations could mean that previously determined price ceiling settings may no longer be appropriate.
- While the FPO will remain in place until at least 2020, the Government is aware that its $25 price level may not be appropriate throughout this period of time. Consequently, it is considering making adjustments to the FPO price level before 2020.

- The Government intends to keep prices in the NZ ETS in line with international emissions prices, especially in the next three to five year period as the improvements outlined in this document are fully implemented.
- It is important that prices in the NZ ETS are reasonably predictable during this three to five year transition period. This is consistent with a just and fair transition.

Summary of international unit limit proposals

- The Government will limit the number of international units NZ ETS participants can use if the scheme reopens to international carbon markets. This is an important component of a cap on emissions.
- Any international units used would be required to meet high standards of environmental integrity.
- In the future, there are two modes through which international units could be made available to NZ ETS participants. (Note the Government already has powers in the NZ ETS legislation to enable and limit both modes.) This could occur:
  - **directly**, through market participants purchasing, trading and surrendering international units themselves; and/or
  - **indirectly**, via the Government purchasing international emission reductions and auctioning NZUs.
- The Government seeks feedback on what impacts the different modes might have on participants and the NZ ETS market.
- The Government seeks feedback on whether different types of participant should have different quantitative limits, if they are able to access international units directly.
- The Government proposes that the limit on international units in the NZ ETS is managed through the coordinated decision-making process. This would involve an annual announcement of the limit for the following five years.

Summary of industrial allocation phase-down proposals

- The Government seeks feedback on how decisions to phase-down industrial allocation should be made. Over time, more units will be provided through industrial allocation than necessary to mitigate the risk of emission leakage, and this will put pressure on New Zealand's emissions budgets.
- Options we seek feedback on include:
  - set a test or condition that would trigger a phase-down during 2021-2030
  - establish a decision making process to determine industrial allocation rates over time
  - make an upfront decision to start phasing-down industrial allocation from 2021.
- The Government seeks feedback of the impact of reducing industrial allocation in the range of 1–3 per cent per year on firms and the market.

Summary of market governance proposals

- The NZ ETS will operate more effectively when market participants are both adequately informed and protected when they trade NZUs.
- The Government seeks feedback on both existing and potential future risks that the existing market governance regime may expose participants to.

Summary of market information proposals

- The Government has established a dedicated NZ ETS website. The purpose of the website is to make it easier to access NZ ETS-related information, to support informed decision making by participants.
- The Government seeks feedback on the content and usability of this website, this can be provided on our website.
- The Government also seeks feedback on whether it should make individual participant emissions data and compliance information publicly available.

Summary of compliance and penalties proposals

- The Government seeks feedback on options to improve the NZ ETS compliance regime.
- The Government proposes to introduce a set of strict liability infringement offences for lower-level non-compliance.
- The Government also seeks feedback on whether to change the $30 per unit penalty applied to a person who fails to surrender or repay units by the due date.

1 Introduction and context

1.1 About the New Zealand Emissions Trading Scheme

The New Zealand Emissions Trading Scheme (NZ ETS) is New Zealand's main tool for reducing emissions. It supports and encourages global efforts to reduce greenhouse gas emissions by:

- helping New Zealand to meet its emissions reduction targets
- reducing net emissions below 'business-as-usual' levels.[6]

How the New Zealand Emissions Trading Scheme works

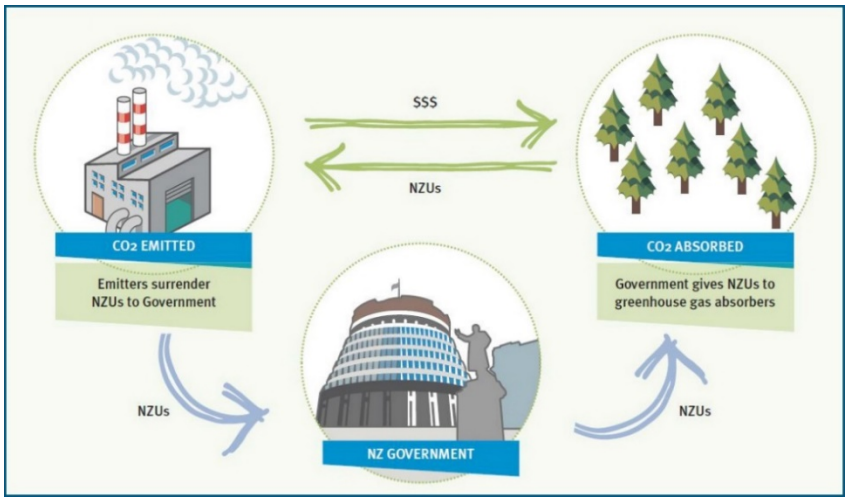
The NZ ETS puts a price on greenhouse gas emissions by requiring businesses across all emitting sectors of our economy, except agriculture, to purchase and surrender units to the Government for their emissions. This means just over half of New Zealand's greenhouse gas emissions are covered by emissions pricing.

Emitters must either reduce their emissions or purchase units from others; for example, from foresters who have earned New Zealand units (NZUs) because their trees remove carbon dioxide from the atmosphere. The price of units depends on their supply and demand. This is underpinned by the cost of action to reduce emissions and the ambition of New Zealand's targets to reduce emissions.

The scheme creates a financial incentive for businesses to invest in technologies and practices that lower emissions. It also encourages forest planting by allowing eligible foresters to earn NZUs as their trees grow and absorb carbon dioxide (figure 1).

Each emissions unit represents 1 tonne of carbon dioxide equivalent (CO_2-e) of greenhouse gas emissions. Currently, the only eligible emissions units in the NZ ETS are NZUs and New Zealand originated Assigned Amount Units.

Figure 1: How the New Zealand Emissions Trading Scheme works



[6] Section 3 of the Climate Change Response Act 2002.

1.2 New Zealand Emissions Trading Scheme review

Background

The Government reviewed the NZ ETS from late 2015 to mid-2017. The review assessed the operation and effectiveness of the scheme in light of the Paris Agreement and New Zealand's submission of its first Nationally Determined Contribution (NDC). This NDC (often known as the '2030 target') specifies that New Zealand will reduce its greenhouse gas emissions to 30 per cent below 2005 levels by 2030.

Findings

Following consultation and engagement with stakeholders, the review identified that the NZ ETS needs improvements to effectively support New Zealand to meet its 2030 and future emissions reduction targets. The review found that:

- the Government does not have the tools required to manage the supply of units
- current settings and management of the NZ ETS create significant regulatory uncertainty
- technical and operational issues are causing administrative inefficiencies.

In-principle decisions on the unit supply framework

In July 2017 Cabinet made in-principle decisions[7] to:

- introduce auctioning of NZUs to align the NZ ETS with New Zealand's emissions reduction targets
- limit the use of international units when the NZ ETS reopens to international carbon markets
- develop a different price ceiling to eventually replace the current $25 fixed price option
- coordinate decisions on the unit supply settings in the NZ ETS over a five-year rolling period.

In December 2017, the current Government noted these changes would be pursued through legislative amendments by the end of 2019.[8]

The proposals in this document are the result of further work on how to implement these in-principle decisions and resolve other issues identified by the review. Further information on the NZ ETS review is available on the Ministry for the Environment's website.[9]

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7 See www.mfe.govt.nz/node/23492

8 See www.mfe.govt.nz/more/cabinet-papers-and-related-material-search/cabinet-minutes/100-day-plan-climate-change for further information.

9 See www.mfe.govt.nz/climate-change/what-government-doing/new-zealand-emissions-trading-scheme/reviews-of-nz-ets/nz-ets for further information.

1.3 Links to wider climate change policy

This Government is committed to taking action on climate change and transitioning New Zealand to a low-emissions, climate resilient future in a manner that is fair for all New Zealanders. The NZ ETS is New Zealand's main tool for reducing emissions and it will play an important role in achieving our climate change targets.

Setting our long term trajectory – linkages with the Zero Carbon Bill

A key theme from the NZ ETS review consultation was New Zealand needs a long-term plan for responding to climate change and a clear view of the role of the NZ ETS in this. The Government has taken this feedback on board.

The Government's climate change priority is to introduce the Zero Carbon Bill (ZCB).[10] The ZCB will set the overall direction and long-term pathway for the transition to a low-emissions and climate resilient New Zealand. The ZCB will set a new long-term emissions reduction goal for 2050. It will also establish an emissions budget process to act as 'stepping stones' towards the 2050 target, and an independent Climate Change Commission (Commission).

The NZ ETS will be an important lever for New Zealand's transition to a low-emissions and resilient economy, alongside other climate change policies. The proposals in this document are designed to improve the framework of the NZ ETS so it effectively supports the transition.

The role of the Commission

The ZCB is considering the role of the Commission, including its relationship to decision-making for the NZ ETS.[11] There are two options: an advisory role or a decision-making role. An advisory role would mean the Commission makes recommendations on the supply of units in the NZ ETS, which the Government could then adopt, modify or reject. A decision-making role would mean the Commission sets the overall level of units supplied into the NZ ETS.

Either role will affect the process for making unit supply decisions in the NZ ETS. The Government is expected to make final policy decisions on the ZCB in late 2018. Decisions on unit supply will be made after ZCB decisions, and further consultation will occur on NZ ETS settings in 2019.

Agricultural emissions

This discussion document does not consider the role of agriculture in the NZ ETS. The Government is expected to consider this issue in the second half of 2019, after receiving advice from the Commission. Ahead of the Commission being established, an Interim Climate Change Committee is developing evidence and analysis to inform the Commission's advice on whether and how agriculture should be brought into the NZ ETS.

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[10] Consultation on the ZCB took place in June-July 2018. See *Our Climate Your Say: Consultation on the Zero Carbon Bill* (Ministry for the Environment, 2018), www.mfe.govt.nz/publications/climate-change/our-climate-your-say-consultation-zero-carbon-bill.

[11] See page 43 of *Our Climate Your Say: Consultation on the Zero Carbon Bill* (Ministry for the Environment, 2018), www.mfe.govt.nz/publications/climate-change/our-climate-your-say-consultation-zero-carbon-bill.

Legislative changes for the Paris Agreement

Amendments to the Climate Change Response Act 2002 (the Act) are also needed to assist New Zealand's domestic compliance with its obligations under the Paris Agreement. These legislative changes were signalled when New Zealand ratified the Paris Agreement.[12] Amendments to enable compliance with the Paris Agreement are expected to be made in 2019 in conjunction with the NZ ETS legislative changes proposed in this document.

[12] See page 17 of *National Interest Analysis: The Paris Agreement* www.parliament.nz/resource/en-NZ/00DBSCH_ITR_69746_1/78aeee3af9672be07fa005a3898fcba3e48f2e58.

2 New Zealand Emissions Trading Scheme unit supply framework

2.1 Overview

Decisions on NZ ETS unit supply are key to managing the NZ ETS in line with New Zealand's emissions reduction targets. How we manage unit supply over time is critical to provide regulatory predictability and stability to the scheme.

The five proposals in this section would collectively enable the government to cap emissions from sectors covered by the NZ ETS and manage this cap in a coordinated, transparent and predictable way. In other words, the proposals would provide the tools to limit the amount of units (and therefore emissions) in line with our emissions reduction targets and associated emissions budgets.

The first proposal, 'coordinated decision-making', deals with the overall management of this cap.

The four other proposals consider specific NZ ETS components (auctioning, the price ceiling, limiting international units and industrial allocation) that supply units into the NZ ETS. These settings would need to be managed (through the coordinated decision-making process) to form the cap on emissions.

Forestry is a major source of supply into the NZ ETS. A separate discussion document sets out proposals that specifically relate to forestry. The proposals in this document do not place a limit on NZUs earned for forestry removals, as these removals help New Zealand to meet its emissions reduction targets by offsetting other emissions.

Predictable annual decision-making

This section considers how unit supply decisions should be enabled in the NZ ETS legislation. These would be operationalised through regulations, with annual regulation updates setting unit supply volumes and the price ceiling for five years into the future.

The unit supply proposals aim to put in place the foundations for a transparent and predictable annual regulation update process.

Links with emissions budgets

The ZCB proposes to establish emissions budgets as 'stepping stones' towards a new 2050 target for New Zealand. An emissions budget is the amount (in tonnes of CO_2-e) of emissions that can be emitted over a certain period. The ZCB consultation proposes three emissions

budgets of five-years each would be set to give a minimum 'look-ahead' timeframe of between 10 and 15 years.[13]

Once emissions budgets are set, it should be relatively straightforward to align the NZ ETS to these. This is because each unit in the NZ ETS equals 1 tonne of CO_2-e emissions, meaning the amount of units in the NZ ETS can be aligned to the emissions budget.

The Government is not yet making decisions on unit supply volumes

We are not consulting on the specific unit supply volumes at this stage. This is because the outcomes of the ZCB, including the role of the independent Climate Change Commission, could affect how the NZ ETS proposals should be implemented.

2.2 Coordinating unit supply decisions

Summary of coordinated decision-making proposals

- The Government proposes to introduce an annual process for setting and announcing NZ ETS unit supply volumes over a five-year rolling period. This will set an overall limit (ie, a cap) on the number of units supplied into the NZ ETS market, and allow this to be managed over time.
- The Government seeks feedback on what factors to consider when setting unit supply volumes, and whether there needs to be any restrictions on how and when decisions are made.

Context

Emissions trading schemes are quantity-based policy instruments. An important factor in determining the price of emissions units is the volume of units supplied to the ETS market. Information on expected unit supply volumes into the NZ ETS helps decision-making by allowing participants to judge the value of emissions units and, therefore, the cost-effectiveness of investments in low-emissions technologies.

The Government has heard from stakeholders that policy uncertainty has undermined the effectiveness of the NZ ETS for promoting investment in low-emissions technologies and forestry. For example, Government decision-making in the NZ ETS has often been reactive and perceived as unpredictable. Coupled with little clear information on NZ ETS unit supply and demand, it is difficult for participants to form views on future policy settings and carbon prices.

Existing legislative provisions on an 'overall New Zealand Unit limit'

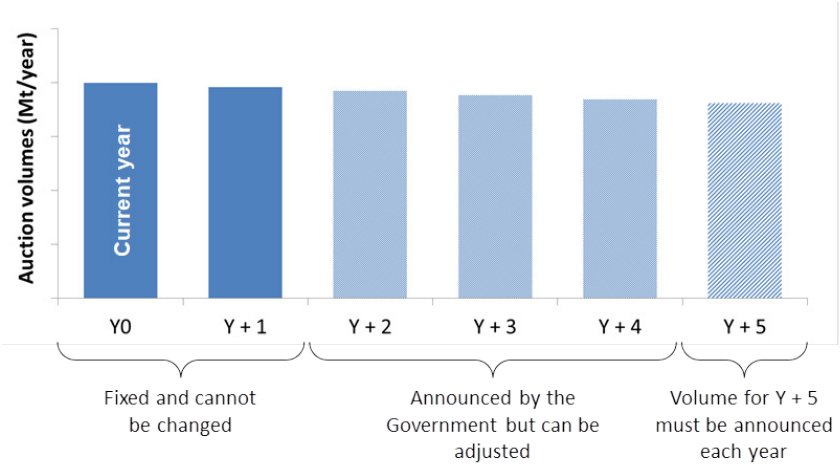
In response to this feedback, the Government made an in-principle decision to coordinate unit supply decisions. This will extend a process already provided for in the NZ ETS legislation, which requires that an 'overall NZU limit' is specified in regulations before auctions can be

[13] See page 36 of *Our Climate Your Say: Consultation on the Zero Carbon Bill* (Ministry for the Environment, 2018), www.mfe.govt.nz/publications/climate-change/our-climate-your-say-consultation-zero-carbon-bill.

held.[14] Currently the overall NZU limit would take into account industrial allocation volumes and limit the maximum amount of units that can be auctioned each year.

The overall NZU limit must be set annually for five years into the future from the date specified in regulations, and then extended annually by a further year (figure 2). This five-year rolling process limits the maximum amount of units that can be auctioned each year, because no NZUs can be auctioned if they exceed the overall NZU limit.

Figure 2: Existing NZU limit provision relating to auctioning



Note: Mt = megatonnes; Y = year.

The NZ ETS legislation provides several factors that the Minister for Climate Change must have regard to when setting the 'overall NZU limit':[15]

- the number of units New Zealand receives under any international agreement[16]
- New Zealand's international obligations, including any obligation to retire units[17]
- proper functioning of the ETS
- New Zealand's projected emissions trends
- domestic targets
- number of NZUs expected to be allocated
- emissions covered by the ETS
- arrangements that govern the operation of the ETS
- any limit on international units
- other matters the Minister considers relevant.

The NZ ETS legislation also provides some restrictions on the unit supply decisions made prior to auctioning:

- one year's notice must be given before amended regulations take effect
- no NZUs may be auctioned if the overall NZU limit is exceeded

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[14] Section 30GA of the Climate Change Response Act 2002.

[15] Section 30GA of the Climate Change Response Act 2002.

[16] These may be updated for the Paris Agreement.

- the number of NZUs allocated for industry must not be limited by the overall NZU limit
- regulations must be consistent with international agreements[17]
- public prior consultation is required with persons likely to be substantially affected.

Issue

In July 2017, the Government made an in-principle decision[17] to extend the decision-making process for auctioning and industrial allocation volumes to include:

- the limit on international units
- the level of the price ceiling and the volume of units to be held in the reserve, if a decision is made to have a cost containment reserve price ceiling.

New processes are needed to support coordinated unit supply decisions over a five-year rolling period. This is an opportunity to develop a more transparent and consistent approach to managing unit supply in the NZ ETS.

Ideally, the Government would provide certainty about unit supply settings over the long term, but this is difficult to do because of uncertainties about future circumstances. For example, over time we may see changes to the scope of the NZ ETS, New Zealand's climate change targets, international carbon markets, technology, economic forecasts, emissions projections and government priorities. These developments will change what NZ ETS settings are appropriate for meeting the government-of-the day's objectives.

For example, the proposal to coordinate NZ ETS unit supply decisions may be affected by the ZCB. This could include decisions on emissions budgets, the new 2050 emissions reduction target and the role of the independent Climate Change Commission, as well as successive NDCs under the Paris Agreement.

The coordinated decision-making process may also need to consider decisions on phasing-down industrial allocation. Industrial allocation decisions will change the number of NZUs expected to be allocated over time.

Options

What must the decision-maker consider when setting unit supply volumes?

When making decisions about unit supply, the right balance needs to be found between delivering regulatory predictability to participants and allowing the Government enough flexibility to make adjustments as circumstances change. This means the Government must consider what factors must be taken into account when making unit supply decisions.

As described above, the Minister for Climate Change must have regard to several factors when setting the overall NZU limit. The Government is seeking to extend this process to setting the international unit limit and the price ceiling. Therefore, it may be appropriate to add other factors that the decision-maker must take into account when setting the overall NZU limit. For example, other factors could include:

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[17] See www.mfe.govt.nz/node/23492.

- emissions budgets, as proposed in the ZCB
- recommendations from the independent Climate Change Commission proposed in the ZCB
- agreements or arrangements regarding transfers of international emissions reductions
- non-ETS climate change mitigation policies
- modelling of New Zealand's domestic abatement potential and costs
- forestry reporting periods
- forecasts of international carbon prices
- inflation rates.

This list is not considered to be exhaustive. The Government seeks feedback on what factors the decision-maker should take into account when making unit supply decisions in the NZ ETS.

Restrictions on the decision-making process for unit supply

There are limited restrictions on unit supply decisions currently. The Government is considering whether these need to be strengthened to support increased market confidence and regulatory predictability for NZ ETS participants.

For example, currently changes to the NZU limit requires one year's advanced warning. Restrictions could be added to when and how unit volumes can be adjusted in two to five years.

Adjustments could be restricted so:

- unit supply volumes in the NZ ETS align with New Zealand's emissions reduction targets (to within a certain amount)
- they can only occur when there has been a significant change in context (eg, changes in emissions projections or emissions budgets)
- the total increase or decrease in unit supply volumes do not exceed a specific percentage change
- the Government is required to explain if it makes a change to unit supply volumes.

These restrictions could apply to all unit supply volumes, or to specific settings. For example, it may be appropriate to have more stringent rules around changes to the limits on international units and the settings of the price ceiling, and more lenient rules for changes to auction volumes.

This list is not considered to be exhaustive. The Government seeks feedback on what factors the decision-maker should consider when making unit supply decisions in the NZ ETS.

Questions

1. What issues should the decision maker consider when making unit supply decisions?
   - proper functioning of the ETS
   - NZ's projected emission trends
   - number of NZUs expected to be allocated

Questions

- emissions covered by the ETS
- arrangements that govern the operation of the ETS
- any limit on international units
- emissions budgets, such as those proposed in the Zero Carbon Bill
- recommendations from the independent Climate Change Commission proposed in the Zero Carbon Bill
- agreements or arrangements regarding international emissions reductions
- non-ETS climate change mitigation policies
- modelling of New Zealand's domestic abatement potential and costs
- forestry reporting periods
- forecasts of international carbon prices
- inflation rates
- other (please explain).

2. What, if any, restrictions should be placed on the NZ ETS decision maker when making unit supply decisions? (For example, currently one year's notice must be given for changes to unit supply volumes).

2.3 Auctioning

Summary of auctioning proposals

- The Government proposes to auction New Zealand Units (NZUs) using a single round, sealed bid, uniform price auction format.
- This type of auction is considered to minimise complexity, protect against market integrity risks, and support market efficiency. This proposal takes into account that a secondary market for NZUs already exists.
- It is proposed that all New Zealand Emissions Trading Register (NZ ETR) account holders are eligible to participate in auctions. This is to encourage wide participation and maximise the opportunity for competitive bidding.
- The Government also seeks views on whether auctions should be held weekly, monthly, quarterly, or annually. The Government does not prefer weekly or annual auctions.
- Feedback is also sought on whether auction proceeds should be earmarked for a specific purpose.

Context

The Government has decided to introduce auctioning of NZUs, to align the NZ ETS to New Zealand's emissions reduction targets. The NZ ETS legislation allows for an auctioning mechanism to be established through regulations.

Auctioning through a competitive bidding process allows the Government to sell NZUs[18] at the market price. Auctioning is a common feature of many emissions trading schemes internationally.

Issue

Auctioning needs to be designed to work in the context of the NZ ETS, including the existing secondary market.[19] The secondary market price is an important signal for auction participants about how they choose to bid at auction. In other carbon markets which have auctions, the 'clearing price' at auction has typically been very close to the secondary market price. The secondary market also allows auction participants to on-sell any surplus units, or to purchase any shortfall. The volume sold in any given auction needs to consider the existing secondary market's liquidity, so auction participants can effectively manage their surplus/shortfall.

Options

The Government seeks feedback on three key choices for the auction design.

i. **Format:** this includes bidding format and pricing design. Bidding format refers to the way the process of making bids is structured, and pricing design is how auctions determine which bids win, and at which price.

ii. **Frequency**: how often the Government holds auctions.

iii. **Participation:** who is able to participate in an auction.

The Government also seeks views on the use of auctioning proceeds. The proceeds from auctioning could either be directed to specific purpose(s), or returned to the Crown accounts.

Format: Auction bidding format and pricing design

Auction formats are characterised by:

i. whether the bidding is open (dynamic) or sealed, and

ii. whether successful bidders pay their own bids (discriminatory price) or the market-clearing price (uniform price).

Auctions can also involve a single round or multiple rounds. Open-bid auctions occur over multiple rounds. This lets bidders change their bids in response to information acquired after each round. In a single-round auction, no further interaction occurs after the bidder has submitted their bid, and the bidder awaits the auction outcome. As a result, sealed bids are more common with single rounds.

Description of options

We have identified four auction formats and these are set out in table 1 below.

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[18] This proposal is not considering directly auctioning other unit types, such as the direct auctioning of international units.

[19] The NZ ETS secondary market is where currently most NZUs are traded for immediate delivery. The secondary market includes both spot and forward trades. Where needed, we also raise the relevance of a forward market. Note that this market is substantially smaller in the NZ ETS.

Table 1: Auction formats

	Sealed-bid, single round	Open-bid, multiple rounds
Uniform pricing	A. Uniform-price, sealed-bid, single-round	C. Ascending clock
Discriminatory pricing	B. Discriminatory price sealed-bid single-round	D. Descending clock

In **sealed-bid, single-round auctions (options A and B)**, bidders submit their bid(s) simultaneously, with each bidder able to submit multiple bids. Each 'bid' consists of both the price and the quantity of units that are being sought in the auction. These are combined to create a stacked demand curve that ranks all bids from highest to lowest price. From this, the market clearing price is determined by working out the point at which the available supply of units intersects the stacked demand curve. Each successful bidder receives any quantity bid at prices at or above the clearing price. The difference between options A and B, **uniform and discriminatory pricing,** is that when using uniform pricing all bidders pay the same market clearing price, while when discriminatory pricing is used bidders pay the different prices they submitted for their successful bids.

In an **ascending clock auction (option C)**, a provisional price is announced and bidders indicate the quantity they would like to purchase at that price. If the quantity demanded exceeds supply, the price is increased in subsequent rounds until the total quantity demanded at the provisional price equals the quantity supplied. All winning bidders pay the same clearing price. Ascending clock auctions have been used for carbon markets where no secondary market prices have been available for bidders to take pricing information from. In these cases an ascending clock auction can play a valuable role in price discovery for the market.

A **descending clock auction** (option D) starts with a provisional price that falls in subsequent rounds by pre-determined increments. We do not assess the impacts of this auction format any further in this document because:

- this auction design is preferred when seeking to sell goods quickly at the highest price possible (usually perishable goods). This does not support the objective of efficiently allocating New Zealand's emissions budgets (ie, NZUs) to the market
- no other international ETS use a descending clock, so this would put the NZ ETS out of step internationally.

Impact analysis summary

The analysis for bidding format and pricing design has been separated for clarity. A summary of this analysis is set out in table 2 and table 3. The five criteria used for this analysis are based on the Government's overall objectives, and are described in detail in section 4. A full impact analysis of the bidding format and pricing type options is provided in Appendix 1 – Impact analysis for auctioning.

Preferred option for auctioning format

In summary, the Government proposes to use a **uniform-price**, **sealed-bid**, **single-round** auction format (option A). A sealed-bid, single-round format is less complex and has lower risk of collusion. Uniform pricing is preferred because discriminatory pricing could disadvantage small participants and impact on market efficiency.

Table 2: Options for bidding formats – summary of impacts

	Sealed-bid, single-round	Multiple round, open bid (ascending clock)
Complexity and cost	✓ Take less time to run More simple auction rules	x Require more complex auction rules Bidding decisions may be easier to make; however this benefit is less important in the presence of a well-functioning spot market
Consistency and proportionality	o	o The informational feedback is beneficial for small bidders; however this benefit is less important in the presence of well-functioning spot markets
Market efficiency	x	✓ Have better information gathering characteristics. This feature is important when the spot market is imperfect, and less so when it is well functioning
Integrity	✓ More resistant to collusion	x

Table 3: Options for pricing types for sealed-bid, single-round auctions – summary of impacts

	Uniform pricing	Discriminatory pricing
Complexity and cost	✓	x Requires more complex decisions around the bid strategy
Consistency and proportionality	✓	x Favours larger bidders due to the associated informational burden and their own influence on the clearing price
Market efficiency	✓	x Less efficient when information is asymmetric Although these auctions are not subject to demand reduction incentives, they tend to result in bids below true values
Integrity	✓ Can protect against hoarding	x
Clarity and transparency	o	o

Frequency: How often the Government holds auctions

Description of options

There are four options for auction frequency: weekly, monthly, quarterly or annually.

Impact analysis of frequency – summary

Auctions that are held frequently (weekly) may incur high transaction costs for participants relative to the auction volume available and impact the capacity of firms to participate in

them. Auctions held infrequently (annually) risk having a destabilising effect on the secondary market by releasing volumes that are too large, which could overwhelm the existing trading patterns.

Table 4 provides a summary of the impact analysis for auction frequency. This has been conducted on a scale between extremes, very frequently to infrequently. The full impact analysis of the frequency is provided in appendix 1.

Preferred option for auctioning frequency

The Government proposes to implement monthly or quarterly auctions. The volume of units available for auction impacts the decision on frequency. The Government proposes taking an approach that retains flexibility in relation to auction frequency. This would ensure the frequency of auctions can adapt to changing circumstances as appropriate while having regard to ensuring sufficient market certainty.

Neither of the extremes for auctioning frequency (weekly or annually) seem desirable. Therefore the options of weekly or annual auctions have been discounted.

The Government seeks feedback on auctioning frequency, including any impacts and preferences for weekly, monthly, quarterly or annual auctions. Table 4 summarises the impacts of auction frequency options with single round, sealed-bid auctions.

Table 4: Options for auction frequency with single round, sealed-bid auctions – summary of impacts

	Very frequent ◄	► Very infrequent
Complexity and cost	x Administrative costs increase with auction frequency Participation costs increase with auction frequency	✓
Consistency and proportionality	✓ More frequent auctions improve accessibility as they imply lower working capital requirements, but this may be less important in the presence of well-functioning spot markets	x
Market efficiency	x Very frequent auctions can be disruptive to existing secondary market trading activity	x Very infrequent auctions can increase price volatility if the market lacks liquidity. They can also have a destabilising effect on the secondary market by releasing volumes that are too large, overwhelming the existing trading patterns.
Integrity	x Very frequent auctions can increase the risk of price manipulation	x
Clarity and transparency	o	o

Participation: Who is able to participate in an auction

Description of options

The options considered are to allow auction participation for either:

A. All NZ ETR account holders[20]

B. NZ ETS participants (ie, only NZ ETR account holders with NZ ETS surrender obligations).

Option A is wider, as NZ ETR account holders include those who do not have direct NZ ETS obligations; for example, those that participate in the secondary market but do not have compliance obligations.

Note that additional criteria to be eligible to participate in auctions are likely to be required. These details will be consulted on in the development of technical regulations for auctioning.

Impact analysis of auction participation – summary

Table 5 provides a summary of the impact analysis for auction participation. The full impact analysis of participation options is provided in Appendix 1 – Impact analysis for auctioning.

Preferred option

The Government proposes to allow all NZ ETR account holders to participate in auctions. The broader participation enabled by this option will maximise the opportunities for competitive bidding. Table 5 gives a summary of impacts for options for auction participation.

Table 5: Options for auction participation – summary of impacts

	Only NZ ETR account holders (ie, wider option)	Only NZ ETS participants (ie, narrower option)
Complexity and cost	x	o Restricting participation of financial intermediaries would likely require complicated associated bidder rules
Consistency and proportionality	✓	x Restricting participation of financial intermediaries can affect the ability of smaller entities to access the NZ ETS
Market efficiency	✓ A larger number of auction participants is more likely to result in an efficient price	x Restricting participation of financial intermediaries can limit their role in supporting liquidity
Integrity	✓ A larger number of auction participants reduces the risk of collusion and manipulation	x
Clarity and transparency	o	o

[20] 'All NZ ETR' account holders include pre-1990 foresters, financial intermediaries and voluntary participants in addition to mandatory participants.

Use of proceeds from auctioning

The Government seeks feedback on whether or not the proceeds from auctioning should be earmarked for a specific purpose. If there is no decision to earmark auction proceeds for a specific purpose(s), the proceeds will be used across Government.

Some other emissions trading schemes specify that auctioning proceeds must be used towards specific climate change policies, such as supporting emissions reductions, or directed towards disadvantaged communities. Auction revenue may also allow the Government to reduce its level of taxation in other areas of the economy.

It is not common practice for the New Zealand Government to link revenue from a particular source directly to a specific spending programme. This practice has the unintentional consequence of diminishing the flexibility of budget decision-making (ie, making it difficult to allocate resources to the highest priorities).

Questions

3. Do you agree with the proposal to implement a single-round, sealed bid auction format with uniform pricing? If not, why not?
4. Do you think that auctioning frequency should be
   - weekly (not preferred)
   - monthly
   - quarterly
   - annually (not preferred).
5. Do you agree with the proposal that all NZ ETR account holders should be able to participate at auction? If not, why not?
6. Do you think that the Government should use the proceeds gained from the auctioning of NZUs for specific purposes? If so, please explain what those purposes would be.

2.4 Price ceiling

Summary of price ceiling proposals

- The Government proposes to replace the current price ceiling in the NZ ETS, the $25 fixed price option (FPO), with a different price ceiling called a cost containment reserve (CCR).
- A CCR is a type of price ceiling that is incorporated into an auction mechanism. The units held in the reserve are auctioned once the price ceiling is reached (trigger price). A CCR is proposed because it balances price risks for NZ ETS participants with fiscal risks for the Government.
- It is proposed that the CCR price ceiling is managed through the coordinated decision-making process. This would include setting the amount of units to be held in the CCR and the level of the price ceiling for each year. It is likely the initial level of the price ceiling for the CCR would be set at a value higher than $25 and increase over time (Note that the settings themselves will be consulted on at a later date).

- The Government seeks feedback on what happens if the CCR price ceiling is struck or other significant events occur (such as a decision to link the NZ ETS with another carbon market). This is because these situations could mean that previously determined price ceiling settings may no longer be appropriate.
- While the FPO will remain in place until at least 2020, the Government is aware that its $25 price level may not be appropriate throughout this period of time. Consequently, it is considering making adjustments to the FPO price level before 2020.
- The Government intends to keep prices in the NZ ETS in line with international emissions prices,[21] especially in the next three to five year period as the improvements outlined in this document are fully implemented.
- It is important that prices in the NZ ETS are reasonably predictable during this three to five year transition period. This is consistent with a just and fair transition.

Context

Price ceilings seek to limit the emissions price from rising above a certain price level. Price ceilings operate by providing more units to the market when a 'trigger' price is reached.

Price ceilings usually aim to limit unacceptably high prices in an ETS. They are usually set at a trigger price level well above the range of prices expected in an ETS under normal circumstances.

All emissions trading schemes currently include some price management features. These can include price ceilings, price floors, or measures that aim to reduce price volatility (significant and/or rapid price movements either up or down).

If the price ceiling is struck it can shift the cost of emissions reductions from participants to the government.

The price ceiling in the New Zealand Emissions Trading Scheme

Since 2009, the NZ ETS has had a price ceiling known as the 'Fixed Price Option' (FPO). The FPO allows NZ ETS participants to pay $25 per NZU to the government as an alternative to purchasing units from the NZ ETS market. This provides participants with a guaranteed maximum compliance cost. The FPO was introduced as a transition measure to moderate the cost of the NZ ETS while the scheme was being introduced and New Zealand was experiencing an economic downturn.

Participants can only use the FPO when they have a surrender (or repayment) obligation. The FPO does not create NZUs that can be traded in the market. However, it indirectly adds to the supply of NZUs in the market because its use means that other units will not be surrendered.

To date, the FPO has been used infrequently because the market price of NZUs has been below $25. It has occasionally been used by participants who needed to surrender a small number of units and who found it more convenient than sourcing units from the market. This type of use, while potentially beneficial, is not the intended purpose of the FPO. It is possible that the current FPO will be used on a larger scale in the future if the market price of NZUs reaches $25.

[21] Appendix 3 provides an illustrative example of international emissions prices.

Price floor

The Government does not have any plans to implement a price floor within the NZ ETS. In the 2015/16 NZ ETS Review there were a number of stakeholders that called for the consideration of a price floor within the NZ ETS. Many of these stakeholders cited the periods of low NZU prices seen in the past as the reason that some form of lower price control was needed in the NZ ETS.

While the Government agreed that the low prices had been a problem, it did not make an in-principle decision to implement a price floor. This was because the main driver of the previous low prices was the unlimited volume of units that NZ ETS participants had been able to buy from international markets in the past. Consequently, the Government decided that a volume limit on the use of international units would be the most effective way to address the root cause of these previous low prices, if a decision were made to re-open to international markets in the future.

In addition, there would be implementation challenges to implementing an effective price floor in the NZ ETS. "Hard" price floor options that would guarantee a minimum NZU price at all times are interventionist, administratively complex, with potentially significant negative fiscal impacts. "Soft" price floor options tend to be easier to implement (e.g. an auction reserve price that withholds NZUs from the market unless a certain sale price is reached) but they may not always be very effective at influencing the market price.

Issue

The Government intends to maintain a price ceiling in the NZ ETS. If there was no price ceiling and NZU prices reach an unacceptably high level, there could be strong pressure on the Government to make ad hoc interventions in the market. Ad hoc interventions could damage the credibility and integrity of the scheme, and have a negative impact on regulatory predictability.

Over the long term, the Government is proposing to replace the FPO with a different type of price ceiling, which would be implemented as part of an auctioning platform. The new type of new price ceiling aims to address issues with the current FPO outlined below.

There are several problems with the current price ceiling (the FPO).

- **The $25 price level may be too low** – $25 is lower than the potential cost of emissions reductions in the future, domestically and internationally.
- **The FPO price level is static at $25** – it is expected that emissions prices will need to increase over time if New Zealand is to achieve its increasingly ambitious emissions reduction goals. The level is also not adjusted for inflation.
- **There is a high risk that participants will use the FPO extensively in the 2020s** – this could cause the supply of units in the NZ ETS to exceed the emissions budget for the 2030 target. This would shift the responsibility and cost for reducing emissions, and meeting emissions reduction targets, from emitters on to the Government.
- **The FPO is not volume-limited** – this undermines the market character and efficiency of the NZ ETS (in effect, if struck, it turns the NZ ETS into a $25 per tonne CO_2-e tax). It also means the scheme cannot guarantee a certain level of emissions reductions, making the NZ ETS less compatible for linking to other carbon markets.

It will not be possible to implement the new type of price ceiling until at least 2020 and therefore the current FPO will be retained over this period. While the FPO will be retained, the Government is aware that the existing $25 price level might not be appropriate over this transition period and is therefore considering making changes to the FPO price level in advance of 2020.

The Government is committed to ensuring that emissions prices in New Zealand remain in line with international emissions prices.[22] This is because the NZ ETS needs to deliver a stable, predictable price to support a just and fair transition.

Options

The Government has identified three key issues that need to be addressed when considering a replacement for the FPO.

i. **Price ceiling type** – how the price ceiling operates in practice. The options include:
   - a continuation of the existing volume-unlimited FPO
   - a volume-limited auction CCR.

ii. **Managing the price ceiling over time** – how the level of the price ceiling and other variables should be managed over time, as part of the process for coordinating decisions about unit supply over a five-year rolling period. Possible approaches include using a formula to calculate these levels, or allowing discretion. The 2015/16 NZ ETS review identified emissions prices higher than $25 may be needed in the future and so regardless of the price ceiling type that is chosen, it is likely that the trigger price for them will be set higher than $25.

iii. **Dealing with special circumstances** – how the decision-maker can respond if, for example, the price ceiling is struck, or a decision is taken to link the NZ ETS to another carbon market.

Price ceiling type relates to ensuring the NZ ETS can meet its high-level objectives, while the latter two parts are more operational.

Price ceiling type

Options for the price ceiling type have been previously analysed in the *Regulatory Impact Statement: Improvements to the NZ ETS framework for unit supply* (unit supply RIS).[23] The unit supply RIS determined that a volume-limited price ceiling (such as a CCR) would give the Government the most control for managing the risk of emissions costs shifting to the Crown, and improving linking compatibility, but did not recommend a preferred option. Further analysis on volume-limited or volume-unlimited price ceilings is presented below. This builds on the unit supply RIS.

This document considers two options for price ceiling type.

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[22] Appendix 3 provides an illustrative example of international emissions prices.

[23] See www.mfe.govt.nz/more/cabinet-papers-and-related-material-search/regulatory-impact-statements/regulatory-impact-17.

i. A volume-unlimited fixed price option, set at a higher price than $25

This option would operate in the same way as the current FPO, but the trigger price would be set at a level above $25 and would increase over time. Under this option the NZ ETS legislation would need updating to increase the price and allow it to increase further over time.

ii. A volume-limited auction cost containment reserve, set higher than $25

This type of price ceiling is possible through the introduction of auctions. The Government would set aside a number of NZUs (the reserve) to be sold only if a specified trigger price is reached. The trigger price would also be set at a level above $25 and would increase over time.

NZUs from the reserve could either be sold at the next scheduled auction or at an additional auction held specifically to distribute the reserve volume. This would put downward pressure on the NZU price.

The reserve volume could either come from within the emissions budget (ie, a portion of the emissions budget is set aside), or come from outside of the budget (requiring government to secure this volume of emissions reductions).

A CCR would be a 'softer' price ceiling compared to a fixed price option-style ceiling as it would not guarantee a maximum compliance cost per unit for participants. How much influence it would have on the price of units depends on the amount of units in the reserve. The amount of units held in the reserve could be adjusted over time.

A CCR would also provide the ability to provide 'tranches' of unit supply at different price levels. For example, a moderate price rise might be set to trigger a smaller volume of additional auction volume supply, but a higher price trigger much larger additional auction volumes. These types of settings would provide a graduated protection against rising emissions prices.

It may be possible to establish a CCR so that only NZ ETS participants with current surrender obligations could access the volume held in the CCR. This would make the operation of the CCR more similar to the existing FPO. However, this would be complicated to setup and could disrupt the efficient operation of the auctions. In addition, it may not prevent other NZ ETS market participants from accessing the CCR volume as NZ ETS participants with current surrender obligations could bid for CCR volume on behalf of other firms. Table 6 sets out the different type of volume-limited price ceilings that operate in other emission trading schemes.

Table 6: Volume-limited unit reserves for price management in other emission trading schemes

Jurisdiction	Details
California California's cap-and-trade scheme is linked with Quebec's through the Western Climate Initiative.	• *Type of measure:* volume-limited price ceiling, with features of both a cost containment reserve and a fixed price option (once a certain price at auction is reached, a limited amount of units are available for purchase at fixed prices). • *Trigger prices:* allowances can be sold from the reserve at three price tiers, which in 2017 were USD 50.69, 57.04, and 63.37. Tier prices increase annually by 5 per cent plus inflation (as measured by the Consumer Price Index). • *Reserve volume:* set at 1 per cent of the cap over 2013–14, 4 per cent in 2015–17, and 7 per cent in 2018–20. • The operation of price measures in California's scheme post-2020 is currently under consideration.
Regional greenhouse gas initiative	• *Type of measure:* cost containment reserve price ceiling.

Jurisdiction	Details
An emissions trading scheme covering the electricity sector in 10 north-eastern states of the USA.	• *Trigger prices:* USD 10 for 2017, increasing by 2.5 per cent per year through to 2020. From 2021 the trigger price will be USD 13.00, increasing 7 per cent per year thereafter. • *Reserve volume:* 10 million allowances each year until 2020. From 2021, the volume will be set at 10 per cent of the cap each year.
European Union Emissions Trading System (EU ETS)	• *Type of measure:* a unit reserve aimed at preventing excessive price volatility. • *Trigger price:* for more than six consecutive months, the European Emission Allowance price is more than three times the average price during the two preceding years. In this case, the European Commission shall immediately convene a meeting of the Climate Change Committee, which comprises representatives from all 28 member states. If the price rise is determined not to correspond to changing market fundamentals, one of two possible measures may be adopted, taking into account 'the degree of price evolution'. • *Reserve volume:* two options are available: – member states may bring forward sales of allowances from the EU ETS annual auction volume (ie, from within the existing cap) – member states may auction up to 25 per cent of allowances remaining in the EU ETS New Entrants Reserve. As of early 2018, this reserve contained around 336 million allowances.

Impact analysis

The main difference between the two options is the level of control they give a decision-maker over the volume of additional unit supply released when the price ceiling is struck:

- with a volume-unlimited fixed price option, supply is only limited by participants' demand (although capital may constrain participants from using it)
- with a volume-limited CCR, supply is restricted to the volume that is set aside in the reserve.

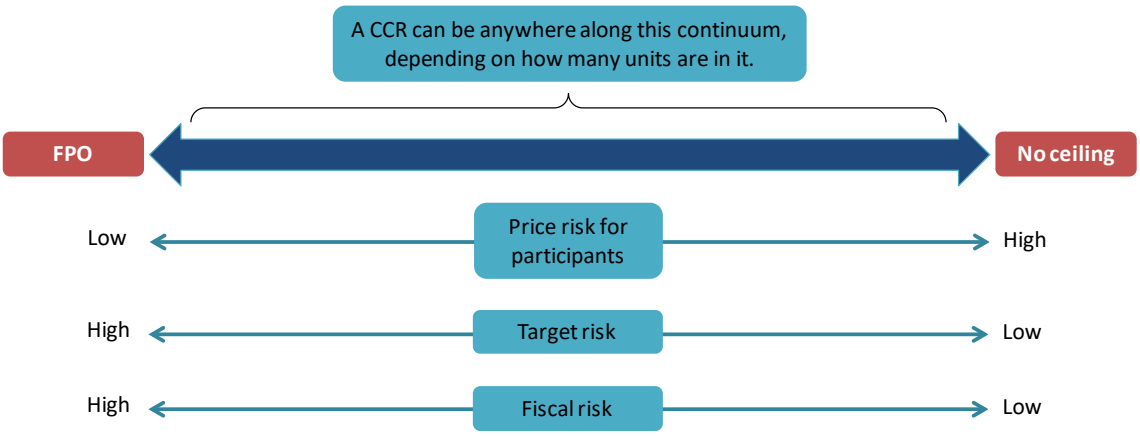
The options have trade-offs between (figure 3):

- price risk for participants – ie, the amount of certainty provided about maximum compliance costs
- target risk for the government – the fewer volume limitations put in place through the price ceiling, the more risk the government faces of not achieving its climate change targets
- fiscal risks for the government – these include both the short-term impacts on the Crown's accounts from the price ceiling indirectly increasing unit supply in the market, and longer-term risks related to the potential need to buy emissions reductions at higher prices.

The appropriate balance of risks for the government versus participants is the critical issue for the price ceiling type. However, it should be noted that if the reserve contained a large amount of units, it is likely a CCR could achieve similar price outcomes to a fixed price option.

A CCR offers greater flexibility to the government, through adjusting both the volume and the price trigger level, as circumstances change.

Figure 3: Price ceiling option trade-offs



Note: CCR = cost containment reserve; FPO = fixed price option.

Another consideration is the impacts the options have on the market operation of the NZ ETS, and the scheme's compatibility for linking to other carbon markets. On both these counts, the CCR option, which is more similar to price measures present in other emission trading schemes, performs better than the fixed price option. Table 7 summarises the comparison of these options, using the Government's objectives for unit supply (see section 4).

Table 7: Summary of impact assessment of price ceiling options compared with the status quo

Options	Alignment with targets	Improve regulatory certainty and predictability	Consistent with broader NZ ETS design
Description of status quo: $25 FPO maintained	High risk of overshooting the carbon budget/or target, with cost shifting to the Government	A measure intended to be temporary is still in place with no clear end date	Price increases could cause the $25 FPO to set the price rather than the market; current design is a barrier to carbon market linking
1. Volume-unlimited FPO at higher price	✓	✓	✓
2. Volume-limited CCR at higher price	✓✓	✓	✓✓

Preferred option

A volume-limited CCR incorporated into the auction mechanism is preferred (option 2). This is because it provides for better management of the trade-offs between price risks for NZ ETS participants and fiscal and target risks for the Government.

A CCR is unlikely to be able to be implemented until at least 2020, which means there will be a transition window for the market up until that point. Over this period the FPO will remain in place, however the Government is considering making changes to the FPO price level before 2020. Any FPO price level changes will ensure that emissions prices in New Zealand remain in

line with international prices.[24] The Government is interested in hearing stakeholder views about the potential for this type of change.

Managing the price ceiling over time

The Government proposes to implement a process for managing NZ ETS unit supply volumes over a five-year rolling period as part of the coordinated decision-making process. How the alternative price ceiling should be managed as part of this process needs to be decided. For the preferred CCR price ceiling, this would involve setting the price trigger and volume of units held in the reserve.

Provision may also need to be made in the price ceiling rules for adjustments or responses outside of the normal process. This relates to when special circumstances occur, such as the price ceiling being struck, or a link being established to another carbon market.

The choices for managing the price ceiling over time are focused on finding the right balance of flexibility. The options below represent the different ends of this spectrum, although both approaches could be combined:

i. the decision-maker has discretion to determine the settings (this could be strengthened by including certain factors that must be considered when making changes)

ii. a formulae-based approach that is used to calculate the price ceiling each year.

i. The decision-maker has discretion to determine the settings (option 1)

This option would provide the decision-maker with flexibility to manage the price ceiling over time in line with its priorities or changing circumstances. This could be strengthened by including factors that must be considered in the decision-making process. These factors could include:

- forecasts of the abatement required for New Zealand to meet its emissions reduction targets
- modelling of New Zealand's domestic abatement costs
- forecasts of international carbon prices and rules on use of international units in the NZ ETS
- inflation rates
- recommendations from an independent body such as the proposed Climate Change Commission.

These are examples only, and the Government seeks views on this approach and any factors that the decision-maker should consider if this option were implemented.

ii. Settings are determined by mandated formulae (option 2)

This option would mean the price trigger and unit volumes in the CCR would be set through a calculation clearly outlined either in the NZ ETS legislation or in regulations.

Any change to the underlying formula used to calculate the settings could only be made through changes to legislation or regulations, including consultation requirements.

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[24] Appendix 3 provides an illustrative example of international emissions prices.

Examples of such formulae for settings in a given year could be:

- for the trigger price:
  - trigger price = forecast emissions price + a set dollar amount (eg, $20 or $30)
  - trigger price = the previous year's trigger price + inflation + a specific increase (eg, an increment of $5 or $10, or of x per cent each year)
- for the unit volume in the reserve:
  - volume of units in the reserve = 5 per cent or 10 per cent of overall cap volume
  - volume of units in the reserve = x million units.

These are examples only. The Government seeks feedback on this approach and how the price ceiling settings should be calculated.

Impact analysis

For both options, we propose the five-year rolling process for deciding and announcing NZ ETS unit supply settings be applied. This means with both approaches the price trigger and reserve volume would be set for five years in advance, and extended each year.

Where the options may differ is the level of flexibility and transparency for how decisions are made.

Option 1 may give less transparency and predictability around how the price ceiling level and volumes are chosen. This could be mitigated by requiring the decision-maker to explain how the settings were determined.

Option 2 requires having confidence, when determining the formulae, in knowing which factors will influence emissions prices in future. If this is not the case, then there is a risk the formula could require revision, which would undermine the intent of providing more predictability. It may be possible to mitigate this risk by combining option 2 with elements from option 1.

Preferred option

The Government does not have a preferred option at this stage and seeks views on these approaches.

Under any management option the price will likely be set at a level above what is expected in the normal operation of the NZ ETS market. Officials are developing evidence about domestic abatement costs to support decision making about the appropriate price trigger level and volume of units in a CCR price ceiling. This is expected in early 2019 and will inform consultation on regulations for setting the level of the price ceiling.

Dealing with special circumstances

The Government is considering whether and how the price ceiling could be managed in special circumstances. In these cases it might be beneficial to allow for changes outside of the normal five-year decision-making process to manage risks and take advantage of opportunities.

Two examples of special circumstances are listed below.

i. The price ceiling is struck, and/or prices continue to rise above price trigger level

The NZ ETS price ceiling should be regarded as a safeguard, and set above the range of expected prices. If the price ceiling is struck this may be a signal that the market is not operating as intended. Therefore, it may be useful to have a process for evaluating why the price ceiling has been struck and what action should be taken to rectify any problems that are identified.

The action taken in response to the price ceiling being struck would depend on the cause of high prices, but could include actions such as:

- increasing the price ceiling trigger level, if it was set on a too low or erroneous basis
- increasing the limit on international units, if high domestic abatement costs are the cause of the excessively high prices
- undertaking a fuller system review, if the high prices are seen as a sign of wider market dysfunction
- government buying international units to compensate for additional units added to the market through the price ceiling
- adjusting the overall cap.

ii. Linking to other carbon markets

If the NZ ETS were to link to carbon markets in other jurisdictions, price measures including the NZ ETS price ceiling would need to be considered. If the link is two-way with another ETS, a high degree of harmonisation of price measures would likely be necessary.

Links with other carbon markets may deliver benefits for managing New Zealand's costs and enhancing global climate action. Therefore, the opportunity to link with other markets may be a situation that warrants giving the Government the ability to make changes to the price ceiling outside of the normal process.

Preferred option

The Government seeks feedback on whether you agree these situations warrant allowing changes to price ceiling settings outside of the normal five-year decision-making process.

Questions

7. Do you agree with the proposal to replace the $25 fixed priced option with a cost containment reserve price ceiling implemented through the auctioning mechanism? If not, why not?
8. How do you think the price level and number of units in the cost containment reserve should be managed over time? (Note: specific settings will be consulted on later). Select all that apply.
   - decision-maker has discretion to determine the settings while having regard to certain factors (please explain)
   - settings are determined by mandated formulae (please explain)
   - other (please explain).
9. What actions should occur if the price ceiling is struck?
   - increase the price ceiling trigger level, if it was set on a too low or erroneous basis

Questions

- increase the limit on international units, if high domestic abatement costs are the cause of the excessively high prices
- undertake a fuller system review, if the high prices are seen as a sign of wider market dysfunction
- government buying international units to compensate for additional units added to the market through the price ceiling
- adjust the overall cap
- other (please explain).

10. Do you agree with the proposal to review the price ceiling if another significant event occurs (such as a decision to link the NZ ETS with another carbon market)?
11. Do you agree that the $25 FPO may not be appropriate for the short term, and may need to be adjusted before 2020? Please explain.

2.5 Limiting the use of international units

Summary of international unit limit proposals

- The Government will limit the number of international units NZ ETS participants can use should the scheme be reopened to international carbon markets. This is an important component of a cap on emissions.
- Any international units used would be required to meet high standards of environmental integrity.
- In the future, there are two modes through which international units could be made available to NZ ETS participants. (Note the Government already has powers in the NZ ETS legislation to enable and limit both modes). This could occur:
  - **directly**, through market participants purchasing, trading and surrendering international units themselves
  - **indirectly**, via the Government purchasing international emission reductions and auctioning NZUs.
- The Government seeks feedback on what impacts the different modes might have on participants and the NZ ETS market.
- The Government seeks feedback on whether different types of participant should have different quantitative limits, if they are able to access international units directly.
- The Government proposes the limit on international units in the NZ ETS is managed through the coordinated decision-making process. This would involve an annual announcement of the limit for the following five years.

Context

A new context for international units

The Government is committed to ambitious domestic action to reduce emissions. This domestic action could be supplemented by purchasing emissions reductions that have been achieved in other countries. The Government has signalled that international carbon markets may be used after 2020 if:

- the units are genuine and have environmental integrity
- progress towards a net zero target is maintained
- it makes economic sense to do so
- it can be done in a way that maintains incentives for domestic abatement.

Decisions on New Zealand's pathway to net zero emissions will influence the extent to which New Zealand may use international units towards meeting its climate change targets.

If the NZ ETS is reopened to international carbon markets, access for participants will be different from under the Kyoto Protocol. In the past the NZ ETS was uncapped and participants were able to purchase unlimited volumes of Kyoto Protocol units.

The Paris Agreement changes the context within which international carbon markets operate. Any trade of emissions reductions that may be used towards countries' targets must be authorised by the countries involved. International units may come from either bilateral or regional arrangements, or from a central United Nations mechanism.

Quantitative and qualitative limits on international units

The Government will limit the number of international units that participants can use in the NZ ETS. This is an important part of a cap on emissions. In addition, participants will only be allowed to use international units that have been authorised by Government and which have met environmental integrity standards.

The Government has broad powers to enable and limit the use of international units in the NZ ETS through regulations. This section discusses how these existing powers could be used to implement the Government's decision to quantitatively limit participants' use of international units.

Issue

In July 2017 the Government made an in-principle decision to limit participants' use of international units when the NZ ETS reopens to international carbon markets. The Government is considering how to implement a quantitative limit. This can be broken down into the following:

- the mode of purchase – how a limited volume of international units could be made available to NZ ETS participants
- how the surrender rights for the total volume of international units could be distributed to NZ ETS participants, if NZ ETS participants are allowed to surrender international units themselves.

In both modes of purchase, international unit supply would be managed through the five-year coordinated decision-making process in a well-signalled and transparent manner (see section 2.2).

Options

Mode of purchase of international units

There are two feasible options for the mode of purchase of international units.

i. **Directly** – market participants purchase, trade, and surrender international units themselves. A volume limit could be imposed either at the point of import or surrender.

ii. **Indirectly** – the government purchases international emissions reductions and auctions an equivalent volume of NZUs into the scheme. A volume limit would be imposed by managing government purchase and subsequent auction volumes.

In practice, these options could operate alongside each other. This would be managed through the coordinated decision-making process.

Impacts

Key differences between these options are the types of units that would be available within the domestic NZ ETS market, and who has to face the complexity and price risk of dealing with international markets.

Under the indirect option, the government would have to manage the price, volume and portfolio risks associated with purchasing international units. This might reduce costs for participants, and be simpler as only NZUs would be in circulation within the scheme.

In contrast, direct participant trading may allow opportunities for businesses but would place much of the complexity of dealing with international carbon markets on NZ ETS participants.

Enacting a limit would be straightforward with an indirect mode of purchase. This is because the government would purchase and auction its chosen volume of units.

The limit for a direct mode of purchase could be at either the point of import or surrender. Where the limit sits may be impacted by operational considerations and market impacts, as well as the Paris Agreement accounting rules (which are currently under negotiation).

Proposal

Decisions on the mode of purchase will depend on a number of factors that are currently unknown. These include:

- the options New Zealand has available for accessing international markets (which may change over time)
- the rules for how to account for the use of international markets under the Paris Agreement (expected to be determined at the end of 2018).

The Government proposes that the limit on international units in the NZ ETS is managed through the coordinated decision-making process. This will involve an annual announcement of the limit for the next five years.

The Government already has powers to enable and limit both the direct and indirect modes of purchase. This gives flexibility to respond to evolving international carbon markets. Acknowledging there are significant factors that will influence final decisions, the Government seeks feedback on what impacts the different modes might have on participants and the NZ ETS market.

How will the overall volume of international unit surrender rights allowed be distributed between NZ ETS participants?

In the event of direct purchasing by NZ ETS participants, the government will need to decide which participants can access international units, and how much they can use towards surrender obligations.

The Government proposes implementing a limit as a percentage of surrender obligations. This would allow the limit to scale with the size of participants' surrender obligations. It would also reduce the risk that firms could make windfall profits from their purchase of international units. A percentage limit would mean that firms would, at the margin, need to purchase a mixture of domestic and international units. In a competitive market, firms should then pass on a mixture of both prices to consumers.

The Government is also considering whether different types of participants should have different percentage limits applied to them. The risk of unintended consequences and windfall profits may be particularly high for firms that may be able to surrender international units while also receiving NZUs from government. Types of participants this could apply to include are:

- firms that receive industrial allocation of NZUs. If they are able to use international units at cheaper prices than allocated NZUs this could create windfall profits unrelated to emissions reduction efforts[25]
- forestry participants who receive NZUs. If they are able to use international units at cheaper prices than NZUs this could create windfall profits unrelated to emissions removal efforts. In addition it may also make unit flows from this sector, and in the overall market, less predictable.

The Government seeks feedback on how the overall volume of international unit surrender rights should be distributed between NZ ETS participants, and what should be taken into account when making this decision.

Questions

12. Which mode of purchase for international units (direct or indirect) would be the best approach for the NZ ETS, acknowledging that there are other significant factors that will influence this decision? Please explain.

13. If NZ ETS participants are able to purchase and surrender international units directly, do you think that there is justification for varying the percentage of allowable international units by participant type? If not, why not?

[25] This issue is complex because many firms that receive industrial allocation do not have surrender obligations.

2.6 A phase-down of industrial allocation

Summary of industrial allocation phase-down proposals

- The Government seeks feedback on how decisions to phase-down industrial allocation should be made. Over time, more units will be provided through industrial allocation than necessary to mitigate the risk of emission leakage, and this will put pressure on New Zealand's emissions budgets.
- The Government seeks feedback on how decisions on a phase-down of industrial allocation should be made. Options we seek feedback on include:
  - set a test or condition that would trigger a phase-down during 2021-2030
  - establish a decision-making process to determine industrial allocation rates over time
  - an upfront decision to start phasing down industrial allocation from 2021.
- The Government seeks feedback of the impact of reducing industrial allocation in the range of 1–3 per cent per year on firms and the market.

Context

The purpose of industrial allocation – avoiding emissions leakage

Industrial allocation is the free allocation of New Zealand emission units (NZUs) to firms that carry out eligible industrial activities. The purpose of industrial allocation is to mitigate the risk of emissions leakage. Emissions leakage would occur if the cost of ETS obligations in New Zealand means that the activity is unable to compete with a similar activity offshore, which has no similar costs from carbon pricing or other climate policies.

Emissions leakage is an environmental integrity issue. Leakage would indicate our policy is driving the export of emissions rather than reducing them. There would be a risk of increasing global emissions if the same products are sourced from more emission-intensive suppliers. If emissions leakage occurred, it may also have significant economic and social impacts. This is particularly the case for regions where a single emission-intensive facility may be important for the local economy.

Industrial allocation is only intended to mitigate competitiveness impacts due to the carbon price. Emission-intensive economic activities can lose market share or close down for a number of other reasons. Such reasons include costs that are unrelated to the NZ ETS, and competition from lower-emissions products.

Industrial allocation in the New Zealand Emissions Trading Scheme

There are 26 activities eligible for industrial allocation, because they are both emission-intensive and trade-exposed (EITE). Ten are highly emissions-intensive and receive a level of assistance of 0.9 (ie, 90 per cent of their exposure to NZ ETS costs).[26] Sixteen other activities are moderately emissions-intensive and receive a level of assistance of 0.6.

[26] These activities include some very large emitters, in particular, steel, aluminium and methanol production. Nearly 95 per cent of the units allocated each year go to highly emissions intensive industries.

The age of the data used for calculating industrial allocation levels is important context for decisions about industrial allocation. Over time, firms will tend to improve their emissions intensity and productivity. The allocation level for most activities in the NZ ETS use data from 2006–2008. This means on average the underlying data will be 14 years old in 2021, and 23 years old in 2030.

NZ ETS legislation includes a phase-out of industrial allocation, but this is currently on hold. The Government can decide (through an Order in Council) to start a phase-down of 0.01 per year at any time after 2019.[27] If applied, this would mean that allocations for moderately emission-intensive activities reach zero after 60 years, and highly emission-intensive activities after 90 years.

The NZ ETS legislation will need to be amended if a decision is made on a different phase-down rate or approach.

Industrial allocation is different to agricultural allocation

If agriculture comes into the NZ ETS, free allocation for agriculture would be set on a different basis. Decisions on industrial allocation, including any decision to phase it down, are not relevant for agriculture.

Issue

The NZ ETS review identified the following issues with industrial allocation in the NZ ETS:

- a lack of clarity on the timing of a phase-out is a source of regulatory uncertainty
- industrial allocation has both direct cost and opportunity costs for the Government
- as carbon pricing coverage spreads globally, industrial allocation levels are increasingly likely to be more generous than necessary to protect against emissions leakage
- as emissions intensity improves, it is increasingly likely that the value of allocation will exceed the activity's real exposure to NZ ETS costs (referred to as over-allocation)
- current levels of allocation will use up an increasing share of New Zealand's carbon budget and will put pressure on future carbon budgets.

These issues are explained further in Appendix 2 – Additional context for industrial allocation.

Objectives

Table 8 outlines the objectives that have been defined for considering changes to industrial allocation. These objectives draw on the objectives and criteria used for NZ ETS unit supply, as given in section 4.

[27] See section 85A of the Climate Change Response Act 2002. Full obligations will be in place from 2019 as the one-for-two surrender obligation will be fully phased out by then.

Table 8: Objectives for industrial allocation, with relationship to identified problems and unit supply objectives

NZ ETS review unit supply objectives	Improve regulatory certainty and predictability	Alignment with 2030 target and progression of future targets	Consistent with broader NZ ETS design policy intent
Problems with industrial allocation status quo	Unclear phase out start date	Increasing risk of unsustainable allocation levels, given progressively more ambitious emissions reduction targets and tighter emissions budgets	Increasing risk of unnecessarily high allocation levels to achieve industrial allocation's policy intent of mitigating emissions leakage risk
Objectives for industrial allocation	Reduce regulatory uncertainty	Reduce pressure on emissions budget and over-allocation risk, and allow for provision of units to other participants	Minimise emissions leakage risk Minimise administrative burden and complexity

Options: How decisions on phasing down industrial allocation should be made

There are three broad approaches for making decisions on phasing down industrial allocation.

1. Make an up-front decision to start a phase-down from 2021

This option would begin a phase-down of industrial allocation at a specific rate from 2021. The rate would be set in the NZ ETS legislation and would apply to all industrial allocation activities.

2. Set a test or condition that would begin a phase-down

This option would use a test or condition to determine when the risk of emissions leakage has diminished. A phase-down of industrial allocation would only start when the test has been met. This approach could lead to differentiation in the start date for phase-down, and the rate of phase-down, between different industrial allocation activity types.

3. Establish a decision-making process for determining allocation rates over time

This option would establish a process to make decisions on industrial allocation rates through regulations. For example, analysis by officials or the Climate Change Commission could inform decisions to change allocation rates. This would be included in the coordinated decision-making process (see section 2.2). This approach could also lead to differentiation in the start date for phase-down, and the rate of phase-down, between different industrial allocation activity types.

Impacts

This section provides a summary of the impact analysis for how decisions on phasing out industrial allocation are made. A summary of this analysis is set out in table 9.

An up-front decision (option 1) would reduce regulatory uncertainty but may increase the risk of emissions leakage, depending on the chosen phase-down rate.

A test or condition (option 2) was suggested by a number of submitters in the NZ ETS review. There are practical difficulties in developing an accurate and workable test. For example, a test could require a detailed understanding of international emissions pricing (including

associated allocation or exemption policies) and product-specific competitiveness for each of the 26 activities that currently receives industrial allocation. This test could also incorporate information about the availability of low-emissions technology for each of these activities. Once developed, the test would need to be applied regularly and different activities would likely start their industrial allocation phase-down at different points in time. It is also possible that these tests could be used to specify the phase-down rate most suitable for each activity. This option may not reduce regulatory uncertainty because these tests would be complicated to administer and it would remain unclear when the phase-down would start.

Establishing a decision-making process (option 3) may also not reduce regulatory uncertainty in the short-term. In the long-term, it could provide the basis for robust decision-making, if time is taken to develop and resource the analysis required. It will be important to specify the basis of decision-making carefully in legislation. This could take into account other factors, including the risk of leakage, international obligations, the availability of low-emissions technology and carbon budgets. This decision-making approach might also produce differentiated start dates and phase-down rates between NZ ETS activities. Table 9 gives an impact summary of approaches to start a phase-down for 2021–2030.

Table 9: Impact summary of approaches to start a phase-down for 2021–2030

Options	Reduce regulatory uncertainty	Reduce emissions budget and over-allocation risk	Minimise emissions leakage risk	Minimise complexity
1. Up-front decision	✓✓	✓to ✓✓ depending on rate	o to **xx** depending on rate	✓
2. Set a test	o	Cannot be quantified as start date remains unclear	o	**xx**
3. Establish a process	o	Cannot be quantified	o to ✓	**xx**

Preferred option

The Government does not have a preferred option at this stage, and is seeking feedback on all three of these possible approaches.

Options: the impact of different phase-down rates

If an up-front decision is made to start a phase-down of industrial allocation in 2021, the Government seeks feedback on the impacts of phasing out industrial allocation at a rate of between 1–3 per cent[28] per year. This range has been identified because:

- a phase-down rate of 1 per cent is currently provided in the NZ ETS legislation and was originally expected to begin in 2010.

[28] The NZ ETS legislation uses '0.01' to describe a phase-down rate of 1 per cent. This is to ensure that phase-downs occur linearly. From a pure mathematical perspective, reducing an initial industrial allocation rate of 90 per cent by 1 per cent of its initial value every year would mean that the industrial allocation rate would never reach zero. However, the legislation intends that an annual reduction of 0.01 would (for example) reduce an initial assistance level of 0.9 to zero over 90 years. This document describes both the initial assistance rates and the phase-down rates as percentages for ease of communication.

- a rate of 3 per cent beginning in 2021 would be a predictable approach and would reduce industrial allocation to zero after 30 years (ie, by 2050), so would be consistent with meeting long-term emissions reduction goals.
- phase-down rates above 3 per cent per annum have not been considered. Higher rates would be difficult to justify in the short-term, taking into account that:
  - coverage of carbon pricing and other climate policies remains relatively limited globally (although it is increasing)
  - a range of 1–3 per cent reduction per annum is consistent with industrial allocation reductions planned or under consideration in other jurisdictions.

Phasing-down industrial allocation at a rate less than 3 per cent, or beginning a phase-down after 2021, is likely to mean a more rapid phase-down will be required in future. This is because of the increased pressure industrial allocation will put on emissions budgets over time.

Impacts

Decisions on a phase-down rate involve trade-offs between minimising emissions leakage risk, relieving pressure on the carbon budget and minimising costs to the Crown.

Impacts on emissions leakage risk

Assessing the risk of emissions leakage is difficult. This is because it requires understanding of both international emissions pricing and product-specific competitiveness. Table 10 provides estimates of the scale of potential increases to net NZ ETS costs for recipients at different phase-down rates. These are only a rough proxy for costs in the future as emissions prices and revenues for EITE sectors are likely to vary significantly over time.[29]

Increasing the rate of phase-down will increase NZ ETS cost exposure for industrial allocation recipients (Table 10). A phase-down rate of 3 per cent could have a material effect on the profitability of these firms. However, this analysis does not include the impact of any emissions intensity improvements that occur from 2006 to 2030, which would reduce the cost impact.

Table 10: Impacts over 2021–2030 of phase-down options on net NZ ETS cost for the most emissions intensive sectors.

Phase-down rate options	Net NZ ETS cost for most emissions intensive sectors[30]
1 per cent (low)	Around 1 per cent per cent of revenue
3 per cent (consistent with long-term)	Around 4–5 per cent of revenue

[29] These estimates are based on status quo NZ ETS settings and on historic revenue and emissions data for the largest and most emissions intensive sectors among industrial allocation recipients. They also assume an emission unit price of $25.

[30] At the current ceiling price for NZUs of $25, and based on historic revenues and emissions from the base period (2006–09) which was used to set the current allocation baselines.

Impacts on carbon budget

A higher rate of phase-down means that more volume will be available for auctioning to all NZ ETS participants. Table 11 forecasts the impacts of different rates of phase-down on industrial allocation and auction volumes over 2021–30. The difference between a phase-down rate of 1 per cent and 3 per cent is an additional 19 million units available for auctioning over 2021–2030.

Table 11: Impacts of phase-down rates on assistance levels and volumes[31]

	Reduction in assistance by 2030, per cent		Forecast total industrial allocation volume 2021–30	Forecast available auction volume 2021–30
Phase-down rate options	**Highly EITE**	**Moderately EITE**		
Status quo description	–	–	143 million	44 million
1 per cent (low)	11	17	134 million (a reduction of 9 million units, or 7 per cent)	54 million
3 per cent (consistent with long-term)	33	50	115 million (a reduction of 28 million units, or 20 per cent)	73 million

Preferred option

The Government does not have a preferred option for a phase-down rate. The Government seeks feedback on the impact of different rates on firms and the market. The Government also seeks views on the appropriate balance between minimising emissions leakage risk, relieving pressure on the carbon budget and minimising costs to the Crown.

Questions

14. How do you think decisions on a phase-down of industrial allocation should be made? Select all that apply.
    - make an up-front decision to phase-down industrial allocation from 2021
    - set a test or condition that would trigger a phase-down
    - establish a decision-making process to determine industrial allocation rates over time
    - other process (please explain).

15. If a decision-making process for industrial allocation is implemented, which of the following factors should the decision-maker taken into account? (Select all that apply).
    - New Zealand's emission budgets
    - the risk of emission leakage, with the aim of avoiding leakage driven by differential emission pricing policies, and based on economic analysis of the markets for EITE activities and their products
    - other sources of supply into the NZ ETS

[31] Figures are rounded to nearest whole numbers.

Questions

- the availability of low-emissions technologies
- New Zealand's international obligations
- other (please explain).

16. If a phase-down is initiated in future, which of the following rates for phasing-down industrial allocation should be considered?
    - 0.01 per year
    - 0.02 per year
    - 0.03 per year
    - Other (please explain).
17. What impact would changes to the levels of industrial allocation from 2021 have on your investment or business decisions?

3 Operational issues

3.1 Overview

This section contains proposals that deal with operational issues, such as how participants engage with the scheme. These proposals cover four areas: market governance; market information, compliance and penalties; and technical and operational improvements.

Note that a separate discussion document sets out operational proposals that specifically relate to forestry.

3.2 Market governance

Summary of market governance proposals

- The NZ ETS will operate more effectively when market participants are both adequately informed and protected when they trade NZUs.
- The Government seeks feedback on both existing and potential future risks that the existing market governance regime may expose participants to.

Context

Market governance relates to the processes, policies and rules applied to manage risks of misconduct in the NZ ETS primary, secondary or derivatives market. It helps to ensure market participants are adequately informed and protected. There needs to be an appropriate balance between rules and oversight to prevent market misconduct while allowing participants sufficient flexibility to transact.

Market misconduct may arise in circumstances where market participants are impacted by:

- inadequate, false or misleading information
- fraud and misconduct, including money laundering
- manipulation of the NZU price and anti-competitive conduct.

Some types of market misconduct already fall under existing competition and consumer laws. However, financial market regulations do not apply to the NZ ETS (with the exception of derivatives) as NZUs are classified as commodities.

This means some forms of misconduct, which are regulated in New Zealand financial markets, are not regulated in the NZ ETS. In addition the NZ ETS does not regulate some forms of misconduct which are regulated in emissions trading schemes in other jurisdictions.

The NZ ETS includes a diverse range of participants, with varying sizes, expertise and capacity to manage their compliance obligations. An effective governance regime would need to take this diversity into account.

Potential issues

The Government has identified seven areas where the market governance of the NZ ETS has the potential to create risks:

- inadequate, false or misleading advice provided to participants
- a potential lack of transparency, monitoring and oversight of trades in the secondary market, including the price, volume and brokers for transactions. Currently it is not possible to see all of the information about secondary market trading in one place
- manipulation of the NZU price, including by spreading false market information, cornering or squeezing the market, or giving false impressions of market conditions
- insider trading (ie trading on the basis of material non-public information which, if it were made public, would likely have a significant effect on the price of NZUs). For example, this could occur if a participant had information that a large emitter planned to shut down their entire operation, or substantively reduced their emissions, then used that non-public information to trade NZUs in order to make a profit
- a potential risk of money laundering/financing of terrorism in the NZ ETS. For example, anti-money laundering laws already require retail banks in New Zealand to report large cash transactions and this type of requirement could be applied to NZU trades as well
- credit and counterparty risks, where one party fails to deliver on their side of an agreement for NZUs. For example, a trade involving NZUs could take place whereby payment is made but the NZUs are not transferred as the selling party defaults
- conflicts of interest involving an NZ ETR account or a trade involving NZUs. For example, if advice were given about an NZU trade by a party that stood to benefit from that trade, there could be a real, or perceived, conflict of interest.

The Government seeks feedback on whether any of these risks have materialised, or are likely to in future. There is limited evidence of these behaviours occurring in the NZ ETS to date. However, some of these behaviours have occurred in emissions trading schemes in other jurisdictions. In some instances this has significantly affected confidence in those markets.

There are a number of future events which might raise the risks of misconduct in the NZ ETS, including:

- the introduction of auctioning
- possible direct links to international markets
- the potential for the agricultural sector to have surrender obligations (at the farm level)
- the potential for higher trading volumes and/or prices in the future.

If market misconduct takes place in the NZ ETS, it has the potential to undermine the proper functioning of the scheme, erode confidence in the market and raise costs for market participants.

Options

The Government is not consulting on any options for changes to the market governance regime at this stage. This is because it is still seeking further information through this consultation about any misconduct risks that either already exist, or might present themselves in the future.

Decisions about market governance are complex and can have far-reaching and unintended consequences. A particular concern for the Government is the impact that changes to market governance might have on the levels of participation. Overly complex and onerous regulatory requirements would be likely to make it more difficult and expensive for firms to engage with the NZ ETS.

The Government has determined that there are no 'broad brush' options that would provide an appropriate level of protection for each of the potential issues listed above. Rather, for any of the issues where the Government determines it is necessary, a range of targeted interventions are likely to be needed. As a starting point, the Government will be likely to look to the existing financial markets regulation as guidance for the types of regulatory interventions that have been used to address similar concerns in other markets. Any interventions would need to be customised for the particular circumstances of the NZ ETS markets. This customisation work would be needed in order to ensure that they are effective, minimise compliance costs and avoid creating unintended consequences.

The following list describes some of the types of interventions that are currently used in other markets and which could be considered for use in the NZ ETS. This list is included to help inform respondents about the options that might be available to the Government if changes to the market governance regime were to be further considered in the future.

These components could include (without being exhaustive):

- requiring providers of advice to be licensed – anyone providing advice about transactions involving NZUs might need to demonstrate certain competency requirements, as well as meet ongoing conduct and care obligations once licensed
- disclosure requirements – specific information could be required to be disclosed whenever advice is given in relation to a trade involving NZUs. For example, this could be a short statement about the general risks of investing in NZUs
- transaction reporting – market participants could be required to submit reports detailing the purchase or sale (or other commercial arrangements), including at least price and volume, of NZUs to the regulator
- prohibiting certain conduct – such as insider trading or market manipulation
- require exchange based trading - trades involving NZUs could be required to take place on a regulated exchange. Exchanges could be required to be licensed or otherwise authorised by a central regulator. Exchange participants could also be subject to certain registration and conduct obligations.
- a range of other measures as/if deemed appropriate.

Questions

18. For each of the seven areas that we have identified as being sources of potential risk, what is your assessment of the level of risk that they create, both now and in the future? Please provide examples or evidence if possible.

	Current risk	Future risk
– inadequate, false or misleading advice	☐	☐
– a lack of transparency, monitoring and oversight for trades	☐	☐
– risks of manipulation of the NZU price	☐	☐
– insider trading	☐	☐
– money laundering risks	☐	☐
– credit and counterparty risks	☐	☐
– potential conflicts of interest	☐	☐
– other (please explain).	☐	☐

3.3 Market information

Summary of market information proposals

- The Government has established a dedicated NZ ETS website. The purpose of the website is to make it easier to access NZ ETS-related information, to support informed-decision making by participants.
- The Government seeks feedback on the content and usability of this website, this can be provided on our website.
- The Government also seeks feedback on whether it should make individual participant emissions data and compliance information publicly available.

Context

NZ ETS review found the current settings and management of the NZ ETS are creating significant regulatory uncertainty. Insufficient information about the NZ ETS has contributed to this issue, with businesses calling for more detailed and regular information to be provided.

Currently, information about the NZ ETS is difficult to find and understand. This is because it is distributed across a number of websites and there is little context provided about why or how the information may be useful.

More information about the NZ ETS should help market participants:

- understand NZ ETS supply and demand fundamentals, both in the past and into the future
- understand current and historical market activity
- to factor the NZ ETS into their short- and long-term decisions.

Proposal

The Government has made several changes to improve the provision of information. Market information is now on a dedicated NZ ETS website. The website includes historical and projected emissions and unit flows in the NZ ETS. The website will also provide policy announcements and updates to unit supply volumes. For example, the annual announcements of unit supply settings proposed by the coordinated decision-making process see section 2.2.

Possible publication of emissions and compliance activity

Most other emissions trading schemes publish the emissions data of firms or installations. The NZ ETS legislation does not allow publication of this kind of information. This difference has raised questions from some stakeholders.

The NZ ETS differs from some of these schemes because it has an upstream point of obligation. This means many participants report emissions data at an activity or sector level, rather than emissions directly related to their own entity or facilities. For example, the NZ ETS requires fuel suppliers (miners and importers) to report the emissions that will arise from third-party use of their products. Publishing NZ ETS upstream emissions may limit the relevance of this data.

The Government is interested in whether there may be benefits from publication of non-compliance cases. Public information about non-compliance may act as a deterrent. However, care would be needed as, for example, some non-compliance is because of reasons outside the participant's control.

Questions

19. Do you think that there would be benefits from publishing individual emissions data reported by NZ ETS participants? (Please explain.)
20. Do you think cases of non-compliance should be published? (Please explain.)
21. How would publishing these types of information impact you?

3.4 Compliance and penalties

Summary of compliance and penalties proposals

- The Government seeks feedback on options to improve the NZ ETS compliance regime.
- The Government proposes to introduce a set of strict liability infringement offences for lower-level non-compliance.
- The Government also seeks feedback on whether to change the $30 per unit penalty which applies where a person fails to surrender or repay units by the due date.

Context

It is critical to the integrity of the NZ ETS that participants comply with their obligations in the scheme.

The aims of the compliance regime are to:

- make the cost of non-compliance higher than the costs of compliance
- be stringent enough to facilitate international linkages[32]
- create an incentive for people to take due caution when undertaking their obligations.

The NZ ETS legislation includes criminal and civil penalties for non-compliance.

Criminal offences apply where people fail, among other things, to: collect information; register as a participant or submit an emissions return. For each of these offences, different penalties apply depending on whether they are assessed to have occurred without good reason ('reasonable excuse') or knowingly or with intent to deceive.[33]

To encourage participants to meet their obligations, a civil penalty of $30 per unit applies where participants fail to surrender or repay units by the due date (this is known as the 'excess emissions penalty'). Non-compliant participants must still surrender or repay the outstanding units and are subject to the excess emissions penalty of $30 per outstanding unit.

In certain circumstances the enforcement agency[34] is able to reduce the amount of the excess emissions penalty by up to 100%. This discretion can be applied where:

- a participant voluntarily discloses their failure to comply, or
- the enforcement agency is satisfied that incorrect information was reasonably believed.

In general, the enforcement agencies have worked to educate and assist compliance. This has included proactively engaging with participants to ensure they are aware of their obligations, the main timeframes and deadlines, and expectations around compliance. The enforcement agencies perform reviews to ensure that various information and reporting requirements have been met.

Forestry has different operational requirements than other sectors. There are a large number of forestry participants with less frequent reporting requirements. In comparison, non-forestry participants are required to report their emissions annually.

Issue

The NZ ETS review and the experience of regulators have identified two areas of the current compliance regime that may no longer be appropriate. These are:

i. **criminal offences for low-level offending**

ii. **the $30 per unit penalty for failing to surrender or repay units.** This can be further broken down into the level of the penalty and the penalty assessment that the enforcement agency is required to perform.

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[32] Linking would enable people to trade emission units between different emissions trading schemes.

[33] Sections 129, 131, 132, 133, 259 and 260 of the Climate Change Response Act 2002.

[34] The Environmental Protection Authority for non-forestry participants and the Ministry for Primary Industries for forestry.

Criminal offences for low-level offending are not appropriate

Low-level offending, such as reporting errors and other simple failures, is common, but these offences have often gone unsanctioned. This is because the only option for these errors is prosecution. The costs associated with prosecution have outweighed the public benefit. Instead, the enforcement agency has often relied on warnings in response to offending. Further information on experience in administering low-level non-compliance in the NZ ETS is provided in Appendix 4 – Detailed compliance analysis, table 15.

The $30 per unit penalty for failing to surrender or repay units may no longer be suitable

There are two potential issues with the excess emissions penalty:

- the $30 level may no longer be appropriate
- the discretion available for the enforcement agency to reduce penalties may be creating uncertainty for participants and can be time-consuming and challenging to apply consistently.

The $30 per unit penalty rate was selected because it was approximately double the expected cost of emissions over the first commitment period of the Kyoto Protocol (ie, the expected emissions cost over this period was $15). It was noted the $30 penalty rate may need to increase over time if emissions prices rose.[35] This was to ensure that non-compliance was more expensive and less attractive than the costs of compliance.

Higher carbon prices are expected in future, meaning that the penalty rate of $30 may no longer be appropriate.

The enforcement agency is required to conduct a penalty assessment for all cases of failure to surrender or repay units by the due date. This may be creating some uncertainty for participants as it may be unclear if they will be penalised and, if so, how much. It can also be time-consuming and challenging to ensure it is applied consistently.

See Appendix 4 – Detailed compliance analysis, table 16 provides a summary of experience in administering excess emissions penalties.

Options

Tools to manage low-level offending

Infringement offences

This option involves the establishment of infringement offences targeted at low-level non-compliance issues.[36] These would be strict liability offences, where the reasonableness test in its current form would not be required. A range of infringement offences have been prescribed in other legislation, including those under the Resource Management Act 1991, and the Fisheries Act 1996.

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[35] The penalty for failing to surrender is lower than those in the EU ETS, which imposes a penalty (as well as requiring the surrender of units) of 100 euros for each unit owing.

[36] Sections 129, 131, 132, 133, 259 and 260 of the Act.

Other offence sections of the NZ ETS legislation would still be able to be used to sanction more serious non-compliance (eg, wilful and intentional non-compliance),[37] enabling criminal prosecutions to be taken in cases of more serious offending.

Table 12 provides a high-level summary of how the option scores against operational criteria, compared to the status quo.

The proposed infringement offences are set out in Appendix 4 – Detailed compliance analysis, table 15 and table 18. The infringement fee is the highest amount the enforcement agency could apply through an infringement notice, and is proposed to be $1,000 for individuals and $2,000 for body corporates. The proposed infringement fine is the highest amount that could be applied if a recipient of an infringement notice challenged the fee in Court and was unsuccessful. The proposed infringement fine is a maximum of $3,000 for individuals and $6,000 for body corporates.

Table 12: Indicative rating of problem 2 – options to manage low-level offending compared with status quo

	Operational criteria			
Option	**Integrity**	**Minimises complexity and administrative cost**	**Consistency and proportionality**	**Clarity and transparency**
	Sanctions act as a deterrent and minimise opportunities for avoidance or unintended consequences, thereby fostering the integrity of the scheme.	The transaction and administration costs for participants and the Government are minimised.	Sanctions are proportionate to the non-compliant behaviour, and participants are treated consistently and fairly.	Policies and processes are understandable and straightforward, and the consequences of non-compliance are clear.
Infringement offences	✓	✓	✓	✓

Impact analysis

An infringement regime is expected to improve compliance outcomes while reducing administrative costs and complexity. For these lower-level offences, there would be no ability to prosecute, nor any requirement for reasonableness tests before an infringement notice is issued. It would still remain possible to prosecute more serious offences, such as those involving the intent to deceive to obtain a benefit.

The expected impacts are summarised in table 17 in appendix 4.

Implementing and monitoring

The operation and enforcement of the infringement offences would be the responsibility of the enforcement agency under the Act: the EPA for non-forestry participants, and MPI for forestry participants. MPI currently administers infringement offences under other pieces of legislation. The EPA would need to ensure it has systems and processes in place to administer this proposal. Internal policies would guide the operation of an infringement regime, and may

[37] Such as in section 133 of the Act.

include a ‘bedding in’ period. Decisions on whether to prosecute would be managed by the enforcement agency under existing policies, updated to account for the introduction of infringement offences.

If the person wished to dispute an infringement notice, the enforcement agency would consider any matters raised by the person, and would have the ability to waive the notice in exceptional circumstances. If the person wished to challenge the decision not to waive the infringement notice then they could request a court hearing through section 21 of the Summary Proceedings Act 1957. If unpaid by the final due date, the matter would be transferred to the fines collection unit of the Ministry of Justice.

It is expected the proposed approach would be given effect through empowering provisions in the primary legislation (the NZ ETS legislation would specify the offences and maximum fees), and associated regulations would prescribe the detailed structure.

Success would be measured by reduced rates of non-compliance, and therefore proportionally fewer infringement notices being issued over time. Information on compliance rates is already collected and will continue to be.

Assessments of the arrangements would be conducted by the Ministry for the Environment as part of their responsibility for the NZ ETS legislation. It will be important for the enforcement agency to contribute data and evidence into this regulatory stewardship review.

Options for changing the excess emissions penalty for failing to surrender or repay units

The Government has identified two options which may address issues with the excess emissions penalty.

Setting the penalty at a fixed dollar value and removing the ability to reduce the penalty

This option would remove the enforcement agency’s ability to reduce the penalty (eg, all failures to surrender or repay units by the due date would automatically incur the per unit penalty).

Use a proportional approach where the penalty applied is a percentage of the value of the outstanding surrender obligation

This option could be modelled on other penalty regimes. For example, the late-payment regime administered by Inland Revenue might provide an appropriate model, because it faces similar challenges; it affects large number of taxpayers with significant diversity among them (from individuals to large multinational companies). The late payment penalty for failing to pay tax is a percentage of the unpaid amount.[38]

Preferred option

The Government does not have a preferred option and seeks feedback on options to address problems with the excess emissions penalty (problem 2).

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[38] Section 139B of the Tax Administration Act 1994.

In any of these approaches the NZ ETS legislation could be updated to enable unit values for penalties to be set in regulations so that they may be updated from time to time.

Questions

22. Do you agree with the proposal to introduce strict liability infringement offences for low-level non-compliance? If not, why not?
23. What are your views on the levels of the proposed fines?
24. Has the excess emissions penalty for failing to surrender or repay units by the due date caused issues for you? If so, please explain.
25. Should the excess emissions penalty for failing to surrender or repay units by the due date be changed? If so, please explain.
26. What option do you see as most appropriate for the excess emissions penalty?
    - set the penalty at a fixed dollar value and remove the ability to reduce the penalty
    - use a proportional approach where the penalty is a percentage of the outstanding surrender obligation
    - other (please explain).

3.5 Technical and operational improvements

Overview of technical and operational improvements

The Government proposes to address nine technical and operational issues identified by regulators and participants. Resolving these issues may require amendments to the NZ ETS legislation.

The following three issues are considered the most important and may have the most impact on participants and the scheme. The other six proposed changes are summarised at the end of this section.

Issue 1 – Receiving units where there are overdue obligations

Participants who are eligible to receive NZUs from the Crown (eg, firms undertaking emissions removal activities, or eligible for industrial allocation) can currently continue to receive NZUs even if they have an overdue obligation (ie, an obligation from a previous reporting period). There is no mechanism to require the NZUs received from the Crown to be applied to an overdue obligation.

For example, if a participant that is eligible to receive an industrial allocation has an overdue surrender obligation for their emissions, they can continue to receive a full industrial allocation from the Crown.

The Government seeks to improve the integrity of the NZ ETS by increasing compliance with NZ ETS obligations.

Options

The Government proposes that when an entitlement to units is approved, these units are used first to repay any overdue unit obligation, before any remaining balance is transferred to the person. This is the preferred option as it increases the likelihood of the unit debt being paid and is fair to those who comply with their obligations.

Another option that was considered was to net-off emissions returns. This has been discounted as it would unnecessarily complicate reporting and emissions data.

Persons impacted are those who owe emissions units and are also eligible for receiving units.

Questions

27. Do you agree with the proposal to use approved units to repay any overdue unit obligation from a previous reporting period, before any remaining balance is transferred to the owner? If not, why not?

Issue 2 – Partial opt-in

Large purchasers of obligation fuels,[39] coal or natural gas (together, 'controlled fuels') can 'opt-in' to the NZ ETS and take on a mandatory participant's obligations (eg, the supplier) if they meet size thresholds.

Opting into surrender obligations allows large purchasers of controlled fuels to manage their own NZ ETS liabilities rather than have the cost imposed on them by their suppliers. For example, an electricity generator can choose to take on the surrender obligation of the mining company it buys its gas or coal from. In these circumstances, the supplier of coal or gas is no longer liable for these emissions.

The NZ ETS legislation is unclear about whether an opt-in participant can choose to opt-in for only a portion of their controlled fuel purchases. This is further complicated as the controlled fuel purchases may come from more than one supplier.

The Government seeks to provide clarity on this issue by either expressly allowing or prohibiting partial opt-in.

Options

The Government does not have a preferred option, and seeks feedback on whether large controlled fuel purchasers should be able to opt-in for only a portion of their purchases.

The people affected by this proposal are opt-in participants that purchase controlled fuels from more than one supplier, as well as such suppliers.

[39] "Obligation fuels" are defined in r 4 of the Climate Change (Liquid Fossil Fuels) Regulations 2008.

Questions

28. Should large purchasers of coal, natural gas or obligation fuels have the ability to opt-in for only a portion of their obligations?
29. As a mandatory participant that supplies this controlled fuel, what burden would it create if more of your large purchasers were to opt-in? Please explain.

Issue 3 – Closing a loophole related to coal stockpiles in all coal activities

A person must be a participant in the NZ ETS if they import or mine over 2,000 tonnes of coal in a year, or may choose to opt-in as a participant if they purchase mined coal where the total coal purchased exceeds 250,000 tonnes per year. The participant must report their emissions and surrender emission units for that year. Coal that is stockpiled for future years does not have an NZ ETS cost until it is sold/used (this is called a stockpile adjustment).

There is a loophole available in the operation of the NZ ETS legislation. For example, a participant may import a high volume of coal in year one but not sell this coal immediately, so it is added to their stockpile. If, in subsequent years they do not import or mine 2,000 tonnes of coal, they are not an NZ ETS participant, and are able to sell stockpiled coal without reporting or paying an NZ ETS obligation.

The Government seeks to maintain the integrity of the NZ ETS by closing this loophole and ensuring that NZ ETS obligations cover all coal emissions.

Options

Resolution of this problem may require amending the NZ ETS legislation. Three options to resolve this issue are considered.

1. Remove the ability to make stockpiling adjustments.
2. Require the reporting of all coal sold or used from the stockpile in the year, regardless of whether the participant meets the threshold for coal importing, purchasing or mining
3. Remove the threshold for coal mining, importing and purchasing. This would require all coal to be accounted for annually (including stockpile adjustments).

The Government prefers option 2. This is because it has the least impact on participants as it still allows stockpile adjustments to be made, does not capture those below the thresholds and is administratively efficient.

The Government seeks views on the impacts of these options.

Questions

30. Do you agree with the proposal that all coal sold or used from a stockpile be reported, regardless of whether the participant meets the threshold for coal importing or mining in the year the coal was sold or used? If not, why not?

Other proposals that we would like your feedback on

A further six issues are summarised below.

Issue 4 – Ability to amend unique emissions factor errors from previous years

Some participants have the option of using unique emissions factors (UEFs) instead of prescribed default emissions factors. Applications for new UEFs need to be made by 31 January in the year they will be used. There are many requirements for UEF applicants, including the need to monitor the accuracy of each UEF.

The NZ ETS legislation prevents amendments to UEFs that were used in previous years even if an error is found. The only alternative is to revert the participant back to the default emissions factor. Other areas of the NZ ETS legislation provide ways to resolve errors with 'make good' provisions (eg, through amendments of emissions returns) and penalties, if appropriate.

The Government seeks the ability to amend UEFs from previous years if an error is found. This would result in amendments to emissions returns, and penalties would then be applicable.

Questions

31. Do you agree with the proposal that the Government should be able to amend UEFs from previous years? If not, why not?

Issue 5 – Repayments for Industrial Allocation (s125) and Forestry (s189)

If a participant is required to repay units they received from the Crown, the NZ ETS legislation can require the participant to repay the exact units received, if the participant still holds them. This can cause unnecessary administration.

The Government proposes to remove the requirement to repay the exact units received. That is, if you received units from an industrial allocation application (NZU_EITE), and had to make a repayment of these, then you could repay units that were NZU_EITE.

Questions

32. Do you agree with the proposal that participants should repay the same type of units, rather than the exact same unit? If not, why not?

Issue 6 – Annual allocation adjustment repayment

The NZ ETS legislation does not specify a time by which repayments for annual allocation adjustments must be made. A failure to repay is an offence, however, there is no point in time to determine when that offence has occurred.

If an annual allocation adjustment is made under section 83 of the Act and a repayment of units is required, the timing is set under section 83(6). The 30-day timing for repaying units under section 125 does not apply.

We propose to extend section 125 to apply to units required to be repaid following an annual allocation adjustment under section 83.

Questions

33. Do you agree with the proposal to extend the general 30 day due date for repayments to annual allocation adjustment repayments? If not, why not?

Issue 7 – Surrenders and repayments under s189

Surrenders and repayments for post-1989 forestry are calculated from the date emissions returns are submitted. The time periods for the relevant deadlines are inconsistent. The time taken for regulators to process the emissions return reduces the time participants then have to meet their obligations. This can contribute to non-compliance beyond the participants' control.

The deadline for surrenders is 20 working days, while repayments have 60 working days.

The Government proposes to amend the NZ ETS legislation so the deadline for surrenders and repayments is 60 working days from the date a notice is sent (rather than from when a return is submitted). This is similar to the minimum of 41 working days that non-forestry surrenders face.

Questions

34. Do you agree with the proposal that the deadline for surrenders and repayments is 60 working days from the date a notice is sent? If not, why not?

Issue 8 – Allowing consolidated groups to apply for an industrial allocation

The NZ ETS legislation allows consolidated groups to be established to report emissions and carry out surrenders. Consolidated groups avoid the need to manage multiple accounts for large corporates.

The NZ ETS legislation does not allow industrial allocation to be transferred into a consolidated group account, requiring corporates to hold multiple accounts.

The Government proposes to amend the NZ ETS legislation to allow industrial allocations to be transferred to a consolidated group account.

Questions

35. Do you agree with the proposal that industrial allocations can be transferred to a consolidated group account? If not, why not?

Issue 9 – Inconsistencies with the Companies Act 1993

There are issues with how the Companies Act and the NZ ETS legislation interact. The existing provisions are unclear if the power granted to the account holder's representative under section 18D(2) to 'operate the holding account' extends to closing the account under section 18B if is no account holder due to a company having been struck off or removed from the New Zealand Companies Office Register.

The Government's proposes to make it clear that the account holder's representative (account operator) can close the Register account where the Company has been removed from Companies Register.

In addition, when a company is struck off or removed from the New Zealand Companies Office Register, it is unclear whether units vest in the Crown (under s 324 of the Companies Act) or if NZ ETR account representatives can still operate the Register account (under s 18D of the NZ ETS legislation).

The Government proposes that the NZ ETS legislation takes precedence over the Companies Act. This would mean account operators continue to operate the account until a succession plan is in place (including transferring units). Units would vest in the Crown if the account operator chose to close the account and it still held units.

Questions

36. Do you agree with the proposal that account operators continue to operate NZ ETS accounts until a succession plan is in place? If not, why not?
37. Do you agree with the proposal that units should vest in the Crown if the account operator chooses to close the account? If not, why not?

4 Objectives and criteria

The proposals in this document will support and deliver the Government's three fundamental objectives for climate change policy and New Zealand's transition to a net zero emissions economy. These objectives are:

- leadership at home and internationally
- a productive, sustainable and climate-resilient economy
- a just and inclusive society.

Objectives for unit supply in the New Zealand Emissions Trading Scheme

The Government identified three key unit supply objectives in the NZ ETS review.[40] These objectives reflect key principles for the efficient and effective operation of the NZ ETS. In particular, they have guided the analysis of options for the price ceiling and industrial allocation sections of this document. These objectives are to:

- improve regulatory certainty and predictability
- align the NZ ETS with New Zealand's 2030 target and future targets
- be consistent with broader NZ ETS design policy intent.

Operational criteria

A set of operational criteria is used to assess operational proposals in this document[41] (table 14). For example, the NZ ETS review already assessed that implementing a mechanism to auction units would deliver a net benefit compared to the status quo and Cabinet made an in-principle decision to do so in July 2017. Now the task is to identify how best to implement an efficient auction mechanism. This means options are compared against each other rather than the status quo.

Approach to outlining and assessing options

The proposals are outlined to transparently assess options against objectives and criteria, and to provide reasoning for preferred options. In general, the format followed involves: outlining the current situation (context); identifying problems that may exist with this status quo; what the options for change are; and how these options are assessed against the relevant objectives and/or criteria.

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[40] For more information on these objectives see www.mfe.govt.nz/more/cabinet-papers-and-related-material-search/regulatory-impact-statements/regulatory-impact-17.

[41] In considering options for decisions on industrial allocation, we have used a different set of objectives, which are also based on the unit supply objectives but are tailored to the particular issues for allocation. See section 2.6.

Table 13 shows the notations used in tables for assessments of impacts.

Table 13: Notation for impact assessment

Impact	Notation	Impact	Notation
Significantly positive impact or lower risk	✓✓	Significantly negative impact or higher risk	xx
Positive impact or lower risk	✓	Negative impact or higher risk	x
No change	o		

This approach is intended to enable stakeholders to comment on our understanding of the current situation, problems and assessment of options, and provide information on factors that should be considered in final policy decisions. This feedback is a very important source of evidence that helps the Government to strengthen proposals, understand their impacts and whether any impacts need to be managed. Table 14 shows the operational criteria for assessing improvements to the NZ ETS.

Table 14: Operational criteria for assessing improvements to the NZ ETS

Operational criterion	Description
Integrity	Consistent with the overall NZ ETS objectives of helping New Zealand meet emissions reduction targets and reduce net emissions below business as usual levels. In practical terms, this means preserving the environmental integrity of the NZ ETS, as well as encouraging compliance and enabling enforcement of the scheme's rules. It also includes minimising opportunities for collusion or market manipulation, and avoiding perverse incentives or unintended consequences.
Minimal complexity and administrative cost	This relates to ensuring implementation is as straightforward as possible, so administration and transaction costs for both participants and the Government are manageable. There may be trade-offs between costs for the Government and simplicity for participants, and in these cases a balance should be struck to minimise the overall administrative burden.
Consistency and proportionality	Implementation should treat participants consistently and similarly, to avoid advantaging some participants over others. Proportionality means interventions, for example, compliance actions, are appropriately scaled to address the problem or achieve the outcome sought.
Clarity and transparency	Policies and operational processes should be understandable and unambiguous. Transparency also includes ensuring that appropriate market information is made publically available in a timely manner (this may need to be balanced with confidentiality where required and for managing integrity risks).
Market efficiency	An ETS market is efficient when it achieves allocative efficiency and delivers efficient price discovery. Allocative efficiency is the market's capacity to channel resources, in this case, NZUs – to their highest value uses. That is, emissions are reduced by those best placed to abate, at the best time. Efficient price discovery means, for NZUs to flow to their highest value uses, the carbon price needs to reflect all available information. Provision of relevant market information and predictable policy will help participants and others to identify and understand the overall supply and demand conditions for permits, facilitating efficient price discovery. This will produce a reliable price signal that informs investment decisions, while minimising the cost impact of the carbon price.

5 Consultation process

How to make a submission

The Government welcomes your feedback on this discussion document. The questions posed throughout this document are summarised below. They are a guide only and all comments are welcome. You do not have to answer all of the questions.

To ensure your point of view is clearly understood, you should explain your rationale and provide supporting evidence where appropriate.

You can make a submission in three ways:

- use our online submission tool, available on our website.
- download a copy of the submission form to complete and return to the Ministry for the Environment. This is also available on our website. If you do not have access to a computer, a copy of the submission form can be posted to you
- write your own submission.

If you are posting your submission, send it to NZ ETS improvements, Ministry for the Environment, PO Box 10362, Wellington 6143 and include:

- NZ ETS improvements
- your name or name of the organisation you represent
- postal address
- telephone number
- email address.

If you are emailing your submission, send it to etsconsultation@mfe.govt.nz as a:

- PDF
- Microsoft Word document (2003 or later version).

Submissions close at 5.00 pm on 21 September 2018.

Contact for queries

Please direct any queries to:

Phone: +64 4 439 7400

Email: etsconsultation@mfe.govt.nz

Postal: NZ ETS Improvements, Ministry for the Environment, PO Box 10362, Wellington 6143

Publishing, releasing and analysing submissions

All or part of any written submission (including names of submitters), may be published on the Ministry for the Environment's website, www.mfe.govt.nz. Unless you clearly specify otherwise in your submission, the Ministry will consider that you have consented to website posting of both your submission and your name.

Contents of submissions may be released to the public under the Official Information Act 1982 following requests to the Ministry for the Environment (including via email). Please advise if you have any objection to the release of any information, including commercially sensitive information, contained in a submission and, in particular, which part(s) you consider should be withheld, together with the reason(s) for withholding the information.

We will take into account all such objections when responding to requests for copies of, and information on, submissions to this document under the Official Information Act.

The Privacy Act 1993 applies certain principles about the collection, use and disclosure of information about individuals by various agencies, including the Ministry for the Environment. It governs access by individuals to information about themselves held by agencies. Any personal information you supply to the Ministry in the course of making a submission will be used by the Ministry only in relation to the matters covered by this document. Please clearly indicate in your submission if you do not wish your name to be included in any summary of submissions that the Ministry may publish.

After receiving submissions, the Ministry will evaluate them and may, where necessary, seek further comments. Your submission will contribute to advice to Ministers. The Government welcomes your feedback.

6 Questions to guide your feedback

Questions

1. What issues should the decision maker consider when making unit supply decisions?
   - proper functioning of the ETS
   - NZ's projected emission trends
   - number of NZUs expected to be allocated
   - emissions covered by the ETS
   - arrangements that govern the operation of the ETS
   - any limit on international units
   - emissions budgets, such as those proposed in the Zero Carbon Bill
   - recommendations from the independent Climate Change Commission proposed in the Zero Carbon Bill
   - agreements or arrangements regarding international emissions reductions
   - non-ETS climate change mitigation policies
   - modelling of New Zealand's domestic abatement potential and costs
   - forestry reporting periods
   - forecasts of international carbon prices
   - inflation rates
   - other (please explain).
2. What, if any, restrictions should be placed on the NZ ETS decision maker when making unit supply decisions? (For example, currently one year's notice must be given for changes to unit supply volumes).
3. Do you agree with the proposal to implement a single-round, sealed bid auction format with uniform pricing? If not, why not?
4. Do you think that auctioning frequency should be
   - weekly (not preferred)
   - monthly
   - quarterly
   - annually (not preferred).
5. Do you agree with the proposal that all NZ ETR account holders should be able to participate at auction? If not, why not?
6. Do you think that the Government should use the proceeds gained from the auctioning of NZUs for specific purposes? If so, please explain what those purposes would be.
7. Do you agree with the proposal to replace the $25 fixed priced option with a cost containment reserve price ceiling implemented through the auctioning mechanism? If not, why not?

Questions

8. How do you think the price level and number of units in the cost containment reserve should be managed over time? (Note: specific settings will be consulted on later). Select all that apply.
   - decision-maker has discretion to determine the settings while having regard to certain factors (please explain)
   - settings are determined by mandated formulae (please explain)
   - other (please explain).

9. What actions should occur if the price ceiling is struck?
   - increase the price ceiling trigger level, if it was set on a too low or erroneous basis
   - increase the limit on international units, if high domestic abatement costs are the cause of the excessively high prices
   - undertake a fuller system review, if the high prices are seen as a sign of wider market dysfunction
   - government buying international units to compensate for additional units added to the market through the price ceiling
   - adjust the overall cap
   - other (please explain).

10. Do you agree with the proposal to review the price ceiling if another significant event occurs (such as a decision to link the NZ ETS with another carbon market)?

11. Do you agree that the $25 FPO may not be appropriate for the short term, and may need to be adjusted before 2020? Please explain.

12. Which mode of purchase for international units (direct or indirect) would be the best approach for the NZ ETS, acknowledging that there are other significant factors that will influence this decision? Please explain.

13. If NZ ETS participants are able to purchase and surrender international units directly, do you think that there is justification for varying the percentage of allowable international units by participant type? If not, why not?

14. How do you think decisions on a phase-down of industrial allocation should be made? Select all that apply.
   - make an up-front decision to phase-down industrial allocation from 2021
   - set a test or condition that would trigger a phase-down
   - establish a decision-making process to determine industrial allocation rates over time
   - other process (please explain).

15. If a decision-making process for industrial allocation is implemented, which of the following factors should the decision-maker taken into account? (Select all that apply).
   - New Zealand's emission budgets
   - the risk of emission leakage, with the aim of avoiding leakage driven by differential emission pricing policies, and based on economic analysis of the markets for EITE activities and their products
   - other sources of supply into the NZ ETS

Questions

- the availability of low-emissions technologies
- New Zealand's international obligations
- other (please explain).

16. If a phase-down is initiated in future, which of the following rates for phasing-down industrial allocation should be considered?
    - 0.01 per year
    - 0.02 per year
    - 0.03 per year
    - Other (please explain).
17. What impact would changes to the levels of industrial allocation from 2021 have on your investment or business decisions?
18. For each of the seven areas that we have identified as being sources of potential risk, what is your assessment of the level of risk that they create, both now and in the future? Please provide examples or evidence if possible.

	Current risk	Future risk
– inadequate, false or misleading advice	☐	☐
– a lack of transparency, monitoring and oversight for trades	☐	☐
– risks of manipulation of the NZU price	☐	☐
– insider trading	☐	☐
– money laundering risks	☐	☐
– credit and counterparty risks	☐	☐
– potential conflicts of interest	☐	☐
– other (please explain).	☐	☐

19. Do you think that there would be benefits from publishing individual emissions data reported by NZ ETS participants? (Please explain.)
20. Do you think cases of non-compliance should be published? (Please explain.)
21. How would publishing these types of information impact you?
22. Do you agree with the proposal to introduce strict liability infringement offences for low-level non-compliance? If not, why not?
23. What are your views on the levels of the proposed fines?
24. Has the excess emissions penalty for failing to surrender or repay units by the due date caused issues for you? If so, please explain.
25. Should the excess emissions penalty for failing to surrender or repay units by the due date be changed? If so, please explain.

Questions

26. What option do you see as most appropriate for the excess emissions penalty?
    - set the penalty at a fixed dollar value and remove the ability to reduce the penalty
    - use a proportional approach where the penalty is a percentage of the outstanding surrender obligation
    - other (please explain).
27. Do you agree with the proposal to use approved units to repay any overdue unit obligation from a previous reporting period, before any remaining balance is transferred to the owner? If not, why not?
28. Should large purchasers of coal, natural gas or obligation fuels have the ability to opt-in for only a portion of their obligations?
29. As a mandatory participant that supplies this controlled fuel, what burden would it create if more of your large purchasers were to opt-in? Please explain.
30. Do you agree with the proposal that all coal sold or used from a stockpile be reported, regardless of whether the participant meets the threshold for coal importing or mining in the year the coal was sold or used? If not, why not?
31. Do you agree with the proposal that the Government should be able to amend UEFs from previous years? If not, why not?
32. Do you agree with the proposal that participants should repay the same type of units, rather than the exact same unit? If not, why not?
33. Do you agree with the proposal to extend the general 30 day due date for repayments to annual allocation adjustment repayments? If not, why not?
34. Do you agree with the proposal that the deadline for surrenders and repayments is 60 working days from the date a notice is sent? If not, why not?
35. Do you agree with the proposal that industrial allocations can be transferred to a consolidated group account? If not, why not?
36. Do you agree with the proposal that account operators continue to operate NZ ETS accounts until a succession plan is in place? If not, why not?
37. Do you agree with the proposal that units should vest in the Crown if the account operator chooses to close the account? If not, why not?

Appendix 1 – Impact analysis for auctioning

This appendix provides the full impact analysis for auctioning, divided into four sections:

- bidding formats
- pricing type
- frequency
- participation.

Each section provides a qualitative description of how the various options perform against the identified criteria.

Impact analysis of bidding formats

Criteria: Complexity and administrative costs

Ascending clock auctions are more complex

Ascending clock auctions require complex rules to function well. Participants are incentivised to make serious bids early, rather than late, in the auction. Bids are also determined multiples times (adding costs for participants). By contrast, in a sealed-bid auction, a bidder needs to only determine how to bid once. Sealed-bid, single-round may be easier to understand as it involves one round only.

Bidding decisions may be easier to make in ascending clock auctions, however this benefit is less important in the presence of a well-functioning spot market

Ascending clock auctions provide informational feedback in each round, which helps auction participants in making bidding decisions. While sealed-bid, single-round auctions require preparation and ex-ante decisions about the bids auction participants submit. However, a well-functioning spot market helps reveal similar information to an ascending clock auction, so the informational feedback benefit of the bidding format may be less important in the presence of a spot market.

Sealed-bid, single-round auctions take less time to run, but there are options to address longer duration of ascending auctions

Sealed-bid, single-round auctions also take less time to run because there is only one round. However, there are options to address the longer open time of an ascending clock auction, such as including a proxy bidding facility[42] to largely remove the speed advantage of the closed auction.

[42] A proxy bidding facility places bids on behalf of the participant at pre-agreed increments up to the maximum price that the participant is willing to pay.

Criteria: Consistency and proportionality

The informational feedback of ascending clock auctions is beneficial for small bidders, however this benefit is less important in the presence of a well-functioning spot market

Ascending clock auctions allow small players to 'free ride' on the information sets of larger players. In sealed-bids auction, small players do not have access to market information during bidding and could be less successful due to strategic bidding by larger participants. However, the presence of a well-functioning spot market addresses the issue of access to information, meaning this advantage of ascending clock auctions is less pronounced.

Criteria: Market efficiency

Market efficiency of uniform-pricing auctions is affected by incentives to shade bids, however these incentives are tempered by the presence of a spot market

Strategic bidding in auctions selling a large number of the same product (in this case, NZUs) is important because one bid may affect the price at which units from another winning bid are purchased. This 'price determining bid' is referred to as the marginal winning bid. This can incentivise a bidder to bid (or 'shade') below their true unit demand curve, so the marginal winning bid clears at a lower price. This incentive is known as 'bid shading' or 'demand reduction', and leads to market inefficiency.

Bid shading can occur in either an ascending clock or a sealed-bid, single-round auction. In the former, the incentive exists to bid below demand is to prevent the price from rising in subsequent rounds. In the latter, the incentive to bid below demand is to avoid the winning bid clearing at a price higher than the market price. This incentive is particularly strong for large participants, because their marginal bid is more likely to be the one clearing the market.

Overall, the impact a bid shading strategy can have on the auction clearing price is tempered by the presence of a reliable spot price signal, because the latter provides public information about the current market expectations of NZU value.

Ascending clock auctions have better information-gathering characteristics.

Market efficiency is also improved by participants' ability to easily acquire trade-relevant information.

Ascending clock auctions reveal information about others' bids and so may help bidders assess the true value NZUs being sold. However, as noted, this information is already provided by the price signal in a well-functioning market, which makes the information-gathering properties of an ascending clock auction less important.

Criteria: Market integrity – collusion and manipulation

Sealed-bid, single-round auctions are more resistant to collusion

Sealed-bid, single-round auctions are generally regarded as more resistant to collusion than multiple-round auctions, where repeated signals of demand and value are available to bidders. This is because repeated signals can provide auction participants with opportunities to send signals to other participants and to detect when someone has reneged on a collusive agreement. As a result, ascending clock auctions are more at risk of collusion.

The advantage of sealed-bid auctions is particularly important when there are few bidders and there is limited competition.

Preferred option for the bidding format

The preferred option for the bidding format is single-round, sealed-bid.

This is mainly because that the market efficiency advantage of ascending clock auctions (open-bid, multiple-round auctions) is less evident given the presence of a secondary NZU spot market, and that sealed-bid, single-round auctions have less complex auction rules and are more resistant to collusion.

Impact analysis of pricing types

This impact analysis section focuses on uniform-pricing and discriminatory-pricing in sealed-bid, single-round auctions, because this bidding format is favoured over ascending clock auctions.

Complexity and administrative costs

Discriminatory pricing requires more complex decisions around bid strategies

This is because, unlike uniform-price auctions, discriminatory-price auctions require decisions about multiple clearing prices, which would need to be based on a more complex market analysis.

Consistency and proportionality

Discriminatory pricing favours larger bidders due to the associated informational burden and their own influence on the clearing price

Discriminatory pricing incentivises bidding near the market-clearing price. This favours larger bidders because they have greater resources for forecasting, market analysis to estimate the clearing price, and have better information about the clearing price due to the influence of their own bids on it.

By contrast, a uniform-price auction has a smaller informational burden because small bidders do not need to know the distribution of others' abatement costs to determine an optimal bid. Uniform pricing levels the playing field by weakening the penalty for guessing wrong.

Market efficiency

Discriminatory pricing is less efficient when information is asymmetric

In auctions with discriminatory pricing, successful bidding strategies rely on having effective information for others' likely demand for units. When this information is held asymmetrically, some bidders may overestimate the overall distribution of others' demand for units. These bidders will tend to outbid those that have a higher demand but have underestimated the overall distribution, leading to an inefficient NZU allocation.

By contrast, uniform-pricing means each bidder knows they will pay the price of the marginally winning bid. This means each bidder's strategy will be to bid up to their own marginal demand, and as a result, the bidders with the highest marginal value for NZUs will tend to win them.

Discriminatory pricing tends to result in bids below true values

Discriminatory pricing typically result in bids below market value. In discriminatory-price auctions, bidders are not price takers, and the auction participants' bid(s) affect their

payments. This creates an incentive to lower bid(s) to lower the price paid (which is traded off against the probability of not winning the unit).

Market integrity – collusion and manipulation

Uniform pricing can protect against hoarding

Hoarding is when entities obtain and hold units in excess of their own anticipated obligations. One reason can be to 'squeeze' or 'corner' the market, for example, to reduce unit supply so that these units can be resold later at a higher price.

Uniform pricing can mitigate the risk of hoarding because it makes it safer for firms to place some bids at prices well above the forecast clearing price to ensure a large volume of NZUs. For example, if a firm faces a high cost of not getting a minimum supply of allowances, it can bid high on some units. This would greatly increase its probability of winning on those bids, but the amount paid in a uniform-pricing auction would still depend on the marginal bid.

Participants wishing to disrupt the market would have to pay much more than the marginal bid for these high-value units – this would reflect the firm's high cost of not receiving the minimum supply.

Preferred option for pricing type

Uniform pricing is the preferred pricing type option.

We consider discriminatory pricing to be a weak option, particularly because of the impact it would have on smaller participants and market efficiency.

Impact analysis of frequency

Complexity and administrative costs

Administrative costs increase with auction frequency

Planning and running more frequent auctions can increase administrative costs. Examples include costs incurred managing the margin deposits participants need to make before bidding or the need to frequently analyse and determine the minimum clearing price.

Participation costs increase with auction frequency

Participation costs increase with auction frequency because bidders would need to determine their bidding schedules more frequently.

Consistency and proportionality

More frequent auctions improve accessibility because they imply lower working capital requirements, but this may be less important in the presence of well-functioning spot markets

Concerns about working capital requirements relate to the timing difference between purchasing units and surrendering them to meet compliance obligations. More frequent auctions imply lower working capital requirements because it would provide auction participants with the flexibility to align expenditure on units with accruing liabilities over the compliance period. This is less of an issue in the presence of a well-functioning spot market because market participants can trade on the market at any time.

Market efficiency

Very frequent auctions can result in a less accurate price signal

Very frequent auctions can mean businesses devote less time to information gathering and preparation, reducing the accuracy of some bids and the auction price signal.

Very infrequent auctions can increase price volatility if the market is illiquid

Very infrequent auctions would mean not enough opportunities are available for bidders to purchase NZUs by auction, which could make prices more erratic around the time of auctions. This risk is mitigated in the presence of a well-functioning secondary market.

More frequent auctions can mitigate the risk of price volatility if the yearly volume of units to be auctioned is large

Smaller quantities are more easily absorbed by the secondary market, and more frequent auctions may help to mitigate the risk that auctions contribute to price volatility.

Market integrity – collusion and manipulation

More frequent auctions reduce the risk of market abuse

More frequent auctions reduce the risk of market abuse because they decrease the value at stake for bidders in individual auctions while increasing bidders' flexibility to make use of later auctions to adjust their trading positions.

Very frequent auctions can increase the risk of price manipulation

Very frequent auctions imply much smaller numbers of units being auctioned off per auction, which can then reduce participation on average (for example, due to increased transaction costs). Reduced participation would result in a less competitive bidding field, and increase the risk of price manipulation.

Preferred option for auction frequency

Based on the analysis above, it is proposed that the extreme options for auctioning frequency (weekly or annually) are discarded.

The Government considers auction frequency should be monthly or quarterly. However, because decisions have yet to be made on the volume of units to be auctioned from 2021–2030, sufficient information to form a view on whether monthly or quarterly auctions are preferred is not available yet.

The Government seeks feedback on auctioning frequency, including any preferences for weekly, monthly, quarterly or annual auctions.

The Government considers an approach which retains flexibility in auction frequency and can adapt to changing circumstances is appropriate.

Impact analysis of participation

Complexity and administrative costs

Restricting participation would likely require more complicated bidder rules

Restricting auctioning participation to only include those with NZ ETS surrender obligations would likely require additional associated bidder rules and enforcement. This would bring increased complexity and cost, and it is unclear if these rules would be effective.

Consistency and proportionality

Restricting participation could have a larger impact of smaller entities

Small NZ ETS participants are likely to prefer to use financial intermediaries to help manage their obligations. Restricting these intermediaries from participating in auctions would reduce their ability to provide such services. This would make it more complicated and expensive for smaller firms to participate in the NZ ETS.

Market efficiency

Larger numbers of auction participants are more likely to result in an efficient price

Larger numbers of market participants are more likely to achieve a competitive auction clearing price and limit the risk that strategic buyers are able to manipulate the auction clearing price.

Restricting auctioning participation can limit the role of financial intermediaries in supporting liquidity

Financial intermediaries help support liquidity in the spot market by acting as market makers and by being available as alternative counterparties when other market participants are not actively trading. Restricting their access to auctions would reduce their ability to perform these roles in the spot market.

Market integrity – collusion and manipulation

Larger numbers of auction participants reduce the risk of collusion and manipulation

Larger numbers of participants make it difficult to enter into collusive agreements aimed at manipulating the auction clearing price.

Preferred option for auction participation

The preferred option is to allow all registered account holders to participate in auctions. This would encourage participation and maximise the likelihood of achieving competitive bidding at auction.

In practical terms, it would be difficult to restrict participation to entities with mandatory and voluntary obligations, because excluded entities could simply contract the eligible entities to buy on their behalf.

To ensure auctions are competitive and free from collusion and manipulation, the Government expects to create eligibility criteria that:

- ensures bidders are credible, to avoid spurious bidding strategies aimed at manipulating the auction price. This may include requiring the holding of deposits and/or charging small fees for participation.
- likely includes rules to limit the maximum parcel of permits that can be purchased by any one bidder, for example, to 25 per cent of the available NZUs.

Appendix 2 – Additional context for industrial allocation

The risk of emissions leakage

The risk of emissions leakage is extremely difficult to assess, and there is no consensus among economists or stakeholders about the extent of its occurrence so far. However, it is clear:

- NZ ETS costs, with no industrial allocation, would be very material to the profitability and commercial viability of emission-intensive activities
- at the time the NZ ETS was established, very few competing countries or jurisdictions had emissions pricing, so NZ ETS costs could not be passed into the pricing of traded products.

Since the establishment of the NZ ETS in 2008, the Paris Agreement has committed all Parties to achieving Nationally Determined Contributions (NDCs). Emissions pricing has also become more common and its expansion is expected to continue. According to the World Bank,[43] the implementation of emissions pricing has tripled in the last decade. These initiatives currently cover about 15 per cent of global greenhouse gas emissions, with coverage forecast to climb to around 20 per cent in 2020 when China's ETS is scheduled to become fully operational. Furthermore, 88 Parties to the Paris Agreement, representing 56 per cent of global emissions, have stated they may use emissions pricing as a tool towards meeting their NDCs.

Many emissions-intensive industries (such as steel and chemicals) remain outside the scope of emissions pricing in most parts of the world. In addition, where emissions-intensive industries are covered by emissions trading schemes, they are often provided free allocation at comparable levels to the NZ ETS. A couple of these schemes have made commitments to significant phase-downs. The European Union and the Western Climate Initiative (consisting of California, Ontario and Quebec) have committed to phase-downs of free allocation to emissions-intensive industries of between one and three per cent per annum.[44]

Current levels of assistance in the NZ ETS (eg, 90% support for highly emissions intensive and trade-exposed activities) are high enough to ensure there is a very limited risk of emissions leakage. If the level of assistance is reduced in the NZ ETS at rates faster than those used overseas there may come a point at which this risk becomes significant.

It is challenging to predict when this point might be as there are a number of uncertainties:

- how sensitive the commercial viabilities of different products are to emissions prices
- how adaptable New Zealand's emission-intensive sectors will be in dealing with these costs and their ability to invest in new technologies
- future progress on the coverage of emissions pricing internationally, unit prices, and allocation in competing countries.

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[43] World Bank and Ecofys. 2018. "State and Trends of Carbon Pricing 2018 (May), World Bank, Washington, DC.

[44] The EU ETS is reducing allocations for some sectors at much higher rates, but these are not EITE activities and are therefore not exposed to any significant risk of leakage.

The risk of over-allocation

There is a risk of over-allocation within the NZ ETS because the emissions intensity of production in many industries has trended downwards over time, but allocation rates have remained static. These improvements have been possible because of continued action on energy efficiency and the availability of lower-emissions inputs.

The average improvement in energy intensity in New Zealand's industrial sectors over recent decades has been about one per cent per annum.[45] The New Zealand Energy Efficiency and Conservation Strategy 2017–2022 has also set a goal for process heat of reducing industrial emissions intensity by at least one per cent per annum on average between 2017 and 2022. However, some industrial emissions are related to chemical processes and are therefore unaffected by improvements in energy efficiency.

In the short term it would be undesirable to reduce allocation rates as a response to improvements in efficiency, because this would undermine the incentive for firms to make such improvements. However, by 2021 the baseline data that was used for setting allocations will be at least 14 years old, and after 2030 it will be 24 years old. With no phase-down of allocation levels, even a very slow downward trend in emissions intensity would mean that a nominal level of assistance of 90 per cent may become more than 100 per cent. At that point allocation would exceed the real exposure of the activity to NZ ETS costs, which would result in over-allocation.

Over-allocation would be an unjustifiable cost to the Government. In combination with surrender obligations, it would mean that firms have a small net incentive to emit more.

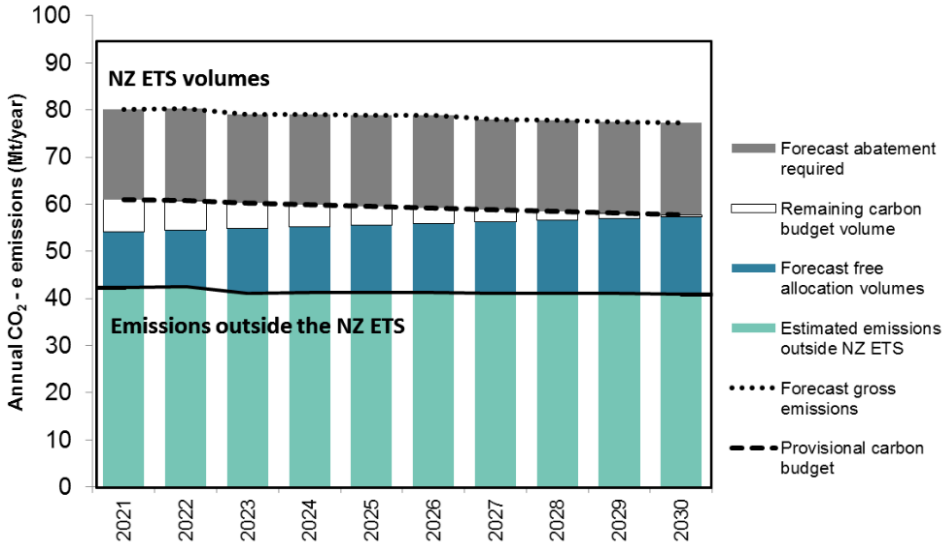
Emissions budgets

Under current settings, industrial allocation is forecast to use about 143 million NZUs in the ten years of New Zealand's first NDC. Figure 4 shows industrial allocation volume uses up a large share of New Zealand's emissions budget for 2021–2030.

There is uncertainty in this projection of industrial allocation volume, as it depends on assumptions about future economic growth. Nevertheless, the scale of industrial allocation is likely to contribute to increasing pressure on the 2021–30 emissions budget. This will put additional costs on all other sectors of the economy to meet New Zealand's emissions budgets.

[45] *Energy in New Zealand 2017*, Ministry of Business, Innovation and Employment.

Figure 4: Forecast of NZ ETS volumes and New Zealand's emissions budget for 2021–2030



New Zealand is required by the Paris Agreement to take on progressively more ambitious NDCs. New Zealand's next NDC (post-2030) will not be submitted until 2025. This means the emissions budget for post-2030 NDCs will need to step down to a lower level as compared to the emissions budget for 2021–2030. Therefore, whether or not industrial allocation is phased down over 2021–30, the amounts allocated after 2030 will need to be significantly lower than at present.

The cost of allocation

Allocating NZUs freely also has a fiscal cost to the Government. At current prices and demand levels, in 2019 industrial allocation will represent a fiscal cost of $235 million.[46] Projections indicate that this cost will increase over time as the production of eligible products continues to increase to meet demand, for example in the building industry.

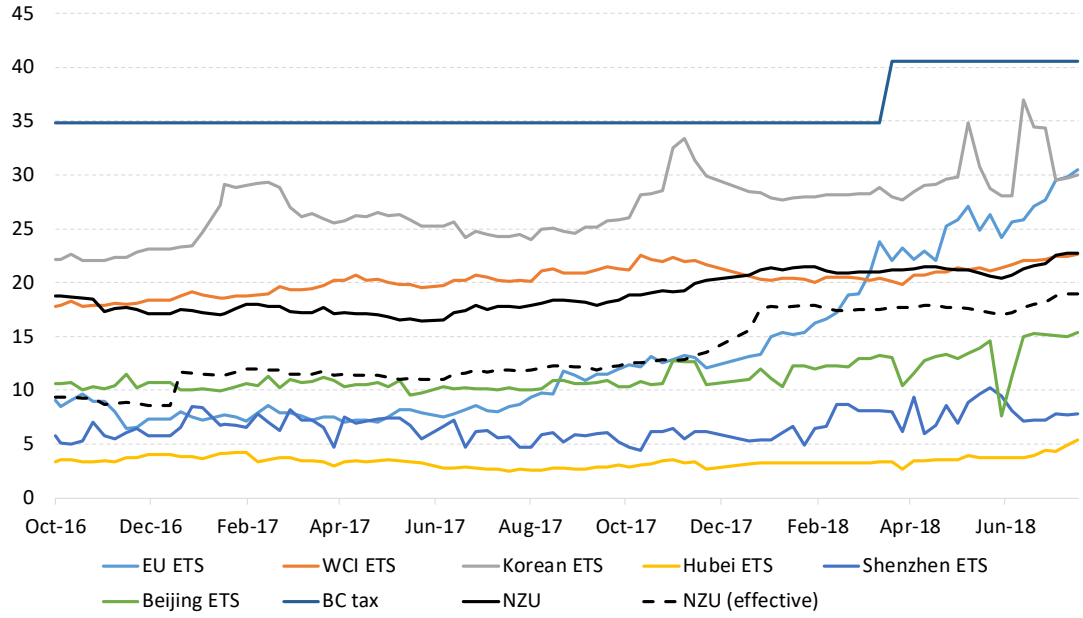
[46] 11.03 M NZUs × $21.35.

Appendix 3 – International emissions pricing

Figure 5 shows an illustrative sample of international emissions prices and has been included to inform NZ ETS stakeholders about the historical trends in emissions pricing in other countries. These prices will continue to evolve into the future and it is also likely that other emissions pricing schemes will emerge in the future.

The 'NZU (effective)' price shows the spot NZU price with a discount applied to take account of the phase out of the one-for-two transitional measure.

Figure 5: International emissions prices (NZD per tonne of carbon dioxide equivalent)



Source: Carbon Match, OMF Financial, Carbon Pulse

Appendix 4 – Detailed compliance analysis

Table 15: Experience administering low-level non-compliance

Experiences in administering low-level non-compliance	
Forestry	**Non-Forestry**
Since 2008, there has been a low level of compliance with the requirement to notify deforestation of pre-1990 forest land on time, with 29% of all notifications completed within required timeframes. Similarly, 7.5% of all known transfers of participation were notified within required timeframes. In total, 610 participants were non-compliant, and there will be further cases of non-compliance that have yet to be identified in addition to the numbers presented here. For the mandatory emissions return period 2008–2012, 95% of post-1989 participants filed returns, 135 participants were non-compliant. An increased level of non-compliance is expected in the current mandatory emissions return period (2013–2018) due to the high number of non-compliant transfers of participation still being resolved. Since inception, there have been 3 successful prosecutions with fines imposed in 2 of the 3 cases. The vast bulk of non-compliance was not prosecuted.	There has been annual variability in compliance with the requirement to file a mandatory emissions return. In the period 2012 to 2017, 8% of participants overall did not submit returns on time, ranging from 5% in 2016 to 12% in 2014. This can be further split: • agriculture[47] had a rate of non-compliance between 4% to 29% • non-agriculture (ie, all other non-forestry) had a non-compliance rate between 3% and 6%. There have been no prosecutions to date. A new NZ ETS Register went live in August 2016. The enforcement agency engaged intensively with participants and users to assist with the migration to the new system. This helped improve compliance for the 2016 period, but compliance in agriculture slipped back somewhat in 2017. While compliance has improved in recent years relative to five or more years ago, there remains an ongoing and variable low to moderate level of non-compliance.

Table 16: Experiences in administering the excess emissions penalty

Experiences in administering the excess emissions penalty	
Forestry	**Non-Forestry**
Since 2009, for all forestry activities, the enforcement agency: • amended over 500 submitted returns (5.3% of returns). This includes almost 300 amended returns for post-1989 forestry in the first half of 2018, 20% of the post-1989 forestry returns processed for this period • assessed over 300 missing returns (3.4% of returns) because the participant did not file the return as required • cancelled or declined over 600 returns (5.8% of returns) for reasons including being incomplete or submitted by an unauthorised person. Some of these assessments/amendments required repayments or increased unit surrender obligations and were subject to penalties. Of these, the average penalty reduction was more than 95%.	Between 2010–2016, 113 emissions returns were amended for incorrect information: • 35 participants made non-deliberate but not reasonable errors, and the penalty was reduced by between 1–99% • 78 participants made reasonable errors and the penalty was reduced by 100%. Three participants received excess emissions penalties for failing to surrender units by the due date. Where no penalty was applied, participants were reminded by letter/email of their obligations to correctly report emissions.

[47] Agriculture processors are required to submit annual emission returns, but not surrender units.

Table 17: Impacts of option 1 – Infringement offences

Affected parties	Comment	Nature of impact
Regulated parties (those with obligations under the ETS)	Infringement offences would provide certainty about the consequences of low-level non-compliant behaviour. Regulated parties may receive infringement notices and fees for non-compliant behaviour where they previously may not have received any sanction, though were eligible to. Infringement offences are strict liability, meaning infringement notices could be issued without needing to go to Court. We expect participant compliance to increase overall, with reduced repeat non-compliance.	There would be no increased costs on regulated parties who are compliant. Non-compliant parties who wish to be compliant may incur costs to engage consultants to advise and assist participants meet their obligations. NZ ETS costs would increase for non-compliant parties. A non-compliant incident previously considered 'reasonable' would become eligible to incur a penalty.
The enforcement agencies **(EPA)** **(MPI)**	An assessment of reasonableness would not be required for every failure to comply with the administrative provisions of the NZ ETS legislation (currently a penalty assessment is required). New enforcement costs could be less resource intensive than taking prosecutions, but will come with costs for administering an infringement scheme. System changes would be required to implement the regime (eg, one off creation of databases and forms). An increase in the price of emissions units may create pressure for non-compliance, requiring additional administrative compliance activity, with associated resource implications.	As non-compliant behaviour is sanctioned, it is expected that there would be greater compliance over time. This would reduce the administrative burden on regulators. Resources would need to be reprioritised to some extent within baselines, and potentially additional resources would be required in future.
Wider government/public	Infringement fees would be payable to the Crown for lower-level offending under the Act.	Variable expenses/revenues depending on the number of infringement offences and the overall level of compliance. The imposition of penalties for low-level non-compliance would protect the integrity of the NZ ETS.
Māori	Some iwi are affected by NZ ETS obligations through receipt of land and forests within Treaty Settlements that incur an NZ ETS obligation. This includes land held in Māori trust or in title arrangements with a multitude of customary owners.	The proposal does not create new obligations under the NZ ETS, but introduce new sanctions for non-compliance with those obligations. The proposal does not include any exemptions or different rules for Māori participants.
Other specific parties (Courts)	The proposal may reduce the potential prosecutions under the NZ ETS legislation (cost reduction). Infringements may be challenged or filed for enforcement in the courts (higher costs).	The impacts are expected to be minor or negligible (or offsetting). Prosecutions are rare currently, and significant infringement activity for the courts seems unlikely.

Table 18: Proposed sanctions for failures to comply with ETS and Synthetic Greenhouse Gases (SGG) levy requirements (from sections 129, 131, 259 and 260)

CCRA section	Proposed infringement offence	Proposed infringement fee	Proposed infringement fine	Current fines
s129(1)(a)	A person is a participant in any year and fails to comply with the section 62(a) requirement to collect the prescribed data or other prescribed information (which data or information must, if required by regulations made under the Act, be verified by a person or organisation recognised by the EPA under section 92).	$1,000 individual $2,000 body corporate	$3,000 individual $6,000 body corporate	$8,000 first conviction $16,000 second conviction $24,000 subsequent convictions
s129(1)(a)	No infringement offence is proposed for a failure to comply with section 62(b). This is because any failure to comply with section 62(b) will trigger an amendment or assessment under sections 120 or 121 and the excess emissions penalty process under section 134.	No infringement proposed	No infringement proposed	$8,000 first conviction $16,000 second conviction $24,000 subsequent convictions
s129(1)(a)	A person is a participant in any year and fails to comply with the section 62(c) requirement to, if required by regulations made under the Act, have the calculations verified by a person or organisation recognised by the EPA under section 92.	$1,000 individual $2,000 body corporate	$3,000 individual $6,000 body corporate	$8,000 first conviction $16,000 second conviction $24,000 subsequent convictions
s129(1)(a)	A person is a participant in any year and fails to comply with the section 62(d) requirement to keep, in the prescribed format (if any), records of the data or information and calculations.	$1,000 individual $2,000 body corporate	$3,000 individual $6,000 body corporate	$8,000 first conviction $16,000 second conviction $24,000 subsequent convictions
s129(1)(b)(i)	A person fails to notify the EPA under section 56 that the person is carrying out an activity listed in Schedule 3.	$1,000 individual $2,000 body corporate	$3,000 individual $6,000 body corporate	$8,000 first conviction $16,000 second conviction $24,000 subsequent convictions
s129(1)(b)(ii)	A person fails to submit an emissions return when required to do so under section 65, 118, 189, 191, or 193.	$1,000 individual $2,000 body corporate	$3,000 individual $6,000 body corporate	$8,000 first conviction $16,000 second conviction $24,000 subsequent convictions

CCRA section	Proposed infringement offence	Proposed infringement fee	Proposed infringement fine	Current fines
s129(1)(b)(iia)	A person fails to comply with the requirements relating to the calculation of, application for, or notification of an annual allocation adjustment or closing allocation adjustment under section 83 or 84, including where required to comply with section 84(1)(a) to (c) by the EPA under section 84(2)(c).	$1,000 individual $2,000 body corporate	$3,000 individual $6,000 body corporate	$8,000 first conviction $16,000 second conviction $24,000 subsequent convictions
s129(1)(b)(iii)	A person fails to keep records as required under section 67 or 86D; or by a fishing allocation plan; or by a pre-1990 forest land allocation plan.	$1,000 individual $2,000 body corporate	$3,000 individual $6,000 body corporate	$8,000 first conviction $16,000 second conviction $24,000 subsequent convictions
s129(1)(b)(iv)	A person fails to notify the EPA of a matter that is required to be notified under section 112.	$1,000 individual $2,000 body corporate	$3,000 individual $6,000 body corporate	$8,000 first conviction $16,000 second conviction $24,000 subsequent convictions
s129(1)(b)(v)	A person fails to notify the EPA, within the time required, of a matter required to be notified under section 84(2)(b) or 192(3).	$1,000 individual $2,000 body corporate	$3,000 individual $6,000 body corporate	$8,000 first conviction $16,000 second conviction $24,000 subsequent convictions
s131(1)(a) **s260(1)(a)**	A person fails to provide information to the EPA or an enforcement officer when required to do so under sections 94 or 253.	$1,000 individual $2,000 body corporate	$3,000 individual $6,000 body corporate	$12,000 on conviction for individuals $24,000 on conviction for body corporates
s131(1)(b) **s260(1)(b)**	A person fails to appear before the EPA or an enforcement officer, or fails to produce any document or documents, when required to do so under sections 95 or 254.	$1,000 individual $2,000 body corporate	$3,000 individual $6,000 body corporate	$12,000 on conviction for individuals $24,000 on conviction for body corporates
s259	A person who is an importer fails to comply with section 248(1) requirements to collect prescribed data or other prescribed information, keep records of the data or information in the prescribed format (if any), and keeps sufficient data to enable the EPA to verify, in relation to any levy year, the quantity of leviable goods of each class imported and the total amount of levy paid on those goods.	$1,000 individual $2,000 body corporate	$3,000 individual $6,000 body corporate	$8,000 first conviction $16,000 second conviction $24,000 subsequent convictions

Abbreviations

The Act	Climate Change Response Act 2002
CCR	Cost Containment Reserve
CCRA	Climate Change Response Act 2002
CO_2-e	Carbon dioxide equivalent
EITE	Emission Intensive Trade Exposed
EPA	Environmental Protection Authority
FMCA	Financial Markets Conduct Act 2013
FPO	Fixed Price Option
MfE	Ministry for the Environment
MPI	Ministry for Primary Industries
NDC	Nationally Determined Contribution
NZ ETR	New Zealand Emissions Trading Register
NZ ETS	New Zealand Emissions Trading Scheme
NZU	New Zealand Unit
SGG	Synthetic Greenhouse Gases
UEF	Unique Emissions Factor
ZCB	Zero Carbon Bill

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