



Parliamentary Commissioner for the Environment
Te Kaitiaki Taiao a Te Whare Pāremata



Adrift: What future does the Emissions Trading Scheme have?

Summary document

August 2026

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The statutory purpose of the New Zealand Emissions Trading Scheme (NZ ETS) is to contribute to meeting New Zealand's three key climate mitigation commitments – its international commitments, the domestic 2050 target and domestic emissions budgets. The NZ ETS is touted as New Zealand's premier climate change policy. But how well is it doing its job?

Previous work by the office of the Parliamentary Commissioner for the Environment (PCE) has, on repeated occasions, questioned whether the NZ ETS, as designed, is capable of playing a central role in helping to achieve New Zealand's climate targets. Particular attention was drawn to risks that unlimited recourse to forestry units in the NZ ETS presents now and into the future, calling into question whether, as a policy instrument, the NZ ETS even has a future in its current form.

Questions about the effectiveness of the NZ ETS have been raised by others, including He Pou a Rangi – Climate Change Commission (CCC). In its recent monitoring report, the CCC warned that the second emissions budget is at significant risk of not being met and that meeting emissions budget three is off track.¹ New Zealand is also projected to miss its first and second nationally determined contributions (NDCs) by a significant margin (around 86 megatonnes of carbon dioxide equivalent (Mt CO₂e) for NDC1 and between 13 and 33 Mt CO₂e for NDC2).²

The purpose of this PCE report is to enable parliamentarians and other policy makers to examine the issues facing the NZ ETS and to start a more informed conversation about its future.

The report concludes that the NZ ETS is essentially rudderless. It is at risk of being swamped by unit supply, but the Government lacks the levers to effectively manage that supply. As a result, the Government is unable to use the NZ ETS to ensure that New Zealand delivers on its various climate targets.

The report calls for a review now because deferral will simply make the inevitable reform harder and more costly.

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- 1 CCC, 2026. Monitoring report: Emissions reduction. Assessing progress towards meeting Aotearoa New Zealand's emissions budgets and the 2050 target. www.climatecommission.govt.nz/assets/Monitoring-and-reporting/ERM-2026/CCC-6233-ERM-2026_FA2_web.pdf
 - 2 New Zealand Treasury, 2026. Treasury Paper 26/01: New Zealand's Nationally Determined Contributions – Potential Fiscal Costs Associated with Offshore Mitigation – June 2026. www.treasury.govt.nz/sites/default/files/2026-06/tp-26-01-ndc-fiscal-costs.pdf



How the NZ ETS works

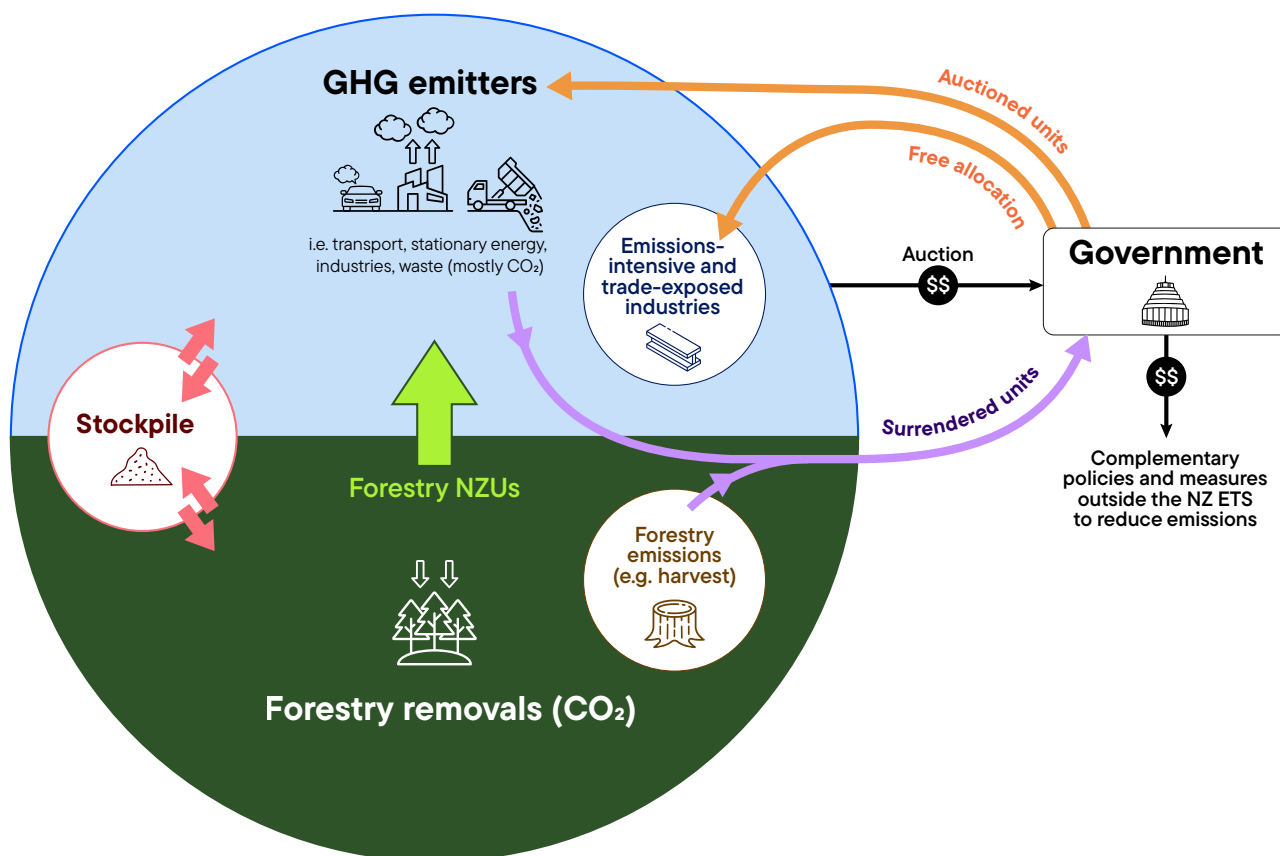
The NZ ETS puts a price on greenhouse gas emissions (GHGs). Businesses that emit GHGs must report on their emissions and surrender New Zealand Units (NZUs) to cover them. This creates a financial incentive to reduce emissions, improve efficiency, and invest in lower-carbon technologies. NZUs circulate in a carbon market in which:

- forestry owners can earn NZUs by growing forests that absorb carbon
- NZUs can be bought and sold between NZ ETS participants and investors
- companies that emit can buy NZUs to meet their obligations.

Not all New Zealand businesses are direct participants. The obligation is generally placed upstream with entities such as fuel suppliers, energy companies, major industrial emitters, waste operators and some forestry participants. But the NZ ETS's costs flow down from these points of obligation through the economy and affect most businesses indirectly.

Most emissions trading schemes around the world focus primarily on reducing gross GHG emissions. The NZ ETS is unusual because it includes forestry and focuses on net emissions. Forestry owners earn carbon credits from growing trees, and those credits can then be used by other businesses to offset their emissions. The creation and use of forestry units within the NZ ETS is essentially unlimited.

Design of the New Zealand Emissions Trading Scheme



Forestry and the NZ ETS

Forestry in the NZ ETS is governed by a complex set of rules and carbon accounting. In brief, the NZ ETS allows a tonne of fossil carbon released into the atmosphere to be traded for a tonne of carbon sequestered in trees. While foresters can earn credits for sequestering carbon, which can be traded, these credits must be paid back if that carbon is lost to the atmosphere.

There are two broad categories of forests in the NZ ETS – ‘standard forests’, generally managed as regular rotation clear-fell crops for their timber and fibre, and so-called ‘permanent forestry’, which is not clear-fell harvested and is managed only for revenue from carbon sequestration.

Pricing the carbon stored in forests both discourages the removal of existing forests and encourages the planting of new ones. Since 1990, the size of the exotic forestry estate has changed from 1.3 million hectares to 1.8 million hectares – a 38% increase.³ The NZ ETS can take credit for much of this increase, certainly in recent years. Since the NZ ETS began in 2008, there has been a strong positive correlation between the price of carbon and the rate of exotic afforestation. In recent years, afforestation has been at historically high rates. The vast majority of forests registered in the NZ ETS are exotic *Pinus radiata*, although the proportion of native forests is increasing.

Looking through a short-term lens, NZ ETS-driven afforestation has helped New Zealand meet its first emissions budget. However, the use of forestry removals means that some carbon dioxide emitting businesses today are effectively paying foresters to store their past, present and future emissions in forests, rather than reducing their gross emissions.

Such reliance on forestry creates major risks over the longer term.

1. Permanence risk

The NZ ETS assumes that a tonne of carbon stored in a forest can offset a tonne of fossil carbon emitted elsewhere. While that may work for accounting purposes, the physical reality is different. Critical to that assumption is that there is equivalence between the emission and the sequestration. There isn't, because the timescales are very different. Fossil carbon remains in the atmosphere for centuries to millennia. This means a forest planted to offset carbon dioxide needs to be effectively permanent. But forests are not. They can burn, be damaged by storms, succumb to pests or disease, or be removed entirely. Climate change itself is increasing the frequency and severity of many of these threats. The risk is most pronounced for the so-called ‘permanent forestry’ category of the NZ ETS.

2. Loss of option value

Forestry is increasingly influencing land-use decisions across New Zealand. At carbon prices above approximately \$40 per tonne, forestry often becomes more profitable than sheep and beef farming on many land classes.⁴ Government projections already anticipate around 700,000 hectares of additional afforestation by 2050.⁵ Because those forests need to remain permanently, land is effectively locked up in perpetuity.

This creates concerns around loss of productive farmland, reduced flexibility for future land uses, change to rural communities and increased reliance on permanent carbon forests.

Continued reliance on forestry rather than reducing gross emissions will require more and more afforestation.

3 NZFFA et al., 2025. National Exotic Forest Description as at 1 April 2025.
www.mpi.govt.nz/forestry/forest-industry-and-workforce/forestry-wood-processing-data/new-zealand-forest-data

4 Concept Consulting, 2026. Carbon Price Projections under the NZ ETS. Wellington: Concept Consulting Group Limited.

5 MfE, 2026, p.71. New Zealand's second emissions reduction plan 2026–30: Technical annex – Amended January 2026.
<https://environment.govt.nz/assets/publications/climate-change/ERP2/New-Zealands-second-emissions-reduction-plan-Technical-annex-Amended-January-2026.pdf>

3. Fiscal risk

Reliance creates growing liabilities. If forests fail, become uneconomic to maintain, or are abandoned, the climate obligation does not disappear. Foresters and landowners – particularly ‘permanent carbon foresters’ – may not meet their liabilities once the revenue stream from carbon sequestration dries up. In those cases, responsibility ultimately shifts to the Crown through replacement planting, additional emissions reductions elsewhere, or failure to achieve domestic and international commitments.

The NZ ETS effectively shifts an increasing amount of climate risk forward in time, creating obligations that future taxpayers may be required to manage.

4. Market-management risk

While the Government can control auction volumes, it cannot directly control future forestry registrations, harvest decisions, de-registrations, conversion to permanent forestry or carbon sequestration volumes. This makes it increasingly difficult to manage the NZ ETS to align with specific climate objectives. A particular risk is around rotation forests on stock-change accounting. Their owners could choose, without any requirement to notify anyone, not to harvest the forests so they become de facto permanent forests, thereby generating significantly more NZUs.



Supply and demand in the NZ ETS – trouble ahead

Where we are now

As currently designed, there are three main sources of new NZUs in the NZ ETS:

- units auctioned by the Government at quarterly auctions
- units freely allocated to emissions-intensive and trade-exposed (EITE) industries
- forestry units earned by foresters for sequestered carbon.

The market is also supplied by the large stockpile of units that have not yet been used and are held by NZ ETS participants and private account holders. The stockpile was estimated to be 121.2 million units as of May 2026,⁶ of which approximately 29.7 million units – equivalent to about one year of emissions covered by the NZ ETS – were considered ‘surplus’ (i.e. not needed to cover surrender obligations).⁷

Since March 2023, all but two auctions have failed to clear because there is sufficient supply from both the current stockpile and forestry units in the market to meet current and near-future demand. The quantity of surplus units in the stockpile has been decreasing, and there may be a window in the late 2020s of constrained supply. However, that window is likely to be short.

The Government has announced that the number of NZUs it intends to auction will decline from 4.3 million NZUs in 2027 to 1.1 million in 2031.⁸ Extrapolating the current trajectory would see almost no units auctioned by 2034. In other words, from sometime in the mid-2030s onwards the Government will have little or no influence over unit supply (and therefore price) in the NZ ETS. Neither will the Government be in a position to benefit from any auction proceeds beyond that point.

From the early 2030s, forestry will become the primary source of units in the NZ ETS. Although with auctions currently failing to clear, forestry is arguably already (or soon will be) the largest source of supply. The supply of those units will depend entirely on the actions foresters take – or choose not to take – in respect of NZ ETS registered forests. Those choices include how much they want to plant, their harvesting intentions, and when to register or deregister forests from the scheme. It is very difficult to predict with any certainty how those future choices will flow through into NZ ETS unit supply and price, let alone set the NZ ETS to meet any specific climate objective.

6 EPA, 2026. Privately held units. www.epa.govt.nz/industry-areas/emissions-trading-scheme/market-information/privately-held-units

7 CCC, 2026, p.64. Advice on NZ ETS unit limits and price control settings for 2027–2031. www.climatecommission.govt.nz/assets/ETS-advice/2026/ETS-Settings-2026-Full-Report_web.pdf

8 MCERT, 2026. Annual updates to emission unit limits and price control settings. <https://environment.govt.nz/what-government-is-doing/areas-of-work/climate-change/ets/nz-ets-market/annual-updates-to-emission-unit-limits-and-price-control-settings>

Where we are heading

Modelling commissioned by PCE projects that if the NZ ETS continues with its current design and settings:

- the carbon price will initially rise but then fall to levels below that required to encourage afforestation
- gross emissions reductions occur, but only slightly faster (3–4%) than they would in a scenario where the carbon price is effectively zero
- net emissions might fall briefly below zero, allowing New Zealand to reach net zero, but are likely to rise again after 2050 – as a result, the legal requirement to achieve and also maintain net zero will not be met.⁹

The NZ ETS is unable to deliver substantial gross emissions reductions while simultaneously failing to provide an enduring pathway for maintaining net emissions targets over time.

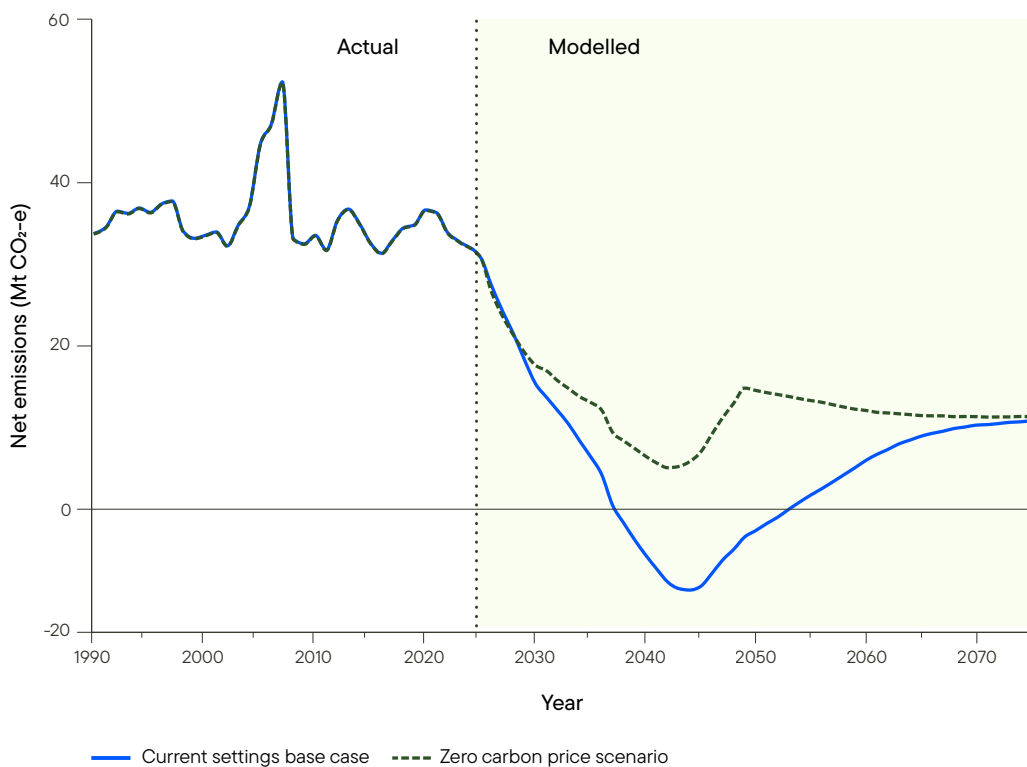
What is driving the NZ ETS's ineffectiveness?

The modelling illustrated that the initial higher carbon prices create a paradox. In theory, higher carbon prices should accelerate emissions reductions. In practice, they also encourage more forestry. More forestry generates more NZUs, which eventually suppresses prices and weakens the emissions reduction signal.

The very mechanism helping New Zealand meet climate targets in the short term undermines the ability of the NZ ETS to drive long-term emissions reductions.

The modelling explored numerous alternatives, including stronger forestry restrictions, increased demand for units, and changes to forestry participation. While some scenarios delivered marginal improvements, none demonstrated that modest adjustments could solve the underlying problems.

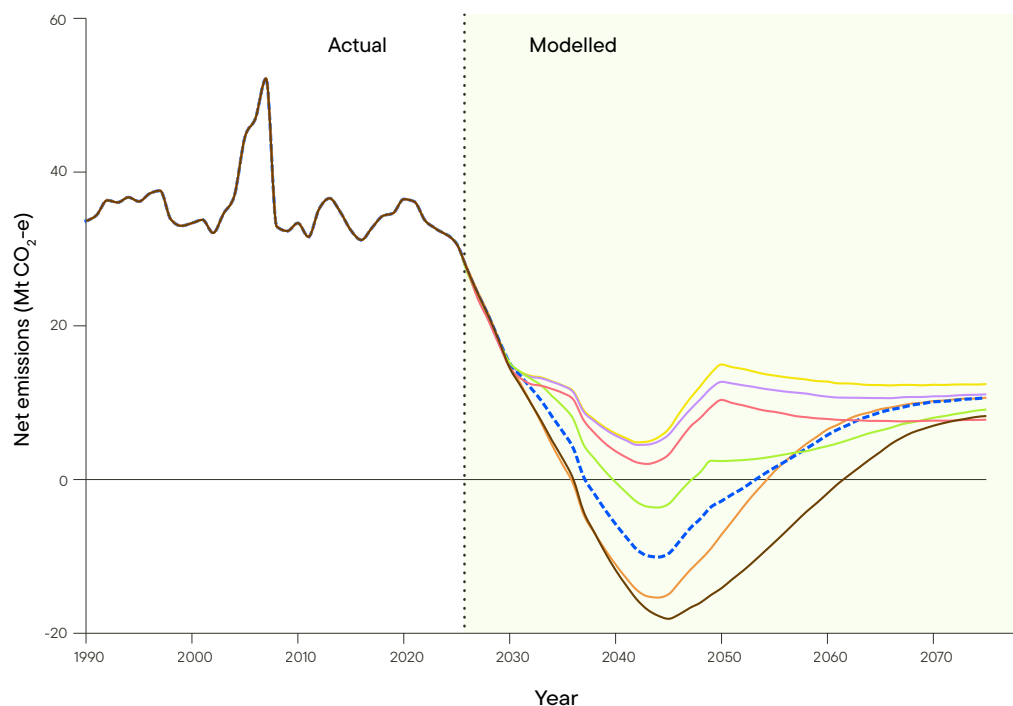
Net emissions of long-lived gases plus non-biogenic methane (using target accounting) under current NZ ETS settings (base scenario) and the zero price scenario



Source: Based on Figure 14 from Concept Consulting (2026, p.28)

9 Concept Consulting, 2026. Carbon Price Projections under the NZ ETS. Wellington: Concept Consulting Group Limited.

Modelled net emissions of long-lived gases plus non-biogenic methane (using target accounting) for scenarios restricting forestry to varying degrees. Only some scenarios met the first leg of the 2050 target, none maintained the 2050 target over the longer term



Source: Based on Figure 14 from Concept Consulting (2026, p.28)



Climate policy and NZ ETS-driven risks

What does all this mean for New Zealand's climate policy?

The current design of the NZ ETS, without effective levers, cannot achieve whatever climate objectives New Zealand might set. It cannot deliver:

- **a minimal and low-cost contribution to international climate action**

This is because the NZ ETS is overdelivering afforestation at the wrong times. While the target might be met initially, the modelling shows it won't be maintained. Initial achievement of the target might seem cheap, but significant ongoing costs are created.

To avoid a future emissions pulse, there is a need to ensure that the forests used for offsetting maintain their carbon stocks in perpetuity. There is a cost to that, which will increase in the face of mounting risks from fires, pests, diseases and extreme weather. More afforestation will also be needed to offset the continuing gross emissions.

Either the Government will need to maintain an impotent NZ ETS far into the future to ensure that foresters retain their deforestation liabilities, or it will have to take over liability for the carbon in those forests itself. This may occur in any case if foresters find it cheapest to walk away from their commitments. Either way, there will be costs to future generations.

- **more ambitious climate targets**

The NZ ETS is unable to deliver a steadily rising carbon price to drive gross emissions reductions because incentivised afforestation suppresses prices. Increasing demand (for example, by including the long-lived emissions of sectors such as agriculture that are currently outside the NZ ETS) would simply drive more afforestation, bringing with it the increased risks outlined above of a large carbon forestry estate.

- **the achievement of strong net emissions reductions using forestry**

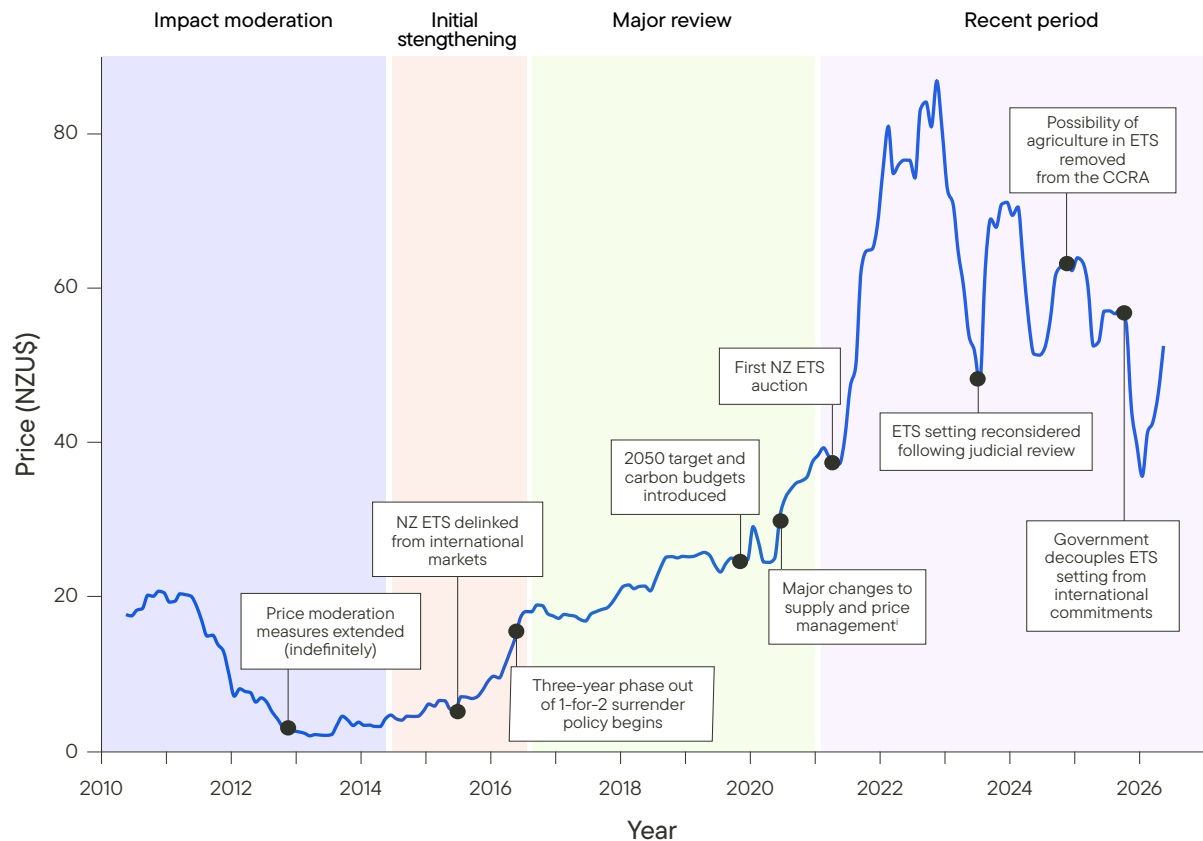
While the NZ ETS currently delivers prices suitable for foresters, these prices will collapse over time, risking the returns that some foresters, particularly those with permanent carbon forests, might be relying on. Large areas of carbon forests create environmental, fiscal and social risks for future governments that will need to be addressed. A future government may need to make significant and abrupt policy corrections, generating investment uncertainty for foresters.

- **control over the scale or type of the land-use change to forestry that the NZ ETS drives**

Persistently low carbon prices will slow reductions in gross emissions, meaning a larger forestry estate will need to be planted over time. The forestry estate will expand with little control over where NZ ETS-driven forestry will be planted or the type of trees that will be planted. It implies a level of land-use change that will bring significant economic and social transition challenges in its wake. Given the high costs involved in converting land back from forestry it is unlikely that such shifts in land use will be easily reversed.

In short, the NZ ETS, as currently structured, does not work for anyone's climate objectives, including New Zealand's existing commitments. The NZ ETS is hindering the achievement of New Zealand's 2050 net zero emissions target. In the shorter term, achievement of the second and third emissions reduction budgets and the international NDC commitments are at significant risk.

NZU price and timeline of major changes to the NZ ETS from 2008 to today



ⁱ Auctioning introduced, increased industrial free allocation phase out, forestry accounting rules changed.

Source: Based on data from Theecanmole (2026) and policy information from Leining (2026)



What should be done?

As can be seen in the timelines, some major policy shifts occurred in the first 15 or so years of the NZ ETS. These came about as governments of the day encountered issues managing supply and demand in the NZ ETS. New supply and demand concerns will materialise in the 2030s, making another change inevitable. What is clear from our analysis is that major reform of the NZ ETS is needed if it is to help meet New Zealand's 2050 target and other climate commitments. Minor tinkering will not fix the problems.

Clarifying New Zealand's climate policy

Before embarking on any reform of the NZ ETS, the Government should clarify what the NZ ETS is intended to achieve and the goal of climate policy generally. A renewed debate is overdue.

If we are serious about meeting both our international and domestic commitments, then we need a plan. The NZ ETS could focus on reducing gross emissions (which would mean forestry was progressively removed entirely) or continue to focus on net emissions (but with controls to better align what the NZ ETS delivers with New Zealand's climate targets), or anywhere in between those two extremes.

Just because, like other countries, New Zealand includes forestry in its international accounting, it does not follow that the NZ ETS has to include forestry. Using the NZ ETS as a net emissions tool was a deliberate choice. Confining the NZ ETS to addressing gross emissions – or at least tilting it back in that direction – would be an equally deliberate choice.

Major reform of the NZ ETS is needed

Reform of the NZ ETS should focus on achieving a steadily rising carbon price to drive investment in decarbonisation and drive down gross emissions. The modelling showed that neither modest restrictions on forestry nor increasing demand is sufficient. A rising price can only be achieved by more significantly restricting the role of forestry in the NZ ETS.

There are many options for reforming the NZ ETS, which are discussed at greater length in the report. Key options worthy of further consideration are, in some combination:

- controlling the amount of stock-change forestry that can switch to being permanent
- greater regulation of permanent forestry overall
- decoupling the price paid by emitters in the NZ ETS from that received by foresters
- progressively removing forestry completely from the NZ ETS
- purchasing additional afforestation outside the NZ ETS.

None of the options are straightforward, and each has its own risks, winners and losers. Change of this magnitude requires careful analysis and debate. To inform all this we will need to invest in better models than we have at the moment, as current models are designed for studying incremental changes, not the major design reforms that are needed.

The suggestion of significant changes to forestry's treatment in the NZ ETS will be confronting, especially for those with forestry interests and some Māori landowners. They have legitimately made significant investments based on policy settings that date back at least 15 years and, in terms of New Zealand's advocacy for a net approach, date back to the 1990s. If changes are made, consideration should be given to potential compensation (to the best of the Crown's ability) for foresters who have made their investments in good faith.

Forestry still has an essential role – but outside the NZ ETS

While the Commissioner's view is that forestry should be removed from the NZ ETS, it does not follow that forestry should be excluded from New Zealand's climate response. Without forestry, meeting current targets becomes considerably more difficult. The question is not whether forestry has a role – it is whether that role should continue to be delivered through the NZ ETS.

Potential alternatives include:

- afforestation outside the NZ ETS funded either by the Government, including through future NZ ETS auction proceeds, or through the voluntary market – mainly driven by private companies wanting to offset their emissions for corporate reputational purposes
- policies to optimise the opportunities from wood (as a structural product) and biomass (as an energy source)
- harnessing the carbon sequestration superpower of *Pinus radiata* as a feedstock for geological carbon storage through bioenergy carbon capture and storage (BECCS). That would help overcome the permanence issues of storing carbon in trees and would assist our energy independence
- using forestry to offset agricultural methane emissions outside the NZ ETS – there is a much better match between the atmospheric life of biogenic methane and rotation pine forests. This would help New Zealand tackle its significant agricultural emissions that sit outside the NZ ETS.¹⁰

Such approaches could preserve forestry's contribution while reducing the risks created by its unlimited inclusion in the carbon market itself.

Time is no longer on New Zealand's side

Forestry has become both the principal mechanism keeping the NZ ETS functioning and the principal source of risk within it. Every year of continued afforestation adds future unit supply, increases future liabilities, and narrows future policy options. The modelling showed that relatively small increases in expected afforestation significantly alter future market outcomes.

Addressing these issues is becoming increasingly urgent. The scale and complexity of what is at stake, however, makes it very difficult even to commence a conversation let alone propose solutions. That has to change, and change soon, if New Zealand is to avoid outright policy failure leading to dashed expectations and a costly upheaval. Avoiding the problem won't make it go away. It will simply make it harder and more costly to solve.

¹⁰ PCE, 2022. How much forestry would be needed to offset warming from agricultural methane. <https://pce.parliament.nz/media/03bpa3sn/how-much-forestry-would-be-needed-to-offset-warming-from-agricultural-methane.pdf>

Recommendations

The Commissioner recommends that policy makers take the following actions.

Commit to a major review of the NZ ETS and clarify the goals of climate policy.

- 1 | Secure cross-party agreement that the NZ ETS is in need of major reform.
- 2 | The Minister of Climate Change, with support from opposition parties, should direct officials to begin policy analysis, modelling and options analysis for reform now.
- 3 | Renew engagement focused on winning cross-party agreement on the broad strokes of what a climate strategy should look like, if not its detail.

Fundamental questions about the balance between gross and net emissions reductions, the role of forestry, and the role of the NZ ETS relative to other 'complementary' climate policies should be revisited.

Place a temporary halt on forestry in the NZ ETS to buy time.

- 4 | Place a temporary moratorium on new NZ ETS forestry registrations until the major review has been completed and decisions made on its recommendations.
- 5 | Change the NZ ETS forestry rules for stock-change forests to prevent them from becoming de facto permanent forests.
- 6 | Change the NZ ETS rules for permanent forests to limit their use to native afforestation on erosion prone and marginal land.
- 7 | Rule out any new types of biological offsetting in the NZ ETS, at least until the review has been completed and decisions made on its recommendations. It does not make sense adding additional supply to an already oversupplied market.

Reimagine forestry's role in climate mitigation policy.

- 8 | Alongside a major review of the NZ ETS, the Government should develop options for the alternative roles forestry might play in New Zealand's climate mitigation efforts. Any decisions on those roles should be made in tandem with any changes resulting from a review of the NZ ETS.



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