



Te urupare a te kāwanatanga ki te pūrongo a He Pou a Rangi Government response to the Climate Change Commission report

Monitoring report: Emissions reduction
2024



Te Kāwanatanga o Aotearoa
New Zealand Government

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Introduction

The Climate Change Response Act 2002 (the Act) provides the framework by which New Zealand develops and implements clear and stable policies that:

- contribute to global efforts to limit global average temperature increase
- allow New Zealand to prepare for and adapt to the effects of climate change.

The framework sets New Zealand's domestic long-term emissions reduction targets through to 2050, providing for a series of interim targets, or five-year emissions budgets, which act as 'stepping stones' towards the 2050 target.

He Pou a Rangi | Climate Change Commission (the Commission) has an independent role, which is to regularly monitor and report on progress towards meeting an emissions budget and the 2050 target.¹ As part of this role, the Commission must produce an annual monitoring report that includes:²

- how the country's emissions and removals are tracking
- the latest projections for current and future emissions and removals
- an assessment of the adequacy of the Government's current emissions reduction plan and its implementation.

The Government welcomes the Commission's inaugural emissions reduction monitoring report (ERM Report), received in July 2024.³ On receipt of the ERM Report, the Act requires the Minister of Climate Change to present a report to the House of Representatives that:⁴

- sets out the response to the ERM Report and recommendations
- describes the progress made in implementing the current emissions reduction plan
- notes any amendments to that plan.

This report forms the Government's response to those requirements.

¹ Climate Change Response Act 2002, section 5ZJ.

² Climate Change Response Act 2002, section 5ZK.

³ Climate Change Commission. 2024. *Monitoring report: Emissions reduction – Assessing progress towards meeting Aotearoa New Zealand's emissions budgets and the 2050 target*. Wellington: Climate Change Commission.

⁴ Climate Change Response Act 2002, section 5ZK(4).

Government's strategy to reduce emissions

The Government is committed to meeting New Zealand's domestic climate change targets. We must reduce net greenhouse gas (GHG) emissions to play our part in preventing additional global warming. New Zealand can maximise the opportunities that come from the transition to a net zero economy.

Our climate strategy is about New Zealand reaching its economic, social and environmental potential by taking proactive steps to reduce net GHG emissions. The strategy focuses on five pillars, as set out in figure 1.

Figure 1: Five pillars of the climate strategy



This government's approach to achieving New Zealand's emissions reduction goals is a least-cost,⁵ net-based approach, using effective and efficient policies. We will use a technology-led approach to allow production to increase as emissions come down. We will rely on a credible emissions trading scheme, complemented by policies that reduce barriers to investment in emissions reductions and removals.

Government Target 9

In April 2024, Cabinet set nine government targets, to focus the public sector on achieving improved results in health, law and order, work, housing and the environment. Target 9 is reduced net GHG emissions and aligns with the first and second emissions budgets and the 2050 net zero target:

On track to meet New Zealand's 2050 net zero climate change targets with total net emissions of no more than 290 megatonnes from 2022 to 2025 and 305 megatonnes from 2026 to 2030.

⁵ 'Least-cost' refers to minimising the overall cost to the nation of reducing emissions and shifting to net zero by 2050. The costs considered include costs to businesses and households investing in gross emissions reduction, fiscal costs to the Government, and the wider costs or benefits from changes to the things people value, such as clean air.

New Zealand's climate targets and budgets

New Zealand has legislated domestic emissions reduction targets under the Act:

- net zero emissions of all GHG emissions other than biogenic methane by 2050
- a 24 per cent to 47 per cent reduction below 2017 biogenic methane emissions by 2050, including a 10 per cent reduction below 2017 biogenic methane emissions by 2030.⁶

The first three emissions budgets that step New Zealand towards its climate targets were published in May 2022 and are presented in table 1. The net emissions are expressed in megatonnes of carbon dioxide equivalent (Mt CO₂e).

Table 1: New Zealand's first three emissions budgets

Emissions budget period	2022–25	2026–30	2031–35
All gases, net (AR5) ⁷	290 Mt CO ₂ e	305 Mt CO ₂ e	240 Mt CO ₂ e
Annual average	72.5 Mt CO ₂ e	61 Mt CO ₂ e	48 Mt CO ₂ e

The first emissions reduction plan (ERP1) was also published in May 2022. It sets out the policies and strategies to cover the first emissions budget (EB1), which will finish at the end of 2025.⁸ At the time of preparing this response, the Government has recently concluded its public consultation on the second emissions reduction plan (ERP2) to meet the second emissions budget (EB2) (for 2026 to 2030).

Implementing the first emissions reduction plan

The Act requires the Minister of Climate Change to prepare and publish emissions reduction plans, setting out the policies and strategies for meeting each emissions budget. The ERP1 was released in May 2022 and covers the EB1 period (2022 to 2025).

The Climate Change Chief Executives Board (the Board) monitors and reports to Ministers regularly on progress made by agencies responsible for implementing actions in ERP1, informed by data and commentary supplied by agencies. All progress reports are published on the Board's website.⁹

The Board's most recent monitoring of ERP1 implementation records mixed progress. Of the 305 actions, more than half are either complete or actively being implemented, though a small number of actions (4 per cent, or 11 actions) have not yet started to be implemented. Thirteen per cent of actions (41 actions) have been discontinued.¹⁰ Six actions were discontinued by the previous government and 35 actions have been discontinued by the current government because they do not align with the Government's approach to meeting emissions budgets or climate change priorities, or had no effect on emissions abatement.

⁶ The Government has started an independent review of the methane science and targets for consistency with no additional warming from agricultural emissions. An independent panel will report back by the end of 2024.

⁷ The [Intergovernmental Panel on Climate Change Fifth Assessment Report](#) is referred to as 'AR5'.

⁸ Climate Change Response Act 2002, section 5ZG.

⁹ Ministry for the Environment. [Climate Change Chief Executives Board](#).

¹⁰ As have been made available in the discussion document on the second emissions reduction plan.

Completed actions include updating electricity demand and generation scenarios; publishing the 'approved list' of smart electric vehicle chargers that meet specifications for connectivity and efficiency; and completing research on the need for, and implementation of, additional market mechanisms to accelerate the transition to a highly renewable energy system.

The Government's July 2024 interim emissions projections show the potential cumulative effect of those ERP1 actions that have been discontinued are not expected to materially affect our ability to meet EB1 (see [table 2](#)). As such, our current assessment is that ERP1 remains sufficient to meet EB1.

The second plan, ERP2, is due to be released by the end of 2024. This will include updated emissions projections and will set out the pathway and actions we will take to meet EB2. Work will then begin on the implementation of ERP2, to ensure momentum and effort are maintained towards meeting future targets and budgets.

Amendments made to the first emissions reduction plan

The Government is undertaking a process to formally amend ERP1.¹¹ Public consultation on the change in approach to meeting EB1 was included in the July 2024 discussion document for ERP2. We are considering the submissions received through that public consultation, and relevant findings contained in the Commission's ERM Report. Any formal amendments to ERP1 following this are expected to be published later this year.

¹¹ As provided in the Climate Change Response Act 2002, section 5Z1(3).

Response to the Climate Change Commission's emissions reduction monitoring report

The Government welcomes the Commission's inaugural ERM Report. The Commission is required to independently monitor and report annually on the Government's progress towards meeting the 2050 target, progress against emissions budgets and emissions reduction plans. The Commission's report is timely and is being considered as part of the development of ERP2.

Overview of the ERM Report and key findings

The Commission has developed a framework for emissions reduction monitoring that focuses on outcomes, looking for early signals of change and taking a long-term systems view. This includes:

- assessment of progress on emissions reductions using the Commission's 2022 demonstration path as a benchmark
- historical data to report progress towards meeting emissions budgets, supported by wider real-world indicators
- assessment of government plans and policies using a 'policy scorecard' to assess significant sectors.

The ERM Report contains the following four key high-level findings.

1. Gross emissions have declined each year since 2019, in response to policy efforts combined with external factors.
2. Available emissions data and projections are consistent with the first emissions budget being met. This is, however, highly uncertain. Risk factors such as deforestation, dry years, and rising transport emissions could result in net emissions exceeding the budget. Further action to reduce emissions would decrease the risk of missing the budget.
3. There are significant risks to meeting the second and third emissions budgets and the 2030 biogenic methane target under current policies.
4. Our assessment shows an urgent need to strengthen policies and strategies to put Aotearoa New Zealand on track to meet future emissions budgets and the 2050 target, including the 2030 biogenic methane target. We identify a range of opportunities to work towards these climate goals.

The key findings are underpinned by more detailed analysis and findings on matters such as:

- indicators to measure real-world progress
- sector-based monitoring maps to connect policies to outcomes
- analysis of ERP policies and plans
- data gaps
- opportunities to work towards New Zealand's climate goals.

Data and modelling differences between the ERM Report and recent government reporting

Some differences exist in the data used by the Commission and its modelling approach to what has been used in government reporting.

The Government’s first Target 9 report¹² includes emissions projections based on existing policies and actions to reduce emissions. The Government’s July 2024 interim emissions projections (published in the July 2024 ERP2 discussion document) account for the additional abatement possible if the proposed ERP2 policies and actions were implemented. These are provided in table 2.¹³

Table 2: Target 9 projections and interim (including ERP2) emissions projections as at July 2024

Emissions budget limits	Target 9 projections (with existing measures, without proposed ERP2 policies)	Interim projections at July 2024 with proposed ERP2 policies (central estimate*)	Uncertainty range for interim projections
First emissions budget 290 Mt CO ₂ e	284.0 Mt CO ₂ e	284.0 Mt CO ₂ e	±4 Mt CO ₂ e
Second emissions budget 305 Mt CO ₂ e	307.1 Mt CO ₂ e	303.3 Mt CO ₂ e	±18 Mt CO ₂ e
Third emissions budget 240 Mt CO ₂ e	N/A	257.4 Mt CO ₂ e	±29 Mt CO ₂ e

* ‘Central estimate’ refers to the value believed to be most likely based on the current understanding of relevant assumptions.

Due to its timing, the Commission’s report was unable to include the proposed policies or July 2024 government interim emissions. The Government’s Climate Strategy, with its revised approach to meeting emissions budgets and targets, also was not available to the Commission at that time.

The Commission used publicly available emissions data and information on government policies up to April 2024, and based its assessment of progress using that data against its benchmark demonstration path (originally developed for ERP1). It was logical for the Commission to gauge the pace of progress against its demonstration path, given it was used as a plausible path to inform the previous government’s approach to ERP1.

¹² Ministry for the Environment. [First report on Government Target 9 released.](#)

¹³ Emissions projections are inherently uncertain and emissions are influenced by variables beyond the Government’s control. These variables include external factors, such as dry/wet years affecting hydro inflows, commodity prices, advancements in emissions measurement (methodology), and the implementation of emissions reduction policies.

Adopting a net-based approach and role of the New Zealand Emissions Trading Scheme

As mentioned above, the Commission used its 2022 demonstration path to assess progress in different sectors against an anticipated level of abatement (focused on driving gross emissions reductions in sectors). Alternatively, the Government is now taking a net-based approach to meeting emissions budgets, balancing emissions reductions and removals to achieve lower overall emissions.

Emissions pricing through the New Zealand Emissions Trading Scheme (NZ ETS) is the main tool to determine where and how to reduce emissions and increase removals at the least cost across the sectors in the scheme. The NZ ETS aims to incentivise private investment in reducing emissions and removing carbon. Current and expected future NZ ETS prices help inform today's investment decisions; these will be key to New Zealand reaching its targets.

The ERM Report reinforces the Commission's view that continues to be (as in its previous advice in December 2023) that the NZ ETS cannot be relied on to ensure emissions budgets will be met. While the NZ ETS cannot drive set abatement within an emissions budget period, the Government's overall approach is price-led, net-based and least-cost and involves restoring confidence in the NZ ETS for all participants.

Recent changes to NZ ETS settings will ensure New Zealand has a more credible market. The Government has committed to aligning the NZ ETS with New Zealand's climate targets and to giving participants confidence their investments to reduce emissions will be rewarded. The Government agreed to reduce the number of units available between 2025 and 2029, from 45 million to 21 million. This will provide a high probability that NZ ETS emissions will be within the estimated NZ ETS cap for both the second and third emissions budgets.

Together with emissions pricing, a clear role exists for policies that allow the NZ ETS to work better and support the early adoption of emerging technologies. The NZ ETS is agnostic as to where the reductions and removals occur across the sectors included. Progress made, and the future potential reductions in a particular sector, will be considered in the context of economy-wide emissions and removals.

Government's response to key findings

Gross emissions are declining. The Commission's finding aligns with the Government's 2024 GHG Inventory, released on an annual basis, which states gross emissions peaked in 2006 and have been declining between 2019 and 2022. The Commission's assessment is that 94 per cent of the overall reduction in gross emissions in 2022 was influenced by external factors (eg, the Marsden Point Oil Refinery closure and increased hydroelectricity due to higher inflows into hydro lakes). Some factors are likely to be temporary or variable.

Meeting the first emissions budget

The EB1 requires net emissions to not exceed 290 Mt CO₂e for 2022–25. The Commission found that available emissions data and projections are consistent with EB1 being met, with a central estimate of net emissions of 287 Mt CO₂e for 2022–25 (with an uncertainty range of 283.1 Mt CO₂e to 292.4 Mt CO₂e). The Government's interim projections and Target 9 reporting are also consistent with EB1 being met (see [table 2](#)). Because much of the abatement that can be achieved in EB1 is largely 'locked in', draft updated data indicates we remain on track to meet EB1. We do not anticipate this is likely to change in updated projections.

Sources that contribute to uncertainty identified by the Commission include assumed deforestation levels and agricultural production levels, which if these sit at the high end of the assumed range, could see the emissions budget exceeded. These are then coupled with the additional uncertainty that can arise from external factors, such as those indicated in the earlier section on projections. The Government uses uncertainty ranges to represent the possible futures and provide decision-makers with an assessment of confidence about New Zealand's progress.

The findings from the Government's July 2024 interim emissions projections, and Target 9 indicators, show sectoral emissions numbers can fluctuate but are projected to drop over time. System indicators show the economy is decarbonising and slower than usual economic growth could limit short-term emissions (as has been experienced historically).

Meeting the second and third emissions budget

The Commission has provided assessments of sectors, predominantly based on sector progress towards meeting future budgets. When assessing the ability to meet future emissions budgets and targets, the uncertainty in projections increases, as is inherent when modelling projections further into the future.

The Government's July 2024 interim modelling projections indicate New Zealand can meet the 305 Mt CO₂e limit in EB2 (outlined in [table 2](#)), assuming policies proposed in the ERP2 discussion document are implemented. Greater uncertainty exists about New Zealand's ability to achieve the third emissions budget (EB3) but that modelling still shows it is possible to achieve the emissions budget (with proposed policies from the ERP2 discussion document).

The Commission found the agriculture and transport sectors show the largest risks for not delivering against the benchmark emissions reduction from the Commission's demonstration pathway, and insufficient action to reduce emissions in these sectors will put EB2 and EB3 at risk.

For agriculture, an important role exists for policies to reduce these emissions that are outside the NZ ETS cap. The Government is taking a technology-led approach to reducing agricultural emissions, including making a long-term substantial financial commitment to accelerating the development of new agricultural GHG mitigation tools and technologies in partnership with the private sector. It has also committed to implementing a fair and sustainable emissions pricing system for agricultural emissions by 2030.

The Government also has a mix of transport policies in the ERP2 discussion document, including removing barriers to the uptake of electric vehicles, decarbonising heavy vehicles and supporting public transport use.

The Commission's analysis suggests the current renewable energy build path will meet or exceed the Commission's demonstration path benchmark. This government is focused on doubling renewable energy, including by reducing consenting barriers and improving market settings to enable investment in renewable electricity generation.

Updated projections and modelling are being prepared to support the publication of ERP2 later this year, which will take into account the effect of the final ERP2 policy package. Accordingly, the Government's emissions projections are subject to change. Updated projections will be included in ERP2, to be published later this year, and will outline the policies and strategies for meeting EB2 and contributing to EB3.

Meeting the biogenic methane targets

The biogenic methane targets apply only to the agricultural and waste sectors where this gas is emitted.

The Commission's assessment that New Zealand is at risk of not meeting the 2030 and 2050 biogenic methane components of the 2050 target somewhat aligns with the Government's findings. Central estimates from the July 2024 interim projections suggest that biogenic methane emissions will just meet the 2030 target, but exceeding the target is within its uncertainty range. For the 2050 target, the top of the target range is within the projection range, though the central projection places emissions close to 3 Mt CO₂e above the upper limit of the 2050 biogenic methane target range.

The Commission views agriculture as a high-risk sector for EB2, EB3 and the 2030 methane target. In May 2024, Stats NZ revised the 30 June 2022 animal numbers downwards, resulting in agricultural emissions being revised downwards. In addition to agricultural emissions pricing no later than 2030, the ERP2 discussion document proposed similar technology-based approaches to reducing biogenic methane emissions, which somewhat aligns with the Commission-proposed additional policies to target these emissions. Methane projections are being updated as part of finalising ERP2.

Meeting the 2050 target

The Commission acknowledges New Zealand has flexibility in how it meets its emissions budgets and the 2050 target. However, it notes the flexibility is limited by real-world feasibility constraints, particularly in the short term. For example, the impact additional forest planting can make to meeting EB2 is low because the growth of carbon removal is slow in the early stages of new plantings. This highlights the lag that often occurs between action and impact.

The ERM Report identifies that removing barriers that limit the effectiveness of emissions pricing will help deliver cost-effective and durable climate action. Barriers like access to capital, and to systems, infrastructure and incentives make it difficult for people to choose low emissions options.

This government's climate strategy, outlined above, details its long-term approach to deliver and sustain net zero emissions by 2050 at least cost to households and businesses, government and society. Emissions pricing through the NZ ETS is the main tool to deliver this. The NZ ETS will allow participants to discover where they can reduce net emissions at the least cost across the sectors in the scheme.

The Government understands that complementary policies have an important role alongside the NZ ETS. This is particularly so with the critical role of technology in the transition to low emissions and New Zealand being a 'technology taker'. This is why the Government is prioritising policies that make it cheaper or easier for businesses and households to reduce net emissions, for example, through research and development, removing regulatory barriers or addressing market failures, such as lack of information.

Conclusion

The Government thanks the Commission for its inaugural ERM Report and the thorough assessment and analysis undertaken to monitor how New Zealand is tracking to meet its emissions targets and budgets. Most of the key findings broadly align with the Government's monitoring and reporting, including the ongoing need to closely monitor and manage progress within the constraints and uncertainty that exist when transitioning to net zero emissions by 2050.

At the time of preparing this response, the Government has recently concluded its public consultation on ERP2, the plan to meet EB2. The Commission's findings, particularly those on strengthening policies to meet future emissions budgets and the 2030 and 2050 targets, will be considered in upcoming decisions on how ERP2 will help New Zealand transition for the first time between emissions budgets and the plans to achieve them.