Monitoring report: Emissions reduction (2025)
At a glance

He Pou a Rangi
Climate Change Commission

This is an excerpt of the 'At a glance' overview from the main report.

Summary for decision-makers

The country is making progress on reducing greenhouse gas emissions.

- Total net emissions continued to fall over the last year measured.

Emissions are on track for the first budget but will need more work – urgently – to set up for future reductions.

- The country is likely to achieve the first emissions budget (for 2022–2025) due to a combination of emissions reductions and changes to accounting methods.[i]
- The second emissions budget (for 2026–2030) can be met but there are some areas of significant risk.
- Current plans are insufficient to meet the third emissions budget (for 2031–2035) and further action is required *before* the third emissions reduction plan. The Government needs to act ahead of the next emissions reduction plan (due in 2029) as many options that would make a difference will take time to take effect.
- There are also significant risks for meeting the 2050 target without further action.

Action across a wide range of sectors can strengthen the country's resilience to changing global conditions.

- Our analysis shows there are many viable opportunities for further emissions reduction that could reduce risk for the economy and return other benefits to the country.

Recommendation

We recommend the Government acts ahead of the third emissions reduction plan, to reduce risk for the second emissions budget and get on track for the third budget *and* 2050 target, by:

- **strengthening the New Zealand Emissions Trading Scheme (NZ ETS) to ensure it can be effective as a key policy tool for reducing emissions *and***
- **implementing additional targeted policies to complement the NZ ETS, focused on renewable energy, transport and agriculture.**

This recommendation reflects that while the third emissions reduction plan is not due until 2029, early action will reduce investment uncertainty, avoid more disruptive measures later, and help put the country on track to meet the third emissions budget (for 2031–2035) and the 2050 target.

i Methodological changes in New Zealand's Greenhouse Gas Inventory (to improve how emissions are measured and reported) have resulted in a lower level of real-world reductions needed to meet the current first emissions budget. The Commission has separately recommended the first three budgets are revised to bring them in line with the intent when they were set.

What we assessed

He Pou a Rangi Climate Change Commission (the Commission) is tasked under the Climate Change Response Act 2002 (the Act) with independently monitoring Aotearoa New Zealand's progress on reducing greenhouse gas emissions.

This 2025 report is the second annual monitoring report on reductions in the country's greenhouse gas emissions. These objective assessments will form a picture over time, showing how the country is tracking towards its climate change goals.

They present our assessment of:

- the adequacy of the Government's emissions reduction plans and their implementation
- how the country is tracking against the 'emissions budgets' that serve as stepping stones to the long-term emissions reduction target
- progress towards that 2050 target.

This monitoring covers reductions in gross emissions, and removals of greenhouse gases from the atmosphere (carbon dioxide absorbed by forests as trees grow), to report against the country's net emissions target. See 'Precis of key findings' following.

Benefits of monitoring

The emissions budgets set up under the Act turn Aotearoa New Zealand's long-term 2050 target into achievable steps, and provide predictability and stability for government, business and community action.

Independent monitoring of progress against those budgets supports governments to stay on track with climate action, and to continually improve the country's plans.

Monitoring reports provide transparent evidence and information for people to hold governments accountable, which builds trust in the system.

Box A1: Approach and information for this report

This 2025 emissions reduction monitoring report tracks progress towards achievement of the first emissions budget (2022–2025), the second budget (2026–2030), the third budget (2031–2035), and the 2050 target. It assesses the adequacy of both the first and second emissions reduction plans, and progress in their implementation.

Since our last report the Government has published its second emissions reduction plan. We have updated the benchmark that we use to assess adequacy, to reflect the modelling used for the second emissions reduction plan.

Our review covers government policy and action in the 12 months up to 1 April 2025.

As required in section 5ZK of the Act, our analysis is based on the latest available data from New Zealand's Greenhouse Gas Inventory (GHG Inventory), combined with "the latest projections for current and future emissions and removals".[ii]

The information and approach used is outlined in *Chapter 1: Introduction*, with detail in the Technical Annex on our website. See also the report preface *About emissions budgets and reduction plans* (shown on page 9 of this overview).

ii Climate Change Response Act 2002, s 5ZK(2)(a).

Precis of key findings

This is set out under the four questions asked in our assessment, as in the 2024 report.

All references to budgets in our findings are to the set emissions budgets, unless specified otherwise.

Question 1: What progress have we seen in emissions reductions to date?

This focuses on shifts since our last report in July 2024.

The numbers

- From 2019 to 2023, the country's total gross greenhouse gas emissions have declined steadily across the economy. This is before we account for removals of carbon dioxide (CO_2) through forests.
- There was a 2% reduction (1.6 $MtCO_2e$) between 2022 and 2023. 2023 was the lowest level of gross emissions since 1999.
- Net emissions, when removals through forests are included, also fell by 2% (under target accounting rules).
- Stats NZ figures – which provide another year of provisional data – indicate that gross emissions declined in all sectors between 2023 and 2024, except in energy. This increase was from a rise in emissions from electricity generation.

The technology

- New technology to reduce emissions continues to improve in availability and cost.
- Agricultural technologies to reduce methane emissions advanced in the last year and are closer to commercialisation – including ruminant bolus and farm effluent systems. These add to the growing toolkit of technologies and on-farm practices farmers can choose from.
- Prices have dropped for resources, such as solar panels and batteries, that support low-emissions options for flexible and distributed electricity generation.

The policy

- Government policy action taken or signalled in the 12 months up to 1 April 2025 that could support reducing emissions includes: updating NZ ETS settings, confirming rail capability for new Cook Strait ferries, and streamlining consenting for new electricity generation from renewable sources. There are also proposals to increase tree planting on Crown-owned land to remove more CO_2, and to develop options for other carbon capture systems.
- Policy action taken or signalled in the last year that may increase emissions includes: introduction of electric vehicle (EV) road user charges, re-opening oil and gas offshore exploration, and winding down the New Zealand Green Investment Finance (NZGIF) portfolio.

The issues

For a view of options available to address these issues, see 'Question 4'.

- Recent high energy prices emphasise the importance of managing energy affordability and reliability of supply. Long-standing energy supply and competition issues, including insufficient investment in new generation and steadily declining gas supply, contributed to industrial closures in the last year. Action by the Government to address this would improve household and business access to affordable, reliable energy, while also reducing the country's emissions. This can be achieved through action to boost renewable electricity supply, deploy new technologies to enhance system flexibility, and improve housing quality to lift energy efficiency, while continuing to transition away from fossil fuels.
- Primary sector producers and rural communities are navigating diverse pressures including climate impacts, and changes in land use and in environmental requirements. There is need for more clarity and stronger policy coordination around emissions reduction and land-use change (particularly around forestry), to mitigate impacts on the groups affected. This would support the delivery of economic, social and environmental benefits, and provide a strong base for climate action by business and communities (see *Chapter 6: Impacts and benefits*).
- Global shifts create increasingly uncertain conditions in the physical and political environment. International climate action continues, and exporters face increasing requirements from global supply chains and international markets, to demonstrate they have reduced emissions.

Question 2: How is the country tracking towards meeting the first emissions budget for 2022–2025?

- The first emissions budget is likely to be met, due to a combination of emissions reductions and changes to accounting methods.
  - The Commission's emissions budget advice in November 2024 noted that methodological improvements to the GHG Inventory meant the first emissions budget effectively requires 7 $MtCO_2e$ less reductions than was originally intended.[iii]
- The remaining risks are external factors that are now outside the Government's control.
  - There could be higher-than-expected emissions from electricity generation, if low rainfall levels for hydro-electric generation combine with declining gas reserves.
  - Loss of forest area (e.g. from deforestation, storm or wildfire) could result in lower-than-expected levels of CO_2 removal.
- These risks show the importance of allowing a significant buffer when creating emissions reduction plans to ensure budgets can be delivered despite changes outside government control.

iii The Commission has recommended the first three budgets are revised to bring them in line with the intent when they were set, see *About emissions budgets and reduction plans* (shown on page 9).

The Government's projections

- The Government's projections in its second emissions reduction plan show net emissions within budget for the first budget period. The central projection (i.e. the figure the Government modelling indicates is what will happen) is for 284.1 $MtCO_2e$, which is 6 $MtCO_2e$ below the first emissions budget.
  - In the plan's higher-than-expected emissions scenario, there would be a 1.4 $MtCO_2e$ over-run of the first emissions budget, meaning it would not be met.

Question 3: How is the country tracking towards meeting the second emissions budget (2026–2030), the third emissions budget (2031–2035) and the 2050 target, under current emissions reduction policies and plans?

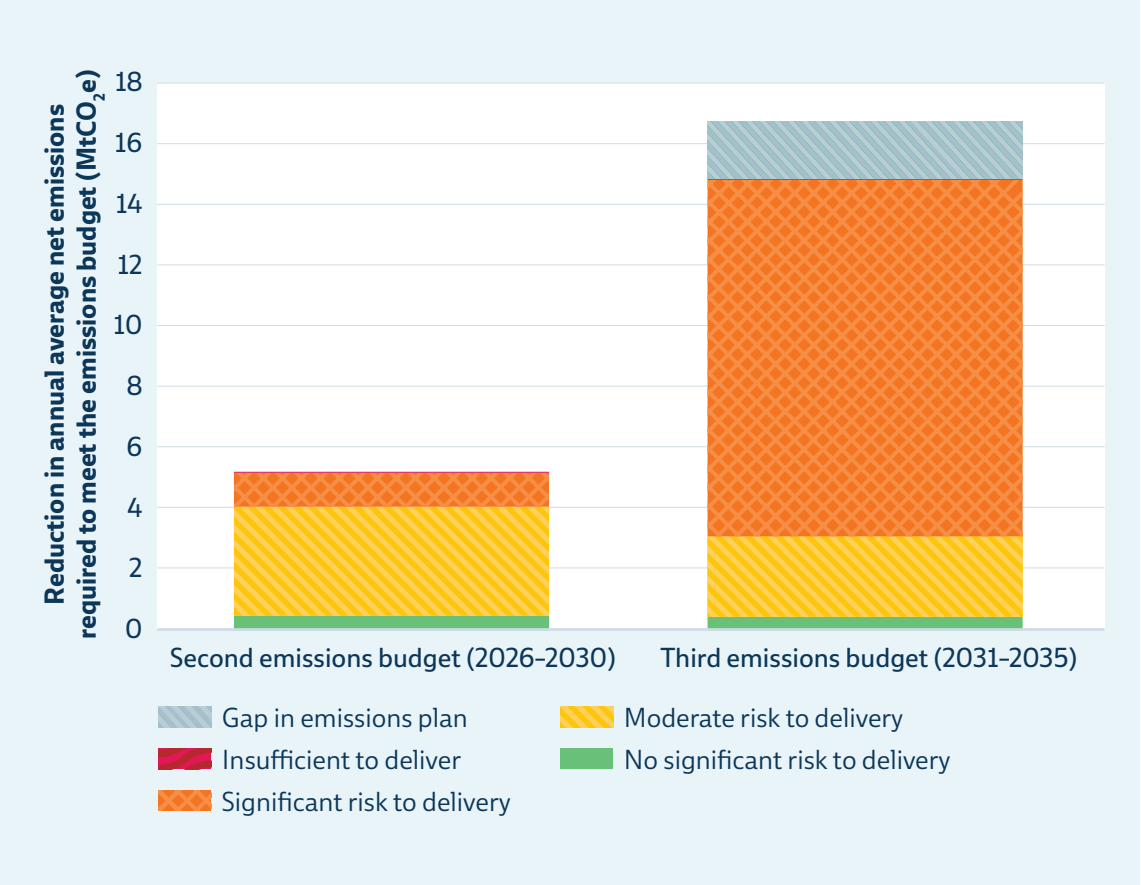
In December 2024 the Government released its second emissions reduction plan. The policies in that plan are expected to reduce emissions by an estimated 3.2 $MtCO_2e$ in the second emissions budget period, and by 17.1 $MtCO_2e$ in the third budget period.

- Progress is being made to reduce emissions, and our assessment shows the emissions budgets can be met if further action is taken (see 'Question 4' for options identified).
- However, our assessment of risk has increased in the last year, particularly for the third emissions budget (Figure A1).
  - For the second emissions budget, there are moderate risks of not achieving planned reductions in most areas; and some areas of significant risk.
  - While the third emissions reduction plan is not due until 2029, current plans are insufficient to meet the third budget and further action is required. There are also significant risks for meeting the 2050 target unless further action is taken.

Risk assessments

- The risk of not achieving emissions reductions in electricity generation increased in the last year. There are also significant risks around whether planned carbon capture and storage in the gas sector will be realised.
- There is risk in relying on a single sector for a large proportion of reductions. In the third budget, 46% of planned emission reductions are through forest removals of CO_2.
- Spreading planned action across a wide range of sectors in the economy reduces the concentration of risk and cost on a single sector, and can deliver a range of benefits to the whole country (e.g. health benefits and cost savings from transport shifts and electrification).
- The Government has identified a range of positive and negative impacts from emissions reduction policies, and some policies to address these impacts, but risks and opportunities remain.
- Around the late 2030s, the net emissions cap within the NZ ETS is expected to reach zero, limiting the scheme's effectiveness beyond that point. If the scheme is to be an effective tool to reduce net emissions in the 2030s and beyond, it will need to be amended.

Figure A1: Overall assessment of risk to meeting the emissions budgets under current policies and plans



Source: Commission analysis

The Government's projections

- The Government's projections for the second emissions budget in the second emissions reduction plan show that budget of 305 $MtCO_2e$ would be achieved by 2030 by a narrow margin. The central projection is 303.1 $MtCO_2e$.
- The projections for the third budget show emissions in 2035 would exceed that budget of 240 $MtCO_2e$. The central projection of 249.2 $MtCO_2e$ is 9 $MtCO_2e$ over the budget.
- The second emissions reduction plan was set according to the current budgets. The Commission's emissions budget advice in November 2024 indicated that improvements to how emissions are measured, and higher rates of forest planting, meant the current budget levels no longer represented the reduction of actual emissions intended when they were set.
  - If the Government amends the budgets to bring them back into line with the intent when they were set, an additional 15 $MtCO_2e$ of reductions would be required in the second emissions budget period and 18 $MtCO_2e$ in the third.

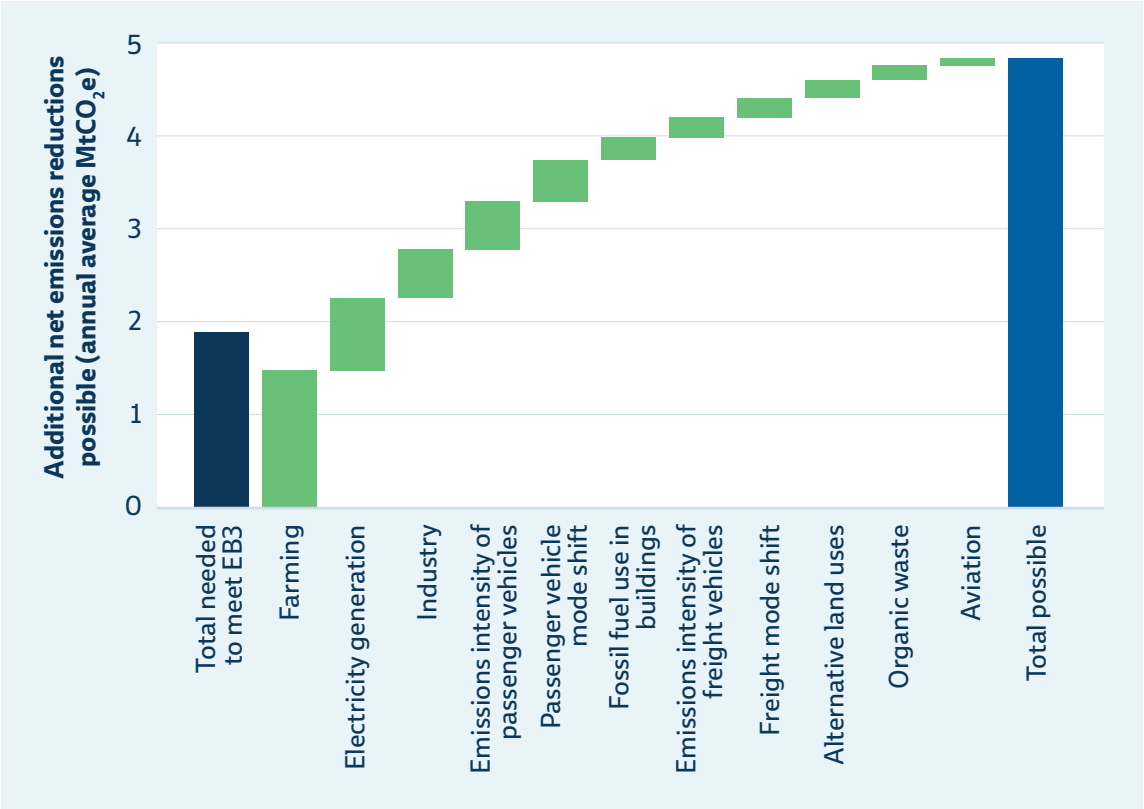
Question 4: What is needed for Aotearoa New Zealand to be on track for future emissions budgets and the 2050 target?

- It is possible to meet the third emissions budget (2031–2035) and the 2050 target, and also to reduce risk for the second emissions budget. This will require action before the next emissions reduction plan.
- *Scale:* The policy action set out in the second emissions reduction plan is estimated to achieve 3.3 $MtCO_2e$ of emissions reductions in the second budget period. The current Government plan leaves a gap almost three times that – 9.2 $MtCO_2e$ – for the third emissions budget period. That will need to be filled by additional action.
- *Timing:* The Government needs to act ahead of the next emissions reduction plan (due in 2029) as many options that would make a difference will take time to take effect. For example, New Zealand Steel's electric arc furnace took three years to progress from funding approval to operation.

Opportunities

These opportunities for emissions reduction are feasible and would help meet the country's climate goals. They are based on a close review of the planned emissions reduction action, and our latest analysis of opportunities for further reductions. Figure A2 shows the relative size of different options, compared to the total needed (left) and total possible (right). See Table 2.4 in *Chapter 2: Our findings* for more information.

Figure A2: Further reductions possible in the third emissions budget period



Source: Commission analysis of the second emissions reduction plan path compared to the Commission's demonstration path from its advice on the fourth emissions budget

Priority action to realise opportunities for Aotearoa New Zealand

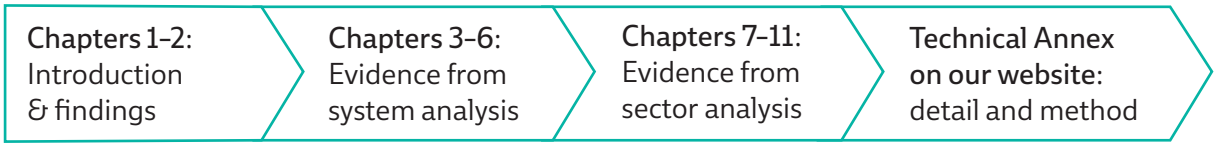
- **Maintain and strengthen the NZ ETS** – A considered and well-signalled evolution of the NZ ETS is required to support the credibility of the scheme and the confidence of the private sector to invest in emissions reductions and durable removals. Updating unit supply and price control settings in a predictable way is also necessary to maintain market confidence. Alternative ways to address emissions leakage could better support industrial emitters to reduce emissions at lower cost to taxpayers.
- **Additional, targeted policies** – As the Government noted in the second emissions reduction plan, further policies may be needed to complement the NZ ETS. Opportunities for policy action that can remove market barriers, reduce risks for the economy and return wider benefits include:
  - Taking advantage of falling prices for solar, electric vehicles and batteries to accelerate the shift to an affordable and reliable energy system with lower emissions
  - Facilitating take-up of new technology and farm practice in ways that suit agricultural producers to maximise the country's competitive advantage and to realise full benefits of the Government's research and development investments.
- **Supporting private sector and Māori-led climate action** – Government has options to support climate action by businesses and at community level without significant fiscal cost. Action that would assist includes evolution of the NZ ETS, maintaining effective climate-related disclosures, clarifying expectations so banks can effectively participate in competitive markets to finance the transition, and exploring options to leverage emissions incentives offered by large companies.

  Access to capital and constraints on developing and managing Māori land remain a barrier to Māori contributing fully to the market-led transition to a low emissions economy. Strengthening partnership with iwi/Māori can return benefits for the whole country while helping the Crown meet its obligations under Te Tiriti o Waitangi/ The Treaty of Waitangi.

Building resilience and reducing long-term cost

- Acting to reduce emissions across the economy can strengthen the country's resilience to changing global conditions. Delaying action may increase cost, and miss the advantages of a smooth transition. Our analysis shows available options for emissions reduction could reduce costs and economic risk, and provide opportunities and benefits for the country's economy, society, environment and future generations.
  - For example, health benefits and cost savings from faster climate action in transport and electrification include health gains from improved air quality valued at NZ$1.1 billion per year by 2035 (see *Chapter 6: Impacts and benefits*).
- Acting on these opportunities would set the country up to meet the third emissions budget in a way that puts it squarely on the path to the 2050 target. This provides governments with flexibility to respond to changing conditions over a long time-horizon.

The full report and other supporting documents are available on our website: climatecommission.govt.nz/ERM-2025



About emissions budgets and reduction plans

This covers what the report assesses and how it relates to our 2024 advice about revising emissions budgets.

In November 2024, the Commission provided advice on two key parts of the emissions reduction system: a review of the 2050 target, and advice for a fourth emissions budget (2036–2040) – which included recommending that the first three emissions budgets are revised. Government decisions on those reports are due by the end of 2025.

In December 2024, the Government published its second emissions reduction plan (for 2026–2030) and amended the first emissions reduction plan (for 2022–2025).

This means our 2025 assessment of emissions reduction progress is made across two emissions reduction plans, and at a time when the Government is considering if the country's emissions budgets and 2050 target should be revised.

Our recommended revisions to the first three emissions reduction budgets

The Commission's recommended revisions to the first, second and third budgets is part of the system that allows for response to changed conditions, supporting the country to stay on course for achieving its long-term climate goals. We can only advise revisions to emissions budgets if we find evidence that specific circumstances have changed since the budgets were originally set in 2022.

Our November 2024 recommendation was to adjust the first, second and third emissions budgets, to reflect changes in the country's official calculation of greenhouse gas emissions (New Zealand's Greenhouse Gas Inventory), and the impact of higher rates of forest planting than projected when budgets were set.

Our advice reflected that improvements in the way emissions are measured and reported, and higher rates of forest planting, meant the current budget levels no longer represented the level of reduction of actual emissions that was intended when the budgets were set. Updating the budgets would allow ambition on emissions reductions to be sustained.

How we made this assessment

We have completed our annual monitoring of emissions reduction against the *current* budgets and plans, as required by the Act.

Our 2024 recommendation to revise the first, second and third budgets is important context. The Commission's advice on the fourth emissions budget also contributes to this report, as it underlies some of the opportunities identified as options for Government action, based on the EB4 demonstration path.

Adequacy of plans and their implementation: Our assessment of the adequacy of the Government's emissions reduction plans covers the first and second plans. This is reported as the risk of not achieving the current budgets for the first, second and third periods, and the 2050 target.

Tracking progress: We track progress in reducing emissions, using the latest available data and the projections in the Government's second emissions reduction plan. We have included, where possible, a view of current progress compared to both the current and the revised budgets we recommended. Providing that comparison allows decision-makers to see how much further action would be required to achieve the emissions reductions as originally intended.