



Briefing: Interagency Final Assessment of Climate Change Commission Advice on the Second Emissions Reduction Plan

Date submitted: 10 October 2024

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Sub Security level: CLASSIFICATION

MfE priority: Urgent

| Actions sought from Ministers | | |
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| Name and position | Action sought | Response by |
| To Hon Simon WATTS Minister of Climate Change | Agree to the recommendations in this briefing | 15 October 2024 |

| Actions for Minister's office staff |
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| Return the signed briefing to the Ministry for the Environment (ministerials@mfe.govt.nz). |

| Appendices and attachments |
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| 1. Appendix 1: Final assessment on consideration of the Climate Change Commission's advice on the policy direction for ERP2 |
| 2. Appendix 2: Key messages from the Climate Change Commission's advice |

| Key contacts at Ministry for the Environment | | | |
|--|-----------------|---------------|---------------|
| Position | Name | Cell phone | First contact |
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| Minister's comments |
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Interagency Final Assessment of Climate Change Commission Advice on the Second Emissions Reduction Plan (ERP2)

Key messages

1. The Climate Change Response Act 2002 (CCRA) requires you to consider the Climate Change Commission's (the Commission) advice on the policy direction for ERP2 for meeting the second emissions budget (EB2) before finalising the plan and its contents.
2. You received the Commission's advice in late 2023. Officials and Ministers have considered the Commission's advice throughout the year.
3. You received an initial briefing on the Commission's advice in December 2023 [BRF-3941].
4. You also received a progress report in May 2024 on consideration of the Commission's advice before public consultation on the ERP2 Discussion Document on 17 July [BRF-4759]. This included commentary on how areas of the Commission's advice aligned to proposals in the draft ERP2 discussion document.
5. You are not obliged to agree with the Commission's advice but you must consider it in the context of preparing an emissions reduction plan.
6. While the Commission's advice should be considered as a whole, it puts forward a set of 27 key recommendations. Many of these recommendations sit outside your portfolio, and are cross-cutting in nature, with relevance to several portfolios.
7. In addition to prior advice and consideration over the year, to support you in your further and final consideration of the Commission's advice, we have summarised our assessment on these recommendations in Appendix 1. Relevant agencies have inputted into the appendix. For reference, top level messages from the Commission's advice are also provided in Appendix 2.
8. You will shortly receive drafts of ERP2 content. We recommend that you consider the Commission's advice as you give direction on the drafts. We are able to receive any feedback from you.
9. In your final Cabinet Paper on ERP2, we recommend that you note that you have considered the Commission's advice to your colleagues.

Recommendations

We recommend that you:

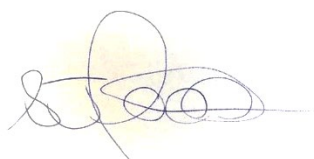
- a. **note** the legal requirement to consider the Commission's advice on the policy direction for ERP2 for meeting EB2 before finalising the plan and its contents (section 5Z1(1)(a)), but that the advice itself is not binding

- b. **note** that this advice is further to earlier advice and consideration of the Commission's advice on ERP2
- c. **use** this advice as a guide, alongside your own consideration of the Commission's advice, ahead of finalising ERP2

Yes | No

- d. **direct** officials to follow up on any areas where further clarification or action is needed.

Signatures

A handwritten signature in blue ink, appearing to read 'S Goodman', is positioned above a yellow circular highlight.

Stephen Goodman
Manager – Mitigation Policy
Climate Change Mitigation

2 October 2024

Hon Simon WATTS
Minister of Climate Change

Date

Interagency Final Assessment of Climate Change Commission Advice on the Second Emissions Reduction Plan

Purpose

10. This briefing provides you a final assessment of the Climate Change Commission's (the Commission) recommendations for ERP2.
11. This assessment includes advice from other agencies on the Commission's recommendations and commentary on how these align with content currently in the ERP2. A table summarising this information is attached at Appendix 1. You can use this table as a guide, as you consider the Commission's advice and give direction on content for the final emissions reduction plan.

Background

12. The Climate Change Response Act 2002 (CCRA) requires you to consider the Commission's advice on the policy direction for ERP2 for meeting EB2 before finalising the plan and its contents (section 5ZI(1)(a)).
13. The Commission provides independent, evidence-based direction to support the Government in achieving EB2. It contains 27 recommendations and sets out a comprehensive pathway to achieve emissions reductions needed over the second emissions budget period. Key messages from the Commission's report are included in Appendix 2 for reference.
14. Officials and Ministers have considered the advice over the course of the year. Thirteen recommendations are being led, or co-led, by other agencies. While other Ministers will have responsibility for specific areas of advice that may fall within their portfolios, you have the legal duty under the CCRA to consider the Commission's advice in the round.

Advice

Summary of advice provided by agencies to support you to consider the Commission's advice

15. You have received a range of advice considering, but not limited to:
 - i initial advice from MFE officials on the Commission's advice in December 2023 [BRF-3941]
 - ii an interagency progress report in May 2024 on the Commission's advice prior to public consultation [BRF-4759]

- iii specific areas of the Commission's advice, including but not limited to, recommendations 2 and 3 (on setting and communicating gross levels of removals) [BRF-4430], and 4 (aligning ETS with gross emissions) [BRF-4430].
16. In addition, other agencies have briefed their Ministers and developed ERP2 policy proposals. As part of this process, agencies have also considered the Commission's advice. These policy proposals were provided to you as lead Minister in the form of chapters for the discussion document.
17. Since publication of the ERP2 discussion document, you have received further advice on a range of areas such as mitigating impacts with iwi and Māori in ERP2 (also pertaining to recommendations 7 and 8) [BRF-5276], and a strategy for mitigating the distributional impacts on a range of population groups (relating to recommendations 9 and 10) [BRF-5302].
18. Officials have now summarised work over this year as an interagency assessment on the Commission's recommendations in Appendix 1. The assessment includes commentary on how these recommendations align with content currently in the ERP2. This table should be read alongside the Commission's advice to help inform your consideration of that advice.
19. Of the 27 recommendations provided by the Commission:
- i. Nine recommendations are aligned to policies in the current ERP2.
 - ii. A further twelve recommendations are partially aligned to policies or actions in the draft Plan. This includes instances where part of the Commission's advice aligns with content in the draft ERP2. It also includes instances where there is alignment of policy intent such as decarbonisation of process heat (recommendation 20), but where a different approach has been preferred which is more consistent with Government strategy. In your consideration of the Commission's advice, officials note that you will make your own determination on any areas you would like further clarification or action on.
 - iii. Three recommendations have merit, but do not feature as policies/content in the draft Plan. These are supporting actions which are being considered outside of the plan, for example as longer-term areas of work. We recommend that these items be monitored and progressed over time within Ministerial priorities and subject to available resources.
 - iv. Three recommendations are not well aligned and are not included in the current draft ERP2. This includes recommendations 2 (on setting gross levels of removals), 14 (accelerate retrofits), and 15 (limit fossil gas infrastructure installation in buildings).
 - v. Changes in alignment from the ERP2 discussion document to the current plan are noted in Appendix 1.
20. As noted in the progress update in May [BRF-4759], it is difficult to rule out some recommendations as they may have value over the emissions budget period even if not included in the initial plan.

Considering other relevant advice from the Commission

21. The Commission delivered its first annual emissions reduction monitoring report ('the ERM report') in April 2024, as required under the CCRA [BRF-4996]. The ERM report assessed New Zealand's progress towards emissions budgets and targets, and the government's plan to meet them. It included four key findings, two of which are particularly relevant to the development of ERP2.
- iv. Key finding 3: "There are significant risks to meeting the second and third emissions budgets and the 2030 biogenic methane target under current policies."
 - v. Key finding 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."
22. Officials have considered relevant findings from the Commission's monitoring report in the development of ERP2 policies. This is referenced in the Government's response to the Commission's report, which is due to be considered by Cabinet on 14 October and tabled in the House by 16 October [BRF-5342].

Te Tiriti analysis

23. As part of its functions and duties under the CCRA, the Commission is required to consider where relevant a range of matters, including the Crown-Māori relationship, te Ao Māori and specific effects on iwi and Māori.¹
24. Under section 3A(ad) of the CCRA, you have a duty to consider Māori rights and interests and recognise and respect the Crown's responsibility to give effect to the principles of the Treaty of Waitangi in preparing ERP2. You have two specific requirements to address under the CCRA, specifically:
- iv. to ensure that iwi and Māori have been adequately consulted on ERP2; and
 - v. to include a strategy in ERP2 to recognise and mitigate the impacts on iwi and Māori of reducing emissions and increasing removals.
25. Te Tiriti is considered throughout development of the ERP2, including as part of the Māori Rights and Interest workstream for ERP2. In addition, there are several specific recommendations contained in Chapter 8 Whāia ngā tapuwae of the Commission's report which have been considered as part of this assessment. Recommendations 7 and 8 relating to Māori rights and interests have also been advised on as part of MFE's wider work on mitigating Impacts with Iwi and Māori in ERP2 [BRF-5276].

¹ Section 5M(f) of the CCRA

Other considerations

Stakeholder concerns and reputational risks

26. Some stakeholders may expect to see the Commission's advice feature more prominently in the final plan.
27. For the ERP2 launch we will give you speaking points on how you have considered the advice, pointing out how the advice has been reflected in the plan, and areas where work may be taken forward outside of the plan itself.

9(2)(h) [REDACTED]

[REDACTED]

Next steps

29. You will shortly receive draft ERP2 content. We suggest that you read this advice alongside that material.
30. In your final Cabinet Paper on ERP2, we recommend that you note your consideration of the Commission's advice to your colleagues.

Appendix 1: Final assessment on consideration of the Climate Change Commission's advice on the policy direction of ERP2

| Recommendation | Lead agency | Alignment with proposals in the current ERP2 | Key advice points to consider (e.g. takeaways from analysis and specific outcomes) | Additional comments (e.g. if work being taken forward - how) |
|--|-------------|--|---|--|
| <p>1) Align and coordinate institutional and regulatory outcomes within and between levels of government and across all sectors of the economy to support the coherent implementation of the second emissions reduction plan</p> | MfE | <p>Partially aligned with policy currently proposed in the draft ERP2 (Previously supporting policy considered outside of Discussion Document)</p> | <p>We understand this recommendation to be a broad and long-term challenge to the Government – mostly beyond climate, to be achieved over multiple emissions budgets and considered over the longer-term.</p> <p>Overall, you have driven alignment through setting an overarching Climate Strategy (published in July) and commitment to tracking progress on Government Target 9: Reduced net greenhouse gas emissions which supports line of sight on the Government's current pathway and progress over EB2 and beyond.</p> <p>ERP2's market led approach leverages the ETS as a key tool to help achieve EB2, providing direction for sector-based outcomes. As a common policy mechanism, it subjects most parts of the economy to the same costs and incentives to reduce emissions, also seeking to encourage investment. The draft ERP2 includes an implementation chapter outlining the adaptive management approach that the Government intends to take to help ensure that policies are working to deliver expected levels of abatement. In addition, the adaptation goals within ERP2 involve an integrated approach across multiple sectors, including alignment with the Government's adaptation-related work programmes, including the adaptation framework, national adaptation plan and the national direction on natural hazards.</p> <p>Beyond ERP2, there are broader reforms that work toward regulatory alignment, for instance:</p> <ul style="list-style-type: none"> • Phased reform to the resource management system to enable it to provide faster and cheaper processes with less reliance on litigation, contained within shorter and simpler legislation that is more accessible; • The establishment of the Ministry for Regulation which will ensure the quality of new regulation, improve the functioning of existing regulatory systems, raise the capability of those who design and operate regulatory systems, and provide continuous and enduring improvements to the regulatory management system; and <p>Several current mechanisms also support alignment within and between government, including the:</p> <ul style="list-style-type: none"> • Climate Priorities Ministerial Group – which is responsible for cross-sector matters relevant to New Zealand's climate change response and is comprised of key Ministers responsible for delivery of the ERP; • Climate Change Interdepartmental Executive Board (CCIEB) - designed to draw together chief executives to deal with complex issues that have impacts and policy levers that sit across a wide range of portfolio areas; <p>This recommendation has merit and at high level appears consistent with the Government's approach to ERP2 to date and broader government programmes, with existing foundations in place to build on if you wish to go further in supporting alignment and coordination during ERP2 implementation.</p> | |
| <p>2) Commit to specific levels of gross greenhouse gas emissions and carbon dioxide removals for the second and third emissions budgets and align policies to achieve or exceed the emissions reductions in the budgets. Gross emissions should not exceed 362 MtCO₂e for the second emissions budget nor 322 MtCO₂e for the third emissions budget</p> <p><i>The levels the Government commits to for gross emissions and carbon dioxide removals must be developed in partnership with iwi/Māori under Te Tiriti o Waitangi/The Treaty of Waitangi</i></p> | MfE | <p>Currently not aligned or included in draft ERP2</p> | <p>As per previous briefings, the Government's preference is to have an efficient transition that ensures economic actors have choice over the most-efficient mitigation actions to take over time. This could be a reduction (gross) or a removal (net), as long as New Zealand can meet its targets over time. Therefore, an approach of setting gross targets would appear to fit less well with the Government's approach.</p> <p>Gross emissions targets might provide a stronger focus on emissions reduction, even within a net-based strategy. However, there are costs and risks to adopting them. In particular, the inflexibility of targets risks locking New Zealand into a less efficient pathway and - depending on where any targets are set - risks increased short-term costs to the Crown and consumers.</p> | |
| <p>3) Communicate indicative levels of gross greenhouse gas emissions and carbon dioxide removals out to</p> | MfE | <p>Partially aligned with policy currently proposed in the</p> | <p>Information in the emissions reduction plan sets out a long-term, modelled pathway to 2050, including expected reductions and removals, without short-term binding targets for individual sectors. The key difference is that the Government's plan provides a pathway, but does not seek to bind the economy. Rather, the plan provides space for the most-efficient balance of reductions and removals over time.</p> | |

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| <p>2050 and beyond to guide policy decisions</p> <p>The levels the Government communicates for gross emissions and carbon dioxide removals must be developed in partnership with iwi/Māori under Te Tiriti o Waitangi/The Treaty of Waitangi</p> | | <p>draft ERP2 (Previously supporting policy being considered outside of Discussion Document)</p> | | |
| <p>4) Align the emissions pricing system with delivering the desired levels of gross emissions for the second and third emissions budgets, and with the 2050 net zero target, by:</p> <p>a. amending the NZ ETS to separate the incentives for gross emissions reductions from those applying to forests</p> <p>b. providing durable incentives for net carbon dioxide removals by forests through to, and beyond, 2050</p> <p>The redesign of emissions pricing incentives must take into account the unique characteristics and historical circumstances of land owned by Māori and options must be developed in partnership with iwi/Māori under Te Tiriti o Waitangi/The Treaty of Waitangi</p> | MfE | <p>Overall partially aligned, split into two components:</p> <p>4 a) Currently not aligned or included in draft ERP2</p> <p>4 b) Partially aligned with policy currently proposed in the draft ERP2</p> | <p>Government intends to take a net-based approach that does not align with Recommendation 4a.</p> <p>The Government's priority for the NZ ETS is market credibility and confidence and seeks to make no major changes to the NZ ETS. The NZ ETS review was closed in December 2023 and the Government has committed to no differential treatment of forestry NZUs in the NZ ETS.</p> <p>Under current settings, there is a risk the NZ ETS does not encourage enough removals to achieve New Zealand's net zero 2050 target, posing a risk to achieving this target.</p> <p>This risk arises because:</p> <ul style="list-style-type: none"> • A significant amount (about 7.5 Mt CO₂-e20 per year or 20 per cent) of long-lived emissions (e.g., agricultural nitrous oxide) will remain outside the NZ ETS and, • Under current settings, some industrial allocation recipients will continue receiving some NZUs for free beyond 2050. <p>Longer-term projections are highly uncertain and are contingent on many factors, including assumptions about the rate of technological development, macro-economic and demographic conditions, consumer behaviour as well as government policy choices. Despite this, based on assumptions as at public consultation, the interim projections show that both the 'net zero' target for long-lived gases and the 2050 methane target fall within the range of uncertainty. It is important to note that the yet-to-be-set future emissions budgets will drive policies to ensure long-term targets are met.</p> | <p>The ERP2 discussion document highlighted that the Government will investigate options to create durable incentives for forestry removals outside the NZ ETS, in addition to existing NZ ETS incentives.</p> <p>Work to reduce agricultural nitrous oxide and emissions from industrial allocation recipients in future emissions reduction plans will need to consider addressing the risk to our net zero target.</p> <p>This work programme is being progressed through work to support afforestation on Crown land and work to recognise and reward non-forestry removals.</p> |
| <p>5) Reduce the barriers – including regulatory, institutional, and ownership barriers – to mobilising the public and private investment required to meet emissions budgets</p> | TSY/MfE | <p>Aligns with policy currently proposed in the draft ERP2</p> | <p>The Sustainable Finance Strategy will be a key avenue for MfE to explore, and deliver, on this recommendation. MfE is currently working to develop a strategy that will provide a more centralised approach to sustainable finance in New Zealand and understand how this strategy can provide clarity to mobilising public and private investment required to meet emissions budgets.</p> <p>Specific options to address barriers around mobilisation of finance as raised by the CCC in recommendation 5 include debt financing and risk sharing opportunities. These options can be explored within strategy development. The Reference Group and partnership with the Centre for Sustainable Finance can also be used to explore the opportunities with implementing and/or sequencing these options.</p> <p>MfE's work developing a sustainable finance taxonomy will also provide a classification system for climate friendly investment in Aotearoa New Zealand in line with the CCC's recommendation, and includes space to explore transition activities.</p> | |
| <p>6) Provide adequate targeted investment and increased coordination, and facilitate widespread sharing of freely available climate change data and information to enable a research, science, innovation, and technology system that supports achieving emissions budgets and the 2050 target</p> | MfE | <p>Supporting policy being considered outside of draft ERP2, subject to resourcing</p> | <p>The Climate Data Initiative (a \$20 million Budget 2023 investment) and the Ministry's 'Improving Environmental Data' work programme (BRF-4969) should, at the very least, partially deliver on these recommendations. MfE is currently scoping work which improves emissions/ENZ modelling capabilities across government and delivering products which make emissions data and modelling information more accessible and useful for decision making (e.g. emissions and Target 9 dashboard).</p> | <p>This work will be taken forward by the Minister of Climate Change with Ministers Bishop, Hoggard, and Simmonds.</p> <p>The primary delivery vehicle for this work will be the Climate Data Initiative.</p> |
| <p>7) Introduce ways to directly allocate resources to iwi/Māori and augment funding to Māori landowners to enable them to accelerate emissions reductions and removals in accordance with their assessments and priorities</p> | MfE | <p>Partially aligned with policy currently proposed in draft ERP2 (Previously supporting policy being considered outside of Discussion Document)</p> | <p>It is well established that tribal entities and Māori landowners face significant, competing priorities and constraints to accessing capital. The Māori economy is currently emissions intensive due to a concentration in agriculture. Māori forestry is also a large contributor to carbon removals.</p> <p>We have proposed to take this forward in the near-term through the Māori Climate Platform. The Māori Climate Platform has time-limited funding until 2026/27 which may need to be reviewed during the Budget period.</p> | |
| <p>8) Ensure iwi/Māori are empowered to lead the weaving of mātauranga Māori into policy design,</p> | MfE | <p>Aligns with policy currently</p> | <p>A stocktake revealed that current efforts are adequate but fragmented. Aligning these initiatives would ensure a more coherent and cost-effective approach to integrating Mātauranga Māori, maximising the impact of existing resources. A strategy recently prepared by MfE</p> | |

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| <p>development, and implementation at central and local government levels. This includes providing sufficient resources to iwi and hapū</p> | | <p>proposed in draft ERP2 (Previously supporting policy being considered outside of Discussion Document)</p> | <p>aimed at improving evaluation, alignment, value for money, and measurement of Mātauranga Māori across relevant ministries has recently been paused. The proposed way forward is to leverage existing policy frameworks, as resources allow.</p> <p>The potential for new pilot projects through the Māori Climate Platform represents an opportunity to innovate and refine the integration of Mātauranga Māori in climate strategies. These pilots would also support alignment with statutory requirements and reduce the risk of successful litigation.</p> <p>The final ERP2 could acknowledge mātauranga as an important perspective for Māori.</p> | |
| <p>9) Expand the scope of the Equitable Transitions Strategy to also include the impacts of climate change and adaptation as well as mitigation</p> | MfE | <p>Partially aligned with policy currently proposed in draft ERP2</p> | <p>MfE agrees that better alignment in responses to mitigation and adaptation would be valuable, but they have been considered independently through the ERP2 process due to resourcing and timing constraints. Note that the Equitable Transitions Strategy has been discontinued.</p> <p>The adaptation goals within ERP2 aims to improve the ability of sectors to adapt as they reduce their emissions. They provide a starting point in considering mitigation and adaptation efforts across multiple sectors, particularly the synergies and trade-offs from their emissions reduction initiatives. This involves improving sectors understanding and managing climate risks and impacts, co-benefits, maladaptation and future resilience. They are also supported by existing and upcoming Government adaptation-related work programmes, including the adaptation framework, national adaptation plan and national direction on natural hazards.</p> | <p>There are opportunities to improve alignment on responses to impacts from climate mitigation and adaptation in the future and a more aligned approach would be valuable.</p> |
| <p>10) Manage the impacts of climate policies using existing policy levers until the Equitable Transitions Strategy is implemented, rather than delaying climate action</p> | MfE | <p>Partially aligned with policy currently proposed in draft ERP2 (Previously aligned to Discussion Document)</p> | <p>This recommendation encourages the Government to consider use of existing supports to manage any distributional impacts, while an Equitable Transitions Strategy is in development. The Government has discontinued the Equitable Transitions Strategy. This said, your proposed approach to managing the impacts of climate policies is not inconsistent with this recommendation to consider existing policy levers, as you have indicated that part of your strategy is to use existing and universal supports to manage the impacts of climate policies.</p> <p>An underpinning theme of this recommendation is continued momentum on climate mitigation. The Commission has stated its view that delaying or cancelling climate actions because of their adverse impacts on specific groups should be avoided because it risks New Zealand's ability to meet its climate targets. The recommendation is that policies should be continued as much as possible through uncertainty and/or economic cycles. This Government has developed its own approach and plan for achieving climate targets, including EB2 as well as longer term targets.</p> | |
| <p>11) Advance the agricultural emissions pricing system to: a. continuously broaden the range of recognised low emissions practices and technologies b. incentivise gross biogenic methane emissions reductions in a manner consistent with achieving the 2030 biogenic methane component of the 2050 target, and putting the country on a trajectory to achieve the 2050 target in full</p> | MPI | <p>Aligns with policy currently proposed in the draft ERP2 (Previously partially aligned to Discussion Document)</p> | <p>The Government has committed to introducing a fair and sustainable pricing system of on-farm emissions no later than 2030, that reduces emissions without causing emissions leakage by sending production overseas. The Government has also invested over \$400m to accelerate the development of emissions-reducing tools and technologies.</p> <p>Also relevant to this recommendation, and decision-making on any pricing system, are:</p> <ul style="list-style-type: none"> • The review currently underway on the methane targets (that is, provision of certainty of/determining the target is of relevance to policy design). • The availability of mitigation technologies (note the investment referenced above). • Work underway on the standardised farm level methodology (a standardised methodology is a pre-requisite to any pricing system, and it is important that this methodology incorporates mitigations and on-farm practices that impact emissions. Work is well underway on this). <p>Note that a government-backed, transparent, and standardised approach to estimating on-farm emissions is also expected to increase confidence in the emissions claims of exporters, help farmers understand the benefits of emissions-reducing technologies, and support development of efficient associated tools.</p> <p>These recommendations aim to achieve emissions budgets and also the 2030 and 2050 methane targets. Government projections suggest that both targets can be met, falling within a range of uncertainty for meeting the targets. At the time of this advice, the central estimate for meeting the 2030 target was marginally favourable, with expected reductions of just over the 10% target.</p> | |
| <p>12) Enhance advisory and extension services to farmers to accelerate land-use diversification and uptake of the technology and practices required to reduce gross emissions in line with emissions budgets and the 2050 target These services must be co-designed, coordinated, and implemented in partnership with farmers/iwi/Māori, and should be developed in collaboration with industry</p> | MPI | <p>Aligns with policy currently proposed in the draft ERP2 (Previously partially aligned to Discussion Document)</p> | <p>We consider that MPI's existing work on extension and On Farm Support to be aligned with intent of the second recommendation (that is, that farmers and grower be supported to make on-farm changes to reduce emissions).</p> <p>Also relevant is the Accelerating New Mitigation Technology Programme (\$419 million investment over the next four years). While it is largely focussed on accelerating the development and commercialisation of new mitigation technologies, proportion of the programme is dedicated to building farmer awareness of new mitigation to support uptake, including:</p> <ul style="list-style-type: none"> • funding via the New Zealand Agricultural Greenhouse Research Centre to upskill end users via provision of relevant and robust emissions mitigation information and training for rural professionals, policy makers, landowners, farmers and growers including via AgMatters website. • outreach activities/fielddays for farmers on specific new mitigation technologies e.g. EcoPond and low methane sheep genetics. • extension to support Māori entities to reduce emissions including via adoption of new mitigations technologies. | |

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| <p>13) Ensure planning systems are integrated and support building urban areas upwards and mixing uses in order to reduce emissions, while decreasing susceptibility to climate-related risks</p> | MfE/MHUD | <p>Partially aligned with policy currently proposed in draft ERP2 (Previously supporting policy being considered outside of Discussion Document)</p> | <p>Agencies support the advice in the Commission's report - dense, well-connected, and well serviced cities reduce the need to travel long distances and have a lower carbon footprint. Work to support these outcomes is underway through existing work including the Government's Going for Housing Growth (GfHG) and resource management reform work programmes.</p> <p>GfHG includes direction for councils to have 30 years of land supply for housing that is zoned for development, as well as changes to better enable mixed use and more intensification along strategic transport corridors. This policy direction will be achieved through changes to the Resource Management Act 1991 and to the National Policy Statement on Urban Development. GfHG will improve tools for infrastructure funding and financing to support development, supporting intensification.</p> <p>Work is underway on the adaptation framework, and the National Policy Statement on Natural Hazards, which will help to better identify and manage climate-related risks, including for urban areas. The adaptation framework is considering the availability and access to risk information as a way to improve climate risk and information flows. New national direction instruments, on managing natural hazards and changes to land-use planning, will support appropriate steps for development in risk-prone areas.</p> <p>The contributions of this work towards climate change adaptation and mitigation should be considered, through the advice being developed as a part of these respective workstreams.</p> | |
| <p>14) Accelerate comprehensive retrofits to deliver healthy, resilient, low emissions buildings</p> | MBIE | <p>Currently not aligned or included in draft ERP2</p> | <p>Implementing this recommendation is likely to reduce emissions and deliver co-benefits by improving health outcomes and supporting productivity and employment. It can also support the decarbonisation of the energy system by helping to reduce energy demand and the amount of investment required in new renewable generation infrastructure. However, implementing the recommendation as envisaged by the Climate Change Commission is unlikely to align with the Government's approach towards reducing emissions as it is likely to require significant funding. Despite this, it may be possible to adopt a lighter touch approach towards encouraging retrofitting by improving the information available on the energy efficiency of buildings to enable building owners and occupants to make informed decisions to retrofit where it is cost effective for them to do so. However, a lighter touch and market led approach is unlikely to significantly accelerate retrofitting to improve energy efficiency as barriers such as typically high upfront costs and split incentives make it relatively difficult for people to retrofit buildings.</p> | <p>MBIE provided advice to the Minister for Building and Construction on 17 September 2024 on options to include buildings in the second emissions reduction plan. This briefing recommended that the Minister includes two actions that are likely to support retrofitting in a way that more closely aligns with the Government's approach. The recommended actions are to expand energy performance ratings for non-residential buildings and streamline the building regulatory system to make it easier for people to retrofit. This briefing will be forwarded to the Minister of Climate Change and the Minister for Energy.</p> |
| <p>15) Prevent the installation of fossil gas infrastructure and connections in buildings except where there are no technically viable low emissions alternatives</p> | MBIE | <p>Currently not aligned and not included in draft ERP2</p> | <p>Preventing new gas connections could help to reduce emissions from buildings, improve energy efficiency, deliver health benefits and be cost-effective for new consumers. It could also help to ensure a secure supply of fossil gas for hard to abate sectors as buildings are generally well suited to electrification. However, it does create risks of high gas prices for people who already use gas in their buildings if gas network costs are spread over fewer users. Preventing new gas connections is unlikely to align with the Minister for Energy's priorities for the energy system which are focussed around enhancing energy security by restoring confidence in the gas sector. Additionally, preventing new gas connections does not align with the Climate Change Strategy and the Government's market-led approach to reducing emissions. Despite this, there may be opportunities to encourage buildings to shift away from fossil gas in a way that more closely aligns with the Climate Change Strategy. For example, credible emissions pricing or energy performance ratings for buildings could encourage people to electrify their buildings.</p> | <p>MBIE provided advice to the Minister for Building and Construction on 17 September 2024 on options to include buildings in the second emissions reduction plan. This briefing recommended that the Minister for Building and Construction includes one action that could encourage consumers to electrify their buildings in a way that more closely aligns with the Government's approach. The action proposes to expand energy performance ratings for non-residential buildings. This briefing will be forwarded to the Minister of Climate Change and the Minister for Energy.</p> |
| <p>16) Strengthen product stewardship and expand coverage across products and packaging to help avoid emissions associated with waste</p> | MfE | <p>Supporting policy being considered outside of draft ERP2, subject to resourcing</p> | <p>Existing priority products are at various stages of development. The scheme for tyres is now fully operational. For ERP2, Cabinet will consider whether to develop product stewardship regulations for refrigerants in New Zealand. Some refrigerant gasses have a very high global warming potential. In order to strengthen product stewardship and implement some schemes, improved regulatory powers for extended producer responsibility are needed, which would come through new waste legislation. The Minister for the Environment has committed to a review of the Waste Minimisation Act 2008 and Litter Act 1979 and replacement with fit for purpose legislation.</p> | <p>There is support for product stewardship schemes by many submitters. The Minister for the Environment will consider continuing to work on the current Priority products and progress schemes in a measured way to</p> |

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| | | | | ensure they are well-considered as part of the waste minimisation work programme via Cabinet (anticipated to be October 2024). |
| 17) Declare construction material wood waste as a priority product to help reduce emissions from construction and demolition waste | MfE | Supporting policy being considered outside of ERP2, subject to resourcing | <p>The first step to strengthen product stewardship is for improved regulatory powers for extended producer responsibility, which would come through new waste legislation. The Minister for the Environment has committed to a review of the Waste Minimisation Act 2008 and Litter Act 1979 and replacement with fit for purpose legislation.</p> <p>Data and evidence obtained from implementing ERP1 actions can be used to inform any future work.</p> <p>The Minister for the Environment is interested in working with the waste and construction sectors to identify low-cost solutions for reducing construction and demolition waste more broadly. However, mandating construction material as a priority product may not be the most cost effective option. The Ministry will provide further advice to the Minister in 2025.</p> | Many submitters, including sector representative groups and landfill operators, supported the need for solutions to wood waste. The Minister for the Environment is interested in working with the waste and construction sectors to identify low-cost solutions for reducing construction and demolition waste more broadly. The Ministry will provide further advice to the Minister in 2025. |
| 18) Provide overarching guidance and an enabling regulatory framework to advance a circular bioeconomy that reduces emissions and increases resilience to climate change, ensuring cross-sector coherence | Shared consideration by MBIE, MfE, MPI | Partially aligned with policy proposals currently in draft ERP2 (Previously supporting policy being considered outside of Discussion Document) | Agencies recognise there is some potential in approaches proposed by the Commission to support development of a bioeconomy. For example, 'overarching guidance' on a circular bioeconomy (which would likely have been part of, or delivered through actions in, a Circular Economy and/or Bioeconomy Strategy), could function to support alignment of policies across government. The ERP2 has no explicit focus on bioeconomy as a whole, but does include proposals in areas that are components of a bioeconomy such as bioenergy, sustainable aviation fuels, wood processing, and non-forestry removals such as wetlands. Bioeconomy related initiatives are also being progressed outside the scope of the ERP2, e.g. by MPI. | As the circular and bioeconomy strategy is not a current priority for the Government, our assessment is that the case for a regulatory framework could instead be made over time and on an as needed basis, to ensure it aligns with a least-cost way of achieving the climate target. For example, noting the future role of biological resources towards both decarbonisation and growth, any market interventions such as any future policy toward biofuels, including sustainable aviation fuels, may provide the opportunity to consider the regulatory framework opportunities in a more targeted way. |
| 19) Prioritise and accelerate renewable electricity generation build and ensure electricity networks can support growth and variability of demand and supply. These outcomes must be progressed in partnership with iwi and hapū, particularly considering potential implications for mana whenua and mana moana and their rights and interests | MBIE | Aligns with policy currently proposed in the draft ERP2 | Key takeaway is that the Government's existing work programme, particularly Electrify NZ, generally aligns well with this recommendation and is already captured as a key pillar in ERP2. While Electrify NZ includes a range of different workstreams, measures to enable consenting of renewables include provisions to engage with Māori to assess and manage impacts on Treaty settlements. This work is also viewed as an important enabler to supporting demand side users (including in process heat) to have the confidence to electrify their energy use where appropriate. | Electrify NZ includes a range of different initiatives in progress. These workstreams will be reflected in the final ERP2 |

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| <p>20) Accelerate the decarbonisation of process heat and pursue opportunities to reduce emissions across other industrial sectors</p> | <p>MBIE</p> | <p>Partially aligned with policy proposals in the draft ERP2 (Previously not aligned and not included in Discussion Document)</p> | <p>Industry is a sector already covered by the ETS and recent decisions to strengthen ETS settings and the ETS will continue to support net emissions reductions across priced sectors, including industry. However, this will not necessarily mean gross emissions reductions from industrial energy users as the government is pursuing a net based strategy.</p> <p>Work to enable industrial emissions reductions is ongoing, particularly through the Energy Efficiency and Conservation Authority's work to provide information to businesses on opportunities to reduce emissions</p> <p>In addition, the Government will continue to be focused on regulatory and legislative policy settings that reduce barriers to investment (as outlined in Recommendation 19), which will help to make electricity more affordable to support industrial decarbonisation investments, including process heat.</p> <p>Related initiatives include the work on climate financing (noting work outlined in that chapter of ERP2); and Workforce planning (led by Labour Market Ministers) to reduce skills shortages in New Zealand.</p> | <p>Some submitters supported using the ETS as the main mechanism for driving emissions reductions but others noted that current settings, and the low forecast carbon price, mean the ETS alone is unlikely to incentivise significant gross reductions in process heat or hard-to-abate sectors. Some submitters supported further complementary policies that could address market failures and incentivise businesses and households to reduce their emissions, including through uptake of energy efficiency measures. MBIE continues to play a stewardship role in relation to reducing industrial emissions by engaging with policy agencies responsible for ETS, climate investment, and workforce issues; with EECA on delivery and market insights in relation to their existing agreements with industrial businesses; and with other public and private sector stakeholders.</p> |
| <p>21) Clarify the intended roles of different types of forests in achieving emissions budgets and targets. The effects of different types of forests on ecosystem services, socioeconomic factors, rural communities, and resilience to hazards and climate change must be considered in partnership with iwi/Māori under Te Tiriti o Waitangi/The Treaty of Waitangi</p> | <p>MPI</p> | <p>Partially aligned with policy currently proposed in the draft ERP2</p> | <p>The Government recognises both exotic and native forests have important contributions to achieving emissions budgets and targets, and have different effects.</p> <p>Different approaches can be taken to clarifying what the roles of these forests will be. The Government has decided to take a market-led approach, using the NZ ETS to reduce net emissions and incentivise afforestation. This will enable landowners to decide the roles of different types of forest on their respective properties.</p> <p>The Government has indicated it intends to progress work to afforest Crown-owned Land as part of ERP2. This will see planting of both native and exotic forests considered.</p> <p>The Government's Ministerial Inquiry into Land Use and ongoing work with the Tairāwhiti Forestry Action Group includes understanding the effects of forestry on the range of aspects the Climate Change Commission has noted in its recommendation.</p> | <p>Stakeholders generally supported encouraging afforestation through appropriate incentives. There was wide support for restoring credibility in the New Zealand Emission Trading Scheme.</p> <p>Stakeholders also supported the afforestation on Crown-owned land policy and exploring opportunities for native afforestation.</p> |
| <p>22) Simplify planning and increase investment in integrated transport infrastructure and services that optimise public and active transport</p> | <p>MOT</p> | <p>Partially aligned with policy currently proposed in the draft ERP2 (Previously supporting policy being considered outside of Discussion Document)</p> | <p>This recommendation has two main parts:</p> <p>The Commission highlighted that planning and consenting processes are too complex and slow to deliver the transport infrastructure needed for a low emissions New Zealand. Outside of ERP2, the Government is progressing its Fast Track Consenting legislation. This bill is intended to simplify and speed up the consenting process, including for transport infrastructure. While this may address some of the system-wide consenting bottlenecks identified by the Commission, it will not by itself necessarily contribute to a low emissions transport system; it will also be available for infrastructure that may contribute to induced demand/increased transport emissions (e.g., Roads of National Significance).</p> <p>The Commission also recommended increasing investment directed toward optimising public and active transport. The Government Policy Statement on land transport 2024-27 (GPS) and the associated National Land Transport Plan 2024-27 (NLTP) have been released. These cover the first two years of EB2. They will also influence the last 3 years of EB2, although the next GPS and NLTP will be released in 2027.</p> <p>NLTP 2024-27 forecasts investment of \$3.73 billion for public transport services and \$2.64 billion for public transport (PT) infrastructure (out of a total investment of \$32.9 billion, or 19% of funding). This compares to \$2.6 billion for PT services and \$2.3 billion for PT infrastructure in NLTP 2021 (out of a total of \$24.3 billion, or 30% of funding). It also forecasts investment of \$460 million in "footpath and cycleway improvement and maintenance" (1.4%) - although there is no funding for new projects. This decreased from a forecast of \$910 million for walking and cycling in NLTP 2021 (3.7%).</p> | <p>The next GPS for 2027 – 2037 will impact the final three years of EB2 and extend into EB3 and beyond.</p> |

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| | | | <p>This means there is an increase in absolute forecast funding for PT services and infrastructure, but a decrease in the relative share of funding. There is a decrease in both absolute and relative spending on active transport.</p> <p>On this basis, MoT consider there is partial alignment between this recommendation and ERP2 (and some Government priorities currently outside ERP2).</p> | |
| 23) Provide dedicated long-term funding for the construction of integrated cycle and rapid transport networks in major population centres | MOT | Partially aligned with policy currently proposed in the ERP2 (Previously aligns with Discussion Document) | <p>There are two main parts to this recommendation:</p> <p>The Commission highlights that dedicated, long-term funding is needed. GPS 24 signals that the Government intends to amend the Land Transport Management Act to require future Government Policy Statements on land transport to adopt a 10-year investment plan, bringing it into alignment with local government Long Term Plans (LTPs), and providing the NZTA Board with greater confidence and certainty to invest in long-term projects and deliver on a long-term transport infrastructure pipeline. This will provide greater long-term certainty of funding.</p> <p>As above, GPS24 and NLTP24 increase absolute funding for PT infrastructure and PT services. The ERP2 and GPS 2024 highlight 5 major rapid transit/PT projects, and NLTP will prioritise delivering 3 of these over its term, and planning the other two. There is not comparable dedicated, long-term funding for constructing cycle networks.</p> <p>On this basis, MoT consider there is partial alignment between this recommendation and ERP2 (and some Government priorities currently outside ERP2).</p> | The next GPS for 2027 – 2037 will impact the final three years of EB2 and extend into EB3 and beyond. |
| 24) Rapidly upscale vehicle charging infrastructure, including removing existing barriers | MOT/MBIE | Aligns with policy currently proposed in the ERP2 | <p>The Commission recommends that charging network rollout leads EV uptake, in order to support consumer demand for EVs. This is in line with the Government's commitment to enable a network of 10,000 public charge points by 2030. This aims to roll out charging infrastructure ahead of demand and provide consumers with the confidence to move to EVs.</p> <p>The Commission's report also touches on specific challenges and barriers relating to EV charging:</p> <ul style="list-style-type: none"> • The capacity of electricity distribution lines presents a major constraint for the rollout of charging infrastructure which can create first-move disadvantage on some distribution networks. <ul style="list-style-type: none"> ○ Regulatory work programmes are ongoing to address costs of connecting to electricity networks and promote consistency of processes across electricity distribution businesses. • Increasing numbers of electric vehicles will raise residential electricity demand. Smart charging is a tool to manage this and maximise benefits for both consumers and electricity networks. <ul style="list-style-type: none"> ○ Under the Government's Supercharging EV Infrastructure work programme, there are actions underway to promote the uptake of smart chargers and to enable the Energy Efficiency and Conservation Authority to set standards for smart devices. • Focused policy interventions are likely to be necessary to scale up charging capacity for renters and those without dedicated parking space. <ul style="list-style-type: none"> ○ The Government's current focus of work is on scaling up the public charging network which will go some way in providing charging solutions for those who are unable to charge at home. <p>On this basis, MoT consider there is alignment between this recommendation and ERP2.</p> | |
| 25) Accelerate the uptake of zero emissions commercial vehicles, including vans, utes, trucks and offroad vehicles | MOT | Aligns with policy currently proposed in the ERP2 | <p>The Government has launched the Low Emissions Heavy Vehicle Fund (LEHVF), which will provide \$27.75 million to support the uptake of these vehicles. This is targeted at vehicles with a gross vehicle mass of 5.9 tonnes. This means it corresponds to the heavier end of the Commission's recommendation (but not the vans and utes at the lighter end). A review of the Vehicle Dimension and Mass (VDAM) Rule may also remove some regulatory barriers constraining the uptake of these vehicles.</p> | The funding is a one off. If the fund is fully subscribed, it could be renewed as part of an adaptive management approach to EB2. |
| 26) Ensure the use of landfill gas capture systems and technologies is widespread and efficient. | MfE | Aligns with policy currently proposed in the draft ERP2 | <p>MfE is actively working on ERP2 policy proposals under the Minister for the Environment's Waste portfolio that are aligned to these recommendations. Note, in line with the consultation proposal, regulatory change proposals will likely be required to progress against these actions.</p> | Subject to Minister for the Environment and Cabinet consideration, waste proposals aligned to these recommendations are proposed for ERP2. |
| 27) Improve the accuracy and transparency of landfill gas capture data. | MfE | Aligns with policy currently proposed in the draft ERP2 | <p>MfE is actively working on ERP2 policy proposals under Minister for the Environment's Waste portfolio that are aligned to these recommendations. Note, in line with the consultation proposal, regulatory change proposals will likely be required to progress against these actions.</p> | Subject to Minister for the Environment and Cabinet consideration, waste proposals aligned to these recommendations are proposed for ERP2. |

Appendix 2: Key messages of the Climate Change Commission's advice on the policy direction of ERP2

Messages

What we heard | [Government has a key role to enable people to play their part and contribute to emissions reduction](#)

The Commission has stated that clarity on the Government's direction of climate change policy is essential to support action, along with a cohesive and aligned approach across sectors and between central and local government.

It also noted a risk that New Zealand's institutional and regulatory environment is not sufficiently aligned to meet the second emissions budget or long-term targets.

The Commission recommends the Government align and coordinate institutional and regulatory outcomes within and between levels of government and across all sectors of the economy to support the coherent implementation of the second emissions reduction plan.

The task ahead | [New Zealand's emissions are decreasing, but more action is needed across the economy](#)

The Commission is clear that while New Zealand's emissions are decreasing, further action is needed at all levels of government and across all sectors.

The Commission stresses that this action also creates opportunities, including a healthier, more prosperous country, cleaner air, lower energy costs, new market opportunities and safer, more stable environments. It also notes that investing in climate action now will save costs in the long-term.

The path to net zero | [Clarifying the extent to which you wish to reduce gross emissions \(and rely on removals\) will make New Zealand's climate change goals more achievable. These decisions will have a range of implications.](#)

The Commission notes that Government has choices about the balance of gross emissions reductions (emissions reduced at the source) and carbon dioxide removals (primarily by forests) it will use to reach and sustain net zero emissions of long-lived greenhouse gases by 2050.

It suggests that different choices will have different implications. For example, while forestry is currently a cost-effective option, a decision to rely heavily on removals will not be viable long-term and also create risks, due to forests' vulnerability to events such as forests and floods. A decision to reduce gross emissions, on the other hand, may involve higher upfront costs in the short-term, but result in a number of benefits and opportunities (e.g. new market opportunities, healthier homes).

The Commission suggests that clarifying the preferred balance of gross reductions and removals can make New Zealand's climate goals more achievable and recommends that the Government:

- commit to specific levels of gross emissions and removals for the second and third emissions budgets and align policies to achieve or exceed those reductions.
- communicate indicative levels of gross emissions and removals out to 2050 and beyond to guide policy decisions.
- Develop these committed and indicative levels in partnership with iwi/Māori.

Emissions pricing | [Changes to the NZ ETS are needed to drive the Commission's recommended levels of gross reductions](#)

The Commission's analysis shows that the current structure of the New Zealand Emissions Trading Scheme (NZ ETS) creates a strong incentive for planting trees. However, this also means that it is highly unlikely to drive the gross emissions reductions recommended by the Commission.

The Commission stresses the importance of reducing New Zealand's gross reductions and the benefits that can result, including from modernising the economy and ensuring New Zealand is competitive in a low-emissions world. The Commission also notes the impacts that extensive afforestation is likely to have for people and regions affected by land-use change.

The Commission recommends that aligning the emissions pricing system with the desired levels of gross emissions for the second and third emissions budget, and with the net zero 2050 target, by:

- amending the NZ ETS to separate the incentives for gross emissions reductions from those applying to forests
- providing durable incentives for forestry removals through to, and beyond, 2050.

Investment and finance | [You will need to remove the barriers to mobilise public and private investment in the transition](#)

The Commission identifies investment and finance as fundamental to emissions reductions in every sector and notes that investing in emissions reductions now will save costs in the long-term. However, it also notes that several barriers that currently prevent the mobilisation of investment at the pace and scale required to meet emissions budgets and support climate resilience goals.

The Commission recommends that the Government reduces these barriers – including regulatory, institutional, and ownership barriers – to mobilise public and private investment required to meet emissions budgets. Its advice presents several options for the Government to consider.

Research, science, innovation and technology | Targeted investment, increased coordination and facilitation is needed to ensure the RSIT system supports New Zealand’s climate change goals

The Commission notes that meeting emissions budgets will require accelerated transformation of New Zealand’s research, science, innovation, and technology (RSI&T) system, which provides knowledge and insights to develop new low emissions options that are domestically relevant and affordable. The RSI&T system can also make existing solutions more accessible across the country.

The Commission recommends that the Government provide adequate targeted investment and increased coordination and facilitate widespread sharing of freely available climate change data and information to enable a research, science, innovation, and technology system that supports achieving emissions budgets and the 2050 target.

Whāia ngā tapuwae | Iwi and Māori have a key role in meeting New Zealand’s climate change goals, but require appropriate funding and resources

To achieve a fair, equitable and inclusive transition for Māori, the Commission suggests that the Government should consider the role of iwi/Māori in the country’s approach to reducing emissions as well as their specific, localised needs. This includes ensuring iwi/Māori are resourced and enabled to accelerate emissions reduction in accordance with tikanga and mātauranga Māori, while also realising the aspirations of their people and communities.

The Commission recommends that the Government:

- introduce ways to directly allocate resources to iwi/Māori and augment funding to Māori landowners to enable them to accelerate emissions reductions and removals in accordance with their assessments and priorities.
 - ensure iwi/Māori are empowered to weave mātauranga Māori into policy design, development, and implementation at central and local government levels. This includes providing sufficient resources.
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An equitable transition | A comprehensive Equitable Transitions Strategy is critical to achieving a fair, equitable and inclusive transition and should be expanded to include adaptation

The Commission considers that the Equitable Transitions Strategy currently in development is critical to achieving a fair, inclusive and equitable transition and notes that its implementation is urgently needed to manage equity impacts in the second budget period.

The Commission specifically recommends that the Government:

- expands the scope of the Equitable Transitions Strategy to include the impacts of climate change and adaptation as well as mitigation.
 - ensure that the upcoming Equitable Transitions Strategy provides a comprehensive response to manage equity during the transition to a low emissions economy.
 - manages the impacts of climate policies using existing policy levers in the period before the Equitable Transitions Strategy is implemented, rather than delaying climate action.
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Agriculture | An effective agricultural emissions pricing system is key to reducing agricultural emissions, as is enhanced advisory and extension services for farmers

Building on its previous advice, the Commission recommends that the Government advances the agricultural emissions pricing system to continuously broaden the range of recognised low emissions practices and technologies, and to incentivise gross biogenic methane emissions reductions in a manner consistent with achieving the biogenic methane components of the 2050 target. It suggests that the pricing system recognises existing low emissions practices, such as alternative feed types and technologies in the pipeline like methane inhibitors.

The Commission also recommends that the Government enhance advisory and extension services to farmers to accelerate land-use diversification and uptake of the technology and practices required to reduce gross emissions in line with emissions budgets and the 2050 target. It further recommends that these services are co-designed, coordinated, and implemented in partnership with iwi/Māori, and developed in collaboration with industry.

Built environment | An integrated approach to buildings, urban form and infrastructure could provide opportunity for long-term emissions reductions, with linkages to adaptation and resilience

The way cities, towns, and communities are designed affects emissions from land use, transport, buildings, energy, and waste. The Commission notes that well-integrated policy, planning, and funding decisions related to the built environment can help to meet the second emissions budget and New Zealand’s longer-term climate goals.

The Commission recommends that the Government:

- ensures planning systems are integrated and support building urban areas upward and mixing uses in order to reduce emissions, while decreasing susceptibility to climate-related risks
 - accelerates comprehensive retrofits to deliver healthy, resilient, low emissions buildings
 - prevents the installation of new fossil gas infrastructure and connections in buildings except where there are no technically viable low emissions alternatives.
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Circular and bioeconomy | Growing New Zealand’s circular and bioeconomy provides an opportunity to simultaneously reduce emissions and reap economic benefits

The Commission notes that a circular and bioeconomy can optimise energy and resource use, result in significant emissions reductions and potentially increase the overall value of the economy.

The Commission recommends that the Government:

- strengthens product stewardship and expanding coverage across products and packaging to help avoid emissions associated with waste
 - declares construction material wood waste as a priority product to help reduce emissions from construction and demolition waste
 - provides overarching guidance and an enabling regulatory framework to advance a circular bioeconomy that reduces emissions and increases resilience to climate change, ensuring cross-sector coherence.
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Energy and industry | The energy sector will play a significant role in meeting the second emissions budget, where there are key opportunities in electricity and heat production

Noting the significant role that the sector could play in meeting the second emissions budget (potentially contributing 40% of the emissions reductions required), the Commission stresses that renewable electricity generation build needs to scale up quickly.

The Commission recommends that the Government:

- prioritise and accelerate renewable electricity generation build and ensure electricity networks can support growth and variability of demand and supply, further noting that these outcomes should be progressed in partnership with iwi/Māori
- accelerates the decarbonisation of process heat and pursue opportunities to reduce emissions across other industrial sectors.

The Commission also notes that meeting the 2050 target will require steadily phasing down fossil fuel use and maximising the supply and efficient use of renewable energy. It notes that making these changes in a way that focuses on people and communities can deliver positive outcomes across energy affordability and accessibility, community resilience, health, and socio-economic opportunities.

Forests and other carbon stocks | Forestry will have a key role in achieving the net zero component of the 2050 target, but further clarity is needed

The Commission acknowledges the importance of forests to New Zealand's transition, due to their ability to remove and store carbon from the atmosphere. However, it suggests that further policy direction is needed to clarify the role of forests – including the area and types of forestry – to achieve emissions budgets and the 2050 emissions reduction target.

The Commission acknowledges the Carbon Removals Strategy and suggests that it considers the principles of additionality (the concept that activities to carbon removals only matter if they are in addition to the status quo) and permanence (how long carbon is expected to be stored).

Transport | To reduce transport emissions, significant investment is needed in transport infrastructure (including public transport and charging infrastructure)

Transport emissions contributed 18% of New Zealand's gross emissions in 2021. To achieve the 2050 target, the Commission notes that transport emissions need to reduce rapidly.

The Commission states that emissions can be reduced by avoiding, shifting, and improving transport use and recommends that the Government:

- simplify planning and increase investment in integrated transport infrastructure and services that optimise public and active transport.
- provides dedicated long-term funding for the construction of integrated cycle and rapid transport networks in major population centres
- rapidly upscale vehicle charging infrastructure, including removing existing barriers
- accelerate the uptake of zero emissions commercial vehicles, including vans, utes, trucks, and offroad vehicles.

Waste and fluorinated gases | Waste emissions can be reduced by limiting the amount of organic waste that goes to landfills and ensuring that necessary infrastructure is in place

While reductions can be achieved by decreasing the amount of organic material (for example, food and garden waste) that goes to landfill, the Commission acknowledges that this cannot be avoided completely. It recommends that the Government:

- ensures the use of landfill gas capture systems and technologies is widespread and efficient.
- improves the accuracy and transparency of landfill gas capture data
- invests in organic waste processing and resource recovery infrastructure is needed within the second emissions budget period.

To note: these messages are a summary and should be read alongside the Commission's report