Ministry for the Environment
Manatū Mō Te Taiao

Classificati

BRIEFING NOTE

The Climate Change Commission's draft advice for the second emissions reduction plan

Date Submitted:	24 April 2023	Tracking #: BRF-3170	
Security Level	Policy and Privacy Sensitive	MfE Priority:	Urgent

	Action sought:	Response by:
Hon James SHAW, Minister of Climate Change	**Note** the contents of this briefing **Agree to forward** to CRMG colleagues	24 April

Actions for Minister's Office Staff	**Forward** this report to the Climate Response Ministerial Group after the Climate Change Commission has publicly released its draft advice on 26 April 2023 **Return** the signed report to MfE.
Number of appendices and attachments #2	Appendix 1: Talking points to welcome the Climate Change Commission's draft advice Appendix 2: Comparison of the first emissions reduction plan and the Climate Change Commission's draft advice on the second emissions reduction plan Appendix 3: Climate Change Commission's proposed recommendations for the second emissions reduction plan

Key contacts

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The Climate Change Commission's draft advice for the second emissions reduction plan

Purpose

1. This briefing provides you with information to support the public release of the Climate Change Commission's (the Commission) draft advice on the policy direction of the second emissions reduction plan (ERP2)at 5pm on Wednesday, 26 April 2023. This briefing includes:
    - Initial advice on the Commission's draft advice
    - Talking points to welcome the Commission's draft advice **(Appendix 1)**
    - A high-level comparison of the Commission's draft advice compared to the first emissions reduction plan (ERP1) **(Appendix 2)**
    - A table setting out the Commission's proposed recommendations (**Appendix 3**).

2. We have prepared this initial advice on the basis of the draft advice provided to us by your office on Friday, 21 April. The chapters on setting out a path to 2050 (Chapter 3) and emissions pricing (Chapter 4) were missing from the document provided. As a result, this advice does not include the recommendations contained within those chapters.

3. We have written this 'rapid response' with a view to circulating it to the Climate Response Ministerial Group (CRMG) and their agencies to inform their initial response to the Commission's draft findings. Given its market sensitivity, the Commission's advice has been provided to you on a confidential basis and circulation has been strictly limited. As a result, this briefing must only be circulated after the advice has been publicly released at 5pm on Wednesday, 26 April.

The Commission's report contains 19 proposed recommendations

4. Unlike the advice the Commission provided in *Ināia tonu nei* (2021), this draft report is focused solely on recommended policy direction for the next emissions reduction plan.

5. The Commission's 19 proposed recommendations represent the actions the Commission considers necessary to achieve the second emissions budget and ensure New Zealand is on track to achieve the third emissions budget (2031-2035) and beyond.

6. In developing these proposed recommendations, the Commission states that it has:
    - applied a strategic perspective that is informed by the need to achieve the 2050 target and contribute to global efforts to limit average temperature rise to 1.5˚C above pre-industrial levels
    - drawn – and built – on its previous advice by focusing on identifying critical gaps, as well as where existing actions need to be strengthened and accelerated as a matter of urgency

- looked at how emissions pricing is likely to drive change
- identified where barriers – for each sector and across the broader system – currently deter low-emissions choices and how strategic investment can help drive deeper change over the long-term.

7. Each of the Commission's proposed recommendations indicates that it has found evidence of a risk to meeting the second emissions budget and/or New Zealand's long-term climate change goals. The Commission intends them to signal that other actions of equal or greater impact will be required if the Government does not follow the Commission's recommended actions.

8. The Commission's draft advice also emphasises several cross-cutting themes. Considerations for climate change adaptation, Māori-crown relations and an equitable transition have been woven throughout multiple chapters and its proposed recommendations. For example, the Commission proposes that the scope of the equitable transition strategy is expanded to include adaptation.

9. Appendix 2 sets out a high-level comparison of the Commission's draft advice with ERP1. This comparison sets out the key actions from ERP1 against the Commission's proposed recommendations and key comments. Officials will work with other agencies to deliver more detailed advice on the Commission's proposed recommendations in time for a Climate Response Ministerial Group discussion in May 2023.

The Commission's draft advice provides additional information on the task for the second emissions budget and the pathway to 2050

10. The Commission has updated the amount of additional mitigation reductions that will be required to deliver the second and third emissions budgets (EB2 and EB3).

11. Using the December 2022 Biennial Report as its baseline, the Commission calculates that the EB2 will need to deliver between 14 Mt (under the WAM) and 20.7 Mt CO_2e (under the WEM scenario) of additional mitigation and that the third emissions reduction plan (ERP3) will need to deliver between 22.9 and 34.6 Mt CO_2e under the same scenarios. This represents the 'minimum size of the challenge' for ERP2 – that is, the minimum amount of additional mitigation that ERP2 needs to identify. It is important to stress that this is the *minimum* required by EB2 and does not include:

    - any additional actions that can provide dynamic pathway management
    - any actions to close the gap with New Zealand's Nationally Determined Contribution for 2021-2030 (NDC1).

12. As noted above, the Commission did not provide advanced access to its chapter on emissions pricing (Chapter 4). However, the advice did note that the Commission's calculations of the minimum mitigation required assume a higher New Zealand Emissions Trading Scheme (NZ ETS) price through the period (p 47). The role of price will become a crucial theme for ERP2. We consider that it will be important for the Government to use the ERP to clarify its commitment to the NZ ETS cap limiting net emissions, which would

mean allowing the market to set price. This will need to weigh the distributional impacts of potentially higher prices against the higher risk of not meeting emission budgets. The Commission note (p 66) that a rising carbon price is regressive and that suggests that changes to the wider welfare system or a 'carbon dividend' may be required to mitigate these impacts.

13. The Commission anticipates that large emissions reductions must occur in energy generation and process heat to meet EB2[1], and in transport to meet the third emissions budget (EB3). While this largely aligns with what officials had anticipated, it is interesting to note the Commission's transport recommendations are heavily focused on the urban populations, both around electric vehicle usage and around increasing use of non-vehicle travel.

14. In agriculture, the Commission has three main points:

    - That 'in the absence of new technologies' it is unlikely that the agriculture sector will meet its current targets for EB2 (p 44)
    - That an agricultural pricing system is a core part of any response
    - That farmers will need support to accelerate the adoption of 'emissions efficient practices'.

15. The Commission has worked to create an equitable, ambitious, and achievable pathway (the demonstration path). Its analysis estimates the economy will continue to grow under EB2 and EB3, but GDP growth could be 0.5 per cent lower in 2035, and 1.2 per cent lower in 2050 to meet emissions budgets. However, delaying key actions, such as transitioning to electric vehicles, could result in GDP falling by 2.3 per cent in 2050.[2] Officials will work to better understand this analysis over the coming months and will provide a view on this analysis to you in May 2023.

16. The Commission asserts that action is needed now to ensure Aotearoa New Zealand is on track to meet EB2 and EB3. Lags in policy implementation, practical limits, and policy delays can have negative impacts, which compound rapidly and reduce the estimated impacts policies have towards meeting future emissions budgets. The ability to meet EB3 and future emissions budgets will be greatly determined by actions implemented in the first and second emissions budget period.

17. The Commission has identified several risks in the analysis that underpins ERP1. They note that in several sectors, the assumptions used to determine emissions abatements from policies may not eventuate and that, in many sectors, we are tracking towards the 'low

[1] The largest share is expected to come from energy and industry, totalling 17.4 $MTCO_2e$ or around 40 per cent of the total emissions reduction required. The agriculture, forestry, and transport sectors are expected to each deliver a reduction of 7-8 $MTCO_2e$, or around 17 per cent each. The remaining 3.3 $MTCO_2e$, or 9 per cent of emissions reductions required, is expected to come from waste and F-gases.

[2] This is approximately equivalent to one year's GDP growth, so it means NZ will be as rich in 2050 as we would otherwise be in 2049.

impact' scenario, especially in transport. Officials will work to better understand this analysis over the coming months and will provide a response to this analysis in May 2023.

The Commission will consult on its draft advice for eight weeks

18. On 26 April 2023, the Commission will release its draft advice on the policy direction for ERP2. This advice focuses on the high-level steps that are needed to meet New Zealand's second emissions budget (2026-30) and keep us on track to meet the 2050 target. The report contains a set of draft recommendations underpinned by a body of evidence and analysis.

19. The public release of the Commission's advice kick-starts eight weeks of public consultation, which will run from 26 April to 20 June 2023. The integrity of this consultation process is important to help meet the statutory requirements of the Climate Change Response Act 2002 (the Act) and will inform the Commission's final recommendations (due by 31 December 2023).

20. While only draft, the Commission's advice is likely to generate significant media interest and public debate around climate change, including the perceived success of the first emissions reduction plan (ERP1).

21. The Commission's draft advice also provides an indication on the policy direction and recommendations for ERP2 that could be included in its final advice. This provides important insights into its thinking, whilst help guide our early thinking on ERP2.

We have prepared talking points to help you welcome the Commission's draft advice

22. We have developed a set of talking points (**Appendix 1)** to welcome the draft report and promote the consultation process as a key opportunity for New Zealanders to have their say on how we transition to a low-emissions future. The talking points also situate the Commission's draft advice within the wider process for developing ERP2 and indicate next steps.

23. We recommend these talking points be circulated to other members of CRMG after the Commission's advice has been publicly released at 5pm on 26 April 2023.

Next steps

24. This briefing provides a preliminary view of the Commission's draft advice on the policy direction of ERP2. The following table sets out key next steps, including the timing of further advice on the implications of the Commission's advice.

Date	Milestone
24 April 2023	Initial opportunity to discuss the Commission's draft advice at your meeting with officials
26 April – 20 June 2023	Commission's public consultation on its draft advice for ERP2
31 May 2023	Climate Response Ministerial Group (CRMG) discussion on the Climate Change Commission's draft advice
May – June 2023	Detailed cross-agency briefing on the implications of the Commission's advice (following CRMG discussion)
26 July 2023	CRMG item on the proposed approach to ERP2
31 December 2023	Commission to provide its final advice on the policy direction for ERP2

Recommendations

We recommend that you:

1. **Forward** this briefing to the other members of the Climate Response Ministerial Group after the Climate Change Commission's advice has been publicly released on 26 April 2023

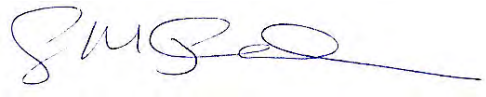
   Yes/No

2. **Return** the signed report to the Ministry for the Environment

   Yes/No

3. **Note** that officials will provide more detailed analysis on the Climate Change Commission's draft advice in June 2023

Signature

Simon Mandal-Johnson Manager – Climate Strategy Climate Business Group	
Date	

Hon James SHAW, Minister of Climate Change	
24 April 2023	

Appendix 1: Talking points to welcome the Climate Change Commission's draft advice

Opening remarks

- Last year, we set the first three emissions budgets and published New Zealand's first emissions reduction plan. However, that was just the beginning.
- As the Commission notes, we need to build on this momentum – and the actions that are being taken by households, businesses and communities – and broaden, strengthen and accelerate action to meet New Zealand's climate change goals.
- On 26 April, the Commission will release its draft advice on the policy direction of the second emissions reduction plan for public consultation.
- We welcome the release of this draft advice and the opportunity for New Zealanders to have their say on the actions that we need to take to reduce our emissions and transition to a low-emissions future in a way that is fair, equitable and inclusive.
- The Commission will be consulting on its advice for eight weeks, between 26 April and 20 June 2023. The details of its consultation are available on the Commission's website, and we encourage New Zealanders to engage in this process.
- The Commission will provide the Government with its final advice on the second emissions reduction plan by 31 December 2023. These recommendations will help to shape New Zealand's second emissions reduction plan.

The Commission's draft advice focuses on actions to achieve the second emissions budget and put us on track to achieve our long-term goals

- In May 2022, New Zealand set the first three emissions budgets. These act as interim targets, setting a limit on the amount of greenhouse gas emissions that are permitted in a five-year period or four years in the case of the first emissions budget.
- Emissions reduction plans contain the actions that will be taken to meet the upcoming emissions budgets and put New Zealand on track to meeting the 2050 target.
- As required by the Climate Change Response Act 2002, the second emissions reduction plan will be published by the end of 2024. This will cover the emissions budget period from 1 January 2026 to 31 December 2030.
- The Commission's report provides draft advice on the policy direction for the second emissions reduction plan.
- The Commission's advice is draft only. The consultation period that has now commenced is an opportunity for the Commission to strengthen its advice, build its evidence base and bring in perspectives from across New Zealand. The Commission will refine its advice ahead of providing its final recommendations at the end of 2023.

- The second emissions reduction plan will represent the Government's response to the Commission's final advice.

Respective roles of the Climate Change Commission and the Government

- The Commission is tasked with providing independent, evidence-based advice to successive governments on the actions needed to achieve New Zealand's climate change goals, including emissions budgets and the 2050 target.
- The government remains the decision maker. This means:
  - considering the Commission's recommendations on the policy direction of the second emissions reduction plan
  - making decisions on the policies and strategies that will be included in the second emissions reduction plan
  - implementing the policies and strategies in the second emissions reduction plan.
- The Commission must provide its final advice on the policy direction of the second emissions reduction plan by 31 December 2023. This will inform the development of the second emissions reduction plan, which the Minister of Climate Change must publish by 31 December 2024.

More substantive talking points

- The cost of transitioning to a low-emissions economy is far outweighed by the cost of inaction.
- We have a responsibility to future generations to take action now to mitigate the effects of climate change. Delaying action will only make it more difficult and expensive to address in the future.
- Events such as Cyclone Gabrielle demonstrate that the impacts of climate change are real and will be experienced now – not just in the future. The Commission's draft advice provides critical guidance on what will be required as we start to develop policies for the second emissions reduction plan.
- The Climate Change Commission has further highlighted how critical renewable electricity generation is in driving decarbonisation of our homes and the energy, transport and industrial sectors.
- System settings need to be in place to enable the significant volume of infrastructure required across all sectors to be consented and built.
- Investing in clean energy and sustainable practices will create new jobs, stimulate economic growth and increase national energy security.

Appendix 2: Comparison of the first emissions reduction plan (ERP1) and the Climate Change Commission's draft advice for the second emissions reduction plan (ERP2)

Please note that, for convenience, this table is organised to align with the structure in the first emissions reduction plan. The Climate Change Commission has organised its recommendations very differently, grouping them into three distinct sections: (1) fundamentals for success; (2) creating low-emissions options; and (3) enabling system transformation.

#	Chapter in ERP1	Key actions in ERP1	Commission's proposed recommendations	Key comments in the Commission's draft advice
1	**PLAYING OUR PART**	N/A	N/A	N/A
2	**EMPOWERING MĀORI**	The Government is working with Māori to: • Embed partnership and representation - – to uphold Te Tiriti principles, processes and mechanisms will be resourced and designed alongside Māori to help tangata whenua to actively participate in the climate response. • Support Māori-led strategy and alignment strategy and action plan – to elevate te ao Māori within the climate response, Māori will be supported to define, measure and implement a Māori climate strategy and action plan. • Activate kaupapa Māori, tangata Māori solutions – – to enable community action, kaupapa Māori, tangata Māori actions and solutions for the climate emergency will be funded. Actions to support this work include: • Establish a platform for Māori climate action. • Develop a Māori climate strategy and action plan.	**Whāia ngā tapuwae (Chapter 5, pp 49-57)** **Recommendation 4 (p 53)** Accelerate Iwi/Māori emissions reductions in conjunction with climate change adaptation initiatives by exploring and implementing a mechanism to allocate resourcing direct to Iwi and increase funding to Māori landowners (Te Ture Whenua entities). **Recommendation 5 (p 56)** Ensure Iwi/Māori can drive the integration of mātauranga Māori into policy design, development, and implementation at central and local government level, by delivering sufficient resources to Iwi/hapu.	• The draft report highlights the importance of iwi/Māori leadership and exercising rangatiratanga under te Tiriti for emissions reductions and meeting emissions targets. • It proposes that the Government direct resourcing to mandated Iwi/Māori representatives. • Directly allocating resources will allow iwi/Māori to decide what approach to climate change and emissions reduction is best for them. • Direct allocation will also reduce barriers associated with initiatives designed and administered by central government. • The advice proposes interim mechanisms should be explored while the legislative environment is established, given the urgency to achieve our climate change targets. • Previous advice from the Commission recommended that the government should fund research and development in mātauranga Māori to support policy, strategy technology and innovation. • This advice recommends that research and implementation of this mātauranga should be led by Iwi/Māori to ensure it is applicable to their regionalised needs and knowledge systems. • The draft report also notes the crucial role of Iwi/Māori networks, infrastructure skills and assets during and in response to climate emergencies.
3	**EQUITABLE TRANSITION**	The Government's approach to supporting New Zealanders through the transition is built around five objectives: (1) seize the opportunities of the transition; (2) support proactive transition planning; (3) enable an affordable and inclusive transition; (4) build the evidence base and tools to monitor and assess impacts; and (5) encourage informed public participation. Actions to achieve those objectives include:	**Maintaining and enhancing wellbeing through the transition (Chapter 6, pp 58-68)** **Recommendation 6 (p 63)** Enable a fair, inclusive, and equitable transition for New Zealanders by expanding the scope of the *Equitable Transitions Strategy* to include	• The advice recognises that vulnerability to climate change and from policy to address it and adapt to it is often experienced by the same groups. • As such, it recommends that the Government's Equitable Transitions Strategy be broadened to incorporate transition risks and impacts as well as the direct impacts of climate change.

#	Chapter in ERP1	Key actions in ERP1	Commission's proposed recommendations	Key comments in the Commission's draft advice
		• An equitable transition strategy to help us proactively identify and develop initiatives that are tailored to make the most of the opportunities the transition brings and address the challenges that different groups may face • Initiatives to boost transition-aligned growth in the economy, providing jobs in low-emissions industries • Support for regions and communities to help them plan for a just, equitable and fair transition • Reforms to the education and training system to ensure it supports people to develop the skills needed for a low-emissions economy • Employment support, including retraining and skill-enhancement opportunities and access to income assistance to support workers and households • Tools, advice and support to enable businesses to transition • Transport, energy and waste initiatives to help mitigate impacts on households and whānau • Work to monitor and assess impacts to enable the Government to better respond to impacts of the transition • Public information and education and support for grassroots participation in policy making.	compounding impacts of climate change, and adaptation as well as mitigation. **Recommendation 7 (p 68)** Make use of existing mechanisms to manage impacts of climate policies in the interim, rather than delaying climate action.	• Noting that proactive transition planning is as important for climate change adaptation as it is for emissions reductions. • The advice acknowledges that the impacts of emissions pricing are likely to be moderate but could be inequitable if improperly managed. Options for reducing inequitable impacts are considered, including: - existing welfare system - direct recycling of ETS proceeds. • The report warns that weakening action on climate policy during times of adverse economic conditions is not sustainable and will greatly compromise the ability to meet the climate change targets in the Act.
4	**WORKING WITH NATURE**	• Prioritise nature-based solutions in our planning and regulatory system. • Establish an integrated work programme that delivers climate, biodiversity and wider environmental outcomes. • Report on biodiversity as part of emissions reduction plan reporting. • Encourage global efforts to use nature-based solutions.	**There is no dedicated chapter on working with nature or biodiversity and no proposed recommendations.**	N/A
5	**EMISSIONS PRICING**	• Align NZ ETS settings with emissions budgets. • Adjust the NZ ETS to drive an appropriate balance of gross and net emissions reductions. • Develop an overarching market governance framework. • Align emissions leakage policies with current and future climate response. • Develop a voluntary carbon market framework.	**The emissions pricing chapter (Chapter 4) is missing from the version received on 21 April 2023**	**The emissions pricing chapter (Chapter 4) is missing from the version received on 21 April 2023**

#	Chapter in ERP1	Key actions in ERP1	Commission's proposed recommendations	Key comments in the Commission's draft advice
		• Price agricultural emissions informed by recommendations from He Waka Eke Noa – Primary Sector Climate Action Partnership		
6	**FUNDING AND FINANCE**	• Establish the Climate Emergency Response Fund (with initial down payment of NZ$4.5 billion). • Issue Sovereign Green Bonds. • Build on the success of the New Zealand Green Investment Finance. • Issue the Crown Responsible Investment Framework to Crown Financial Institutions. • Support high-quality investment decisions. • Support investor decisions through world-first climate reporting legislation. • Support responsible investment through default KiwiSaver providers changes. • Support an integrated financial system. • Collaborate with the finance sector to accelerate sustainable finance. • Implement the Carbon Neutral Government Programme to lead by example. • Apply the Government procurement rules to reduce emissions	**Funding and finance (Chapter 14, pp 153-159)** **No proposed recommendations**	**Key advice:** • There is a need to identify ambitious and measurable financial commitments for the second emissions budget period, in areas like; renewable energy, electrification, reducing methane emissions, new energy technologies, public transport, low emissions public services (like hospitals and schools) • Despite the growing costs of adaptation and disaster management, investments in lowering emissions cannot be delayed. (Study: for every £1 spent on climate related risk reductions, between £3-50 are saved through avoidance of disaster impacts) • The Government need to ensure there is adequate funding for low emissions investments • There is a need for developing a unifying strategy to support decision-making- including in climate finance • More must be done to encourage and enable the private sector to shift to sustainable finance • Regular review of funding is needed to measure impact
7	**PLANNING AND INFRASTRUCTURE**	• Improve the resource management system to promote greenhouse gas emissions reductions and climate resilience. • Support emissions reductions and climate resilience via policy, guidelines, direction and partnerships on housing and urban development. • Address infrastructure funding and financing challenges so we can develop low-emissions urban environments and use infrastructure efficiently. • Improve the evidence base and tools for understanding and assessing urban development and infrastructure greenhouse gas emissions. • Promote innovation to reduce emissions in Crown-led urban regeneration projects. • Identify ways to support the private sector to deliver low-emissions development.	**Built environment (Chapter 8, pp 79-91)** **Recommendation 10 (p 83)** Implement an integrated planning system that builds urban areas upward and mixes uses while incrementally reducing climate risk.	• **The draft report highlights the importance of further system integration, incentives, and access to information** • To improve emissions reduction potential, transport and development for an urban area could be implemented on a consistent and coordinated network basis • Integration should also consider funding across central Government, local government, private funding • Targeted support to retrofits of existing infrastructure are needed • Resource management reform needs to take into consideration climate change impacts as some of the outcomes could be in conflict • The Carbon Neutral Government Programme could lead by example through procurement

#	Chapter in ERP1	Key actions in ERP1	Commission's proposed recommendations	Key comments in the Commission's draft advice
		• Integrate climate mitigation into central government decisions on infrastructure.		• It will be important for urban planning and design to fulfil obligations under Te Tiriti o Waitangi
8	**RESEARCH, SCIENCE, INNOVATION AND TECHNOLOGY**	• Provide tools to support knowledge development, help sectors to transition and unlock new opportunities. - Work towards mission-focused climate innovation platforms to coordinate action on the greatest climate challenges facing Aotearoa. - Reorientate the science system to improve its ability to service a low-emissions future. - Scale up and further target research funding and innovation support programmes. • Develop strategic partnerships domestically and internationally to ensure research and innovation has greater impact. - Support Māori to use the power of mātauranga in the transition. - Attract leading innovators to build a sustained research and development presence in Aotearoa. - Partner internationally on low-emissions initiatives with leading researchers and frontier firms.	**Research, science, innovation and technology (Chapter 13, pp 148-152)** **No proposed recommendations**	• **Identifies actions focused on increased access and uptake of new knowledge and technologies** • Focus on Government's role in enabling and driving innovation through; regulation, procurement, trade agreements, work force development, standard- setting etc. • There is a need to establish a clear set of priorities to help guide investment, setting clear and long-term expectations • Government action requires; growing capabilities in the workforce, increasing access to information, continuity in funding • Removing barriers to innovation, such as paywalls for data and unclear/outdated regulations, is required to facilitate RSI&T • A focus on the digital economy is needed- more digital skills, connectivity, security, and regulation
9	**CIRCULAR ECONOMY AND BIOECONOMY**	• Commence a circular economy and bioeconomy strategy. • Invest in data collection and research. • Integrate circular practices across government, communities and businesses. • Support businesses moving to circular economy business models. • Investigate a circular economy hub. • Accelerate the supply and uptake of bioenergy. • Support research and development and accelerate investment in the bioeconomy	**Circular economy and bioeconomy (Chapter 15, pp 160-174)** **No proposed recommendations**	• Working in partnership with Iwi/Māori, the Government needs to commit to circular and bioeconomy strategy development and implementation, and that implementation occurs in the second emissions budget period with appropriate budgetary provision and resourcing. • Establish necessary resourcing, information, data and tools to reduce both production-based and consumption-based emissions. The draft advice notes that accounting for the embodied carbon products, goods and services will be an important component of this. • For bioeconomy, emissions intensive goods and services can be displaced through the bioeconomy and there is a need to close the information gap to bio-products are trusted replacements for conventional products
10	**TRANSPORT**	• Reduce reliance on cars and support people to walk, cycle and use public transport including by: - improving the reach, frequency and quality of public transport and making it more affordable for low-income New Zealanders	**Transport (Chapter 11, pp 121-136)** **Recommendation 16 (pp. 128)** Simplify planning and increase funding of integrated transport networks that optimise public and active transport. For major population centres, the	• Transport emissions need to decrease rapidly over successive emissions budget periods. • The Commission propose draft recommendations to decrease transport emissions through changes to urban form, infrastructure supporting more active and public transport,

#	Chapter in ERP1	Key actions in ERP1	Commission's proposed recommendations	Key comments in the Commission's draft advice
		- increasing support for walking and cycling, including initiatives to increase the use of e-bikes - ensuring safer streets and well-planned urban areas. • Rapidly adopt low-emissions vehicles including by: - continuing to incentivise the uptake of low- and zero-emissions vehicles through the Clean Vehicle Discount scheme and consider the future of the road user charge exemption for light electric vehicles beyond 2024 - increasing access to low- and zero-emissions vehicles for low-income households by supporting social leasing schemes and trialling an equity-oriented vehicle scrap-and-replace scheme - improving EV-charging infrastructure across Aotearoa to ensure that all New Zealanders can charge when they need to. • Begin work now to decarbonise heavy transport and freight including by: - providing funding to support the freight sector to purchase zero- and low-emissions trucks - requiring only zero-emissions public transport buses to be purchased by 2025 - supporting the uptake of low-carbon liquid fuels by implementing a sustainable aviation fuel mandate and a sustainable biofuels obligation	Government should also complete cycleway networks by 2030 and take steps to complete rapid transport networks by 2035. **Recommendation 17 (pp. 133)** Rapidly resolve the barriers to scaling up vehicle charging infrastructure **Recommendation 18 (pp. 135)** Develop incentives to accelerate the uptake of zero emission commercial vehicles, including vans, utes and trucks.	improving emissions efficiency of transport by replacing fossil-fuelled vehicles with low carbon alternatives. • The planning and funding systems for transport, needs to be simplified and integrated to deliver transport infrastructure at the required pace, and to provide New Zealanders with low emissions options to connect. • Transitioning to zero emissions battery electric vehicles is needed as quickly as possible. Outside of urban centres, private vehicles are often the only available practical mode of transport for medium or long-distance trips. • Vehicle charging infrastructure is likely to limit electric vehicle uptake unless existing barriers are removed. • The second ERP plan must rapidly resolve the barriers to scaling up vehicle charging infrastructure for both the light and heavy vehicle fleets. • The Government should set a phase out date for the importation of ICE vehicles and send a signal to car manufacturers in line with other major economies. • Decarbonising transport can support Māori to access places essential for identity and wellbeing, and address inequities. • Transport infrastructure has been underfunded, especially that which supports active and public transport. • The Government could explore bringing car sharing and e-bikes into the funding framework with incentives intended to reduce overall costs to expand access to quality transport options. • Supporting rail and coastal shipping provides resilience to climate impacts. Continued investment for coastal shipping will be needed to upgrade port infrastructure to support increasing freight volumes and build resilience to increasing risk from extreme weather events and sea level rise. • New Zealand needs to prepare now to enable future decarbonisation of aviation; the biggest opportunity is for sustainably produced drop-in biofuels as a component of aviation fuels.
11	**ENERGY AND INDUSTRY**	• Use energy efficiently, lower costs and manage demand for energy by: - improving business and consumer energy efficiency through programmes such as Equipment Energy Efficiency	**Energy and industry (Chapter 9 – pp 92-112)** **Recommendation 13 (p 101)** Prioritise and accelerate renewable electricity generation build and ensure electricity distribution	• The draft advice highlights that energy supply and industrial emissions need to significantly reduce in the second emissions budget.

#	Chapter in ERP1	Key actions in ERP1	Commission's proposed recommendations	Key comments in the Commission's draft advice
		(E3), Gen Less and Support for Energy Education in Communities - helping low-income New Zealanders have warmer, drier homes through Warmer Kiwi Homes. • Ensure the electricity system is ready to meet future needs by: - investigating the need for electricity market measures to support the transition to a highly renewable electricity system and investigating options for electricity storage in dry years - reducing barriers to developing and efficiently using electricity infrastructure, including transmission and distribution networks - supporting renewable and affordable energy in communities through the Māori and Public Housing Renewable Energy Fund.	networks can support growth and variability of demand and supply. **Recommendation 14 (pp 107-8)** Pursue more widespread process heat decarbonisation and establish mechanisms for other industrial sectors and processes to decarbonise.	• Renewable electricity generation needs to increase quickly to reduce electricity generation emissions and support the electrification and decarbonization of transport and heat. • We need to build twice the generation currently being built between now and the end of the second emissions budget - about two large wind farms each year - to meet the updated demonstration pathway. • Policy settings and the consenting system need to be simplified to make renewable build easier and quicker. • We need to dramatically reduce the use of fossil gas and coal for baseload electricity generation. • The NZ ETS can drive most of the energy system's decarbonization, but complementary policies are needed to ensure it is equitable and to address non-price barriers. • Improving grid resilience has become increasingly urgent due to recent cyclone and flooding events in early 2023. • Fossil gas should be used as support for renewable electricity generation rather than as baseload. Biogas needs government support to become available at affordable prices. Industry • Low-emissions hydrogen is necessary for some applications, but there are alternative, more efficient, cheaper, and less impactful decarbonization options for most potential uses. • The government may have overestimated how quickly process heat emissions can be reduced, and coordination of biomass supply is needed to address industry uncertainty.
12	**BUILDING AND CONSTRUCTION**	• Reduce the embodied carbon of construction materials by supporting innovation and regulating to promote the use of low-emissions building design and materials. • Accelerate the shift to low-emissions buildings by promoting good examples, providing incentives and supporting the use of low-emissions practices. • Improve building energy efficiency by amending the Building Code and measuring energy performance to ensure buildings are designed, and retrofitted, to use less energy for heating and cooling. • Shift energy use from fossil fuels by developing a gas transition plan and understanding the impacts of transition for households and communities.	**Built environment (Chapter 8, pp 79-91)** **Recommendation 11 (p 89)** Incentivise comprehensive retrofits to deliver healthy, resilient, low emissions buildings. **Recommendation 12 (p 89)** Prohibit the new installation of fossil gas in building where there are affordable and technically available low emissions alternatives in order to safeguard consumers from the costs of locking in new fossil gas infrastructure	• See the key comments in planning and infrastructure

#	Chapter in ERP1	Key actions in ERP1	Commission's proposed recommendations	Key comments in the Commission's draft advice
		• Establish foundations for future emissions reduction by improving emissions data for buildings and materials, building relationships with Māori, and progressing behaviour change and workforce transition programmes.		
13	AGRICULTURE	• Price agricultural emissions. - Introduce an agricultural emissions pricing mechanism by 2025. - Support early adopters of low-emissions practices. • Accelerate mitigation technologies. - Establish a new Centre for Climate Action on Agricultural Emissions to drive a step change in mitigation technology innovation and uptake on farms. • Support producers to make changes. - Fund tikanga-based programmes to support needs and aspirations of Māori. - Introduce climate-focused extension and advisory services. • Transition to lower-emissions land uses and systems. - Develop food and fibre science and mātauranga Māori accelerators.	**Agriculture (Chapter 7, pp 69-78)** **Recommendation 8 (p 77)** Enhance advisory and extension services to farmers to enable them to respond to pricing and accelerate the adoption of emissions-efficient practices, appropriate land-use diversification, and emerging technologies to reduce gross emissions. These services should be co-designed and implemented in partnership with Iwi/Māori. **Recommendation 9 (p 78)** Advance the agricultural emissions pricing system to: a) Enable recognition of a broader range of emissions-reducing practices and technologies, and b) Incentivise gross emissions reductions in line with the 2050 target.	**Agricultural emissions pricing system** • The draft advice notes that it is critical that the Government quickly advances its proposed farm-level pricing system to a more detailed pricing system in the second emissions budget period, to create more long-term incentives to reduce emissions. **Technologies for reducing on-farm emissions and food safety regulation** • The draft advice focuses on the need to streamline the approval process for new emissions reduction technologies. • It stresses that new technologies must not negatively impact the environment or human and animal health. New Zealand's food safety system needs to ensure agricultural products are safe, while minimising barriers to the regulatory approval of new technologies. **Building resilience in the agriculture sector** • The draft advice recognises the benefits of diversification of agricultural land use, including changes from agriculture to forestry or horticulture. It also notes the barriers and risks. • The draft advice notes that investment in science is needed to identify options for land diversification on a regional basis. **Supporting producers to make changes** • The draft advice focuses on the need for a trusted and skilled farm advisory system, and that collaborating with farmers and industry is critical in the design of the system. • Sufficient investment in programmes and advisory services that focuses on the specific needs of Iwi/Māori is necessary (and services co-designed with Iwi/Māori). • Investment in training and upskilling workforce • The draft advice also recognises that land use change has impacts on rural communities and the need to manage an equitable transition. It is noted that the Equitable Transitions Strategy will be a key vehicle for ensuring an equitable transition.

#	Chapter in ERP1	Key actions in ERP1	Commission's proposed recommendations	Key comments in the Commission's draft advice
14	**FORESTRY**	• Support afforestation by: - considering amendments to the New Zealand Emissions Trading Scheme (NZ ETS) and resource management settings to achieve the right type and scale of forests, in the right place - supporting landowners and others to undertake afforestation, particularly for erodible land - providing advisory services to land users, councils, Māori and other stakeholders to support choices for sustainable afforestation. • Encourage native forests as long-term carbon sinks through reducing costs and improving incentives. • Maintain existing forests by exploring options to reduce deforestation and encourage forest management practices that increase carbon stocks in pre-1990 forests. • Grow the forestry and wood processing industry to deliver more value from low-carbon products, while delivering jobs for communities.	**Forests (Chapter 10, pp 113-120)** **Recommendation 15 (pp 119-120)** Set and implement integrated objectives for the role of forests with respect to emissions mitigation and adaptation, while giving effect to the principles of Te Tiriti o Waitangi/the Treaty of Waitangi.	The draft advice focuses on the need for clear direction and objectives for forests to achieve targets. The Commission stresses that clear direction on the following will provide certainty over the outcomes being sought and guide design of climate policies related to forests: • The quantity of removals desired over the second and third emissions budgets • Expected planting rates over the second and third emissions budgets • Role of forests in the transition to a low emissions economy • The types of forests to be used in different contexts and for different purpose Articulating the role of forests would provide a range of benefits and opportunities • When defining the role of forests, it is important to articulate how the sector will contribute to other environmental, economic, social and cultural outcomes – including increasing resilience to climate change. • The draft advice recognises that broader policies could be introduced that support wider outcomes (i.e. freshwater and biodiversity), once objectives are clearly articulated. The draft advice notes the risks of relying heavily on forests to meet emissions reduction targets. These risks include: • The need for ongoing land conversion will reduce land flexibility and delay the need to reduce gross emissions. • There are several threats to forestry, which will be exacerbated by a changing climate • Risks around rapid and unmanaged exotic afforestation • Challenges related to native afforestation. There is an opportunity for establishment of native forests to occur through natural regeneration, however this will be slow and small-scale without incentives. The draft advice also acknowledges the important role Iwi/Māori have in forestry
15	**WASTE**	• Enable households and businesses to reduce organic waste. - Encourage behaviour to prevent waste at home. - Enable businesses to reduce food waste. - Support participation in improved kerbside collections. • Increase the amount of organic waste diverted from landfill. - Improve household kerbside collections of food scraps and garden waste.	**Waste and fluorinated gases (Chapter 12, pp 137-145)** **Recommendation 19 (p 145)** Apply regulatory and policy instruments to achieve the optimal use and efficiency of landfill gas capture systems and technologies at all landfills	• Reducing emissions from the waste sector is a critical action for achieving the 2030 target for biogenic methane. • The draft advice recognises the importance of long-term waste infrastructure and resourcing recovery planning within Aotearoa and supports the phase out the landfilling of organic waste where appropriate waste diversion facilities exist. • The draft advice focuses on the fact that – even with diversion of organic waste to landfill in place – there will still be a need to

#	Chapter in ERP1	Key actions in ERP1	Commission's proposed recommendations	Key comments in the Commission's draft advice
		- Invest in organic waste processing and resource recovery infrastructure. - Require the separation of organic waste. • Reduce and divert construction and demolition waste to beneficial uses. - Support the building and construction sector to minimise waste through research and improved capability. - Invest in sorting and processing infrastructure for construction and demolition materials. - Enable the separation of construction and demolition materials. • Explore bans or limits to divert more organic waste from landfill. • Investigate banning organic waste from landfill by 2030. - Increase the capture of gas from municipal landfills. - Regulations will require landfill gas capture at municipal (Class 1) landfills. - Feasibility studies will determine the need for additional landfill gas capture requirements. • Improve waste data and prioritise a national waste licensing scheme. - Develop a national waste licensing scheme. - Improve information on greenhouse gas emissions from waste disposal.	Improve the accuracy and transparency of landfill gas capture data by reviewing and strengthening relevant regulatory and policy tools.	mitigate the methane coming from landfills. Organic waste will continue to go to landfill for some time, and even with a diversion system, some organic waste will end up in landfill. The proposed recommendation seeks to improve the incentives to continuously improve the efficiency of landfill gas capture systems to reduce the methane emitted from landfill.
16	**FLUORINATED GASES**	• Build the capability to shift to alternative low-emissions refrigerants. - Develop training and accreditation for handling alternative gases. • Prohibit the import of pre-charged equipment. • Investigate prohibiting F-gases with high GWP. • Introduce a mandatory product stewardship scheme for refrigerants	**Waste and fluorinated gases (Chapter 12, pp 137-145)** **No proposed recommendations.**	• The Commission notes that delivering and implementing the existing actions in ERP1 remains essential. • However, the Commission also identifies several additional actions to support the establishment of a robust regulatory framework for effective emissions reduction. These include: - Ensuring appropriate monitoring and enforcement of robust F-gas regulation (including requirements for F-gas labelling and traceability) - Measures to promote the uptake and safe use of the more volatile gases with low global warming potential (GWP), as well as a robust and transparent refrigerant training, management and tracking framework that reflects industry best practice and is overseen by the government. - Restricting the import of pre-charged equipment with high-GWP F-gases.

Appendix 3: Climate Change Commission's proposed recommendations for the second emissions reduction plan

Chapter	#	The Climate Change Commission's proposed recommendations *The Climate Change Commission proposes that the emissions reduction plan for the second budget period must:*
Chapter 3: Setting out a path to net zero **Chapter 4: emissions pricing**	Chapters 3 and 4 are missing from the document provided. These chapters include proposed recommendations 1, 2 and 3.	
Chapter 5: Whāua ngā tapuwae	**4**	Accelerate Iwi/Māori emissions reductions in conjunction with climate change adaptation initiatives, by exploring and implementing a mechanism to allocate resourcing direct to Iwi and increase funding to Māori landowners (Te Ture Whenua entities).
	5	Ensure Iwi/Māori can drive the integration of mātauranga Māori into policy design, development, and implementation at central and local government level, by delivering sufficient resources to Iwi/hapū.
Chapter 6: Maintaining and enhancing wellbeing through the transition	**6**	Enable a fair, inclusive, and equitable transition for New Zealanders by expanding the scope of the Equitable Transitions Strategy to include compounding impacts of climate change and adaptation as well as mitigation.
	7	Make use of existing mechanisms to manage impacts of climate policies in the interim, rather than delaying climate action.
Chapter 7: Agriculture	**8**	Enhance advisory and extension services to farmers to enable them to respond to pricing and accelerate the adoption of emissions-efficient practices, appropriate land-use diversification, and emerging technologies to reduce gross emissions. These services should be co-designed and implemented in partnership with industry and Iwi/Māori.
	9	Advance the agricultural emissions pricing system to: a. enable recognition of a broader range of emissions-reducing practices and technologies, and b. incentivise gross emissions reductions in line with the 2050 target.
Chapter 8: Built environment	**10**	Implement an integrated planning system that builds urban areas upward and mixes uses while incrementally reducing climate risks.
	11	Incentivise comprehensive retrofits to deliver healthy, resilient, low-emissions buildings.
	12	Prohibit the new installation of fossil gas in buildings where there are affordable and technically viable low emissions alternatives in order to safeguard consumers from the costs of locking in new fossil gas infrastructure.

Chapter 9: Energy and industry	**13**	Prioritise and accelerate renewable electricity generation build and ensure electricity distribution networks can support growth and variability of demand and supply.
	14	Pursue more widespread process heat decarbonisation and establish mechanisms for other industrial sectors and processes to decarbonise
Chapter 10: Forests	**15**	Set and implement integrated objectives for the role of forests with respect to emissions mitigation and adaptation, while giving effect to the principles of te Tiriti o Waitangi/the Treaty of Waitangi.
Chapter 11: Transport	**16**	Simplify planning and increase funding of integrated transport networks that optimise public and active transport. For major population centres, the Government should also complete cycleway networks by 2030 and take steps to complete rapid transport networks by 2035.
	17	Rapidly resolve the barriers to scaling up vehicle charging infrastructure.
	18	Develop incentives to accelerate the uptake of zero emission commercial vehicles, including vans, utes and trucks.
Chapter 12: Waste and fluorinated gases	**19**	a. Apply regulatory and policy instruments to achieve the optimal use and efficiency of landfill gas capture systems and technologies at all landfills. b. Improve the accuracy and transparency of landfill gas capture data by reviewing and strengthening relevant regulatory and policy tools.