



**Climate Change**  
CHIEF EXECUTIVES BOARD

# **Climate Change Chief Executives Board**

**Meeting papers  
Wednesday 9 July 2025  
2:00–3:15pm**

**Meeting venue: online via MS Teams**



# Karakia

## Karakia tīmatanga: opening

Tuia i runga

Unite above

Tuia i raro

Unite below

Tuia i roto

Unite without

Tuia i waho

Unite within

Tuia i te here tangata

Listen to the night

Ka rongo te pō

Listen to the world

Ka rongo te ao

Now we come together

Haumi ē, Hui ē, Tāiki ē

As one.

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## Karakia whakamutunga: closing

Kia whakairia te tapu

Restrictions are moved aside

Kia wātea ai te ara

So the pathway is clear

Kia turuki whakataha ai

To return to everyday activities.

Haumi ē, hui ē, tāiki ē

## Climate Change Chief Executives Board

## MEETING AGENDA

Wednesday 9 July 2025, 2:00-3:15pm

Online via MS Teams

<b>Attendees</b>	James Palmer (Chair, MfE), Bede Corry (MFAT), Dave Gawn (NEMA), Iain Rennie (TSY), Aaron Martin (CL)
<b>Delegates</b>	Jane Chirnside (MPI), Paul Stocks (MBIE), Richard Ward (DIA), Steph Rowe (DOC)
<b>In support</b>	Kirsty Flannagan, Amy Tisdall, Rachael Church (CCIEB Unit); Sam Buckle, Mark Vink (MfE)
<b>Apologies</b>	Carolyn Tremain (MBIE), Paul James (DIA), Penny Nelson (DoC), Ray Smith (MPI), Ruth Fairhall (MoT)

Previous meeting: 28 May 2025	Current meeting: 9 July 2025	Next meeting: 2 September 2025
<ul style="list-style-type: none"> <li>• CE DPMC – NHB/CCIEB</li> <li>• Board-only: context sharing updates</li> <li>• Implementing the Board’s adaptive management function for New Zealand’s next emissions reduction plan</li> <li>• Oral update: National Adaptation Framework Pillar 1 progress</li> <li>• Board’s terms of reference and operating procedures</li> </ul>	<ul style="list-style-type: none"> <li>• Board-only: context sharing updates</li> <li>• Target 9 quarterly report for 30 June</li> <li>• 9(2)(f)(iv)</li> <li>• Noting items:               <ul style="list-style-type: none"> <li>- Adaptive management update</li> <li>- NAF pillar 1</li> </ul> </li> <li>• Oral update: KPMG review of ENZ model</li> </ul>	<ul style="list-style-type: none"> <li>• Board-only: context sharing updates</li> <li>• Target 9 update</li> <li>• Adaptive management/response to Climate Change Commission’s emissions reduction monitoring report</li> <li>• Adaptation indicators update</li> <li>• Adaptation data governance update</li> <li>• Oral update: COP31</li> </ul>

**Chair's opening comments / karakia tīmatanga**

#	Time	Item	Recommended actions
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## Board-only time

1	15 mins 2:00-2:15pm	<b>Welcome / context sharing updates</b> <b>Lead:</b> Chair / All  Roundtable discussion for sharing any updates on ministerial priorities or climate-related context	
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## Meeting business

2	15 mins 2:15-2:30pm	<b>Target 9 quarterly report for quarter ending 30 June</b> <b>Lead:</b> Kirsty Flannagan (CCIEB Unit)	
		<p>The Board is asked to approve the Target 9 quarterly report for the period ending 30 June 2025, ahead of the report being sent to the Minister of Climate Change on 10 July.</p> <p><b>Supporting paper:</b>          2.1 Target 9 quarterly report for QE 30 June</p>	<p>a. <b>Note</b> the on-track status and trajectory graph is unchanged and will be updated when 2025 projections are released</p> <p>b. <b>Note</b> that agencies received a copy of the draft Target 9 report on 25 June and their feedback has been incorporated in the final report</p> <p>c. <b>Approve</b> the Target 9 report for the period ending 30 June 2025 to be sent to the Minister of Climate Change</p>

3	15 mins 2:30-2:45pm	<div> <div>9(2)(f)(iv)</div> <div></div> <div></div> </div> <div> <div></div> <div></div> <div></div> <div></div> </div> <div> <p>Item 3 withheld in full under section 9(2)(f)(iv) of the Act including the cover sheet</p> </div>	<div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div>
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		<p><b>Supporting papers:</b></p> <p>3.1 9(2)(f)(iv)</p> <p>3.2 9(2)(f)(iv)</p> <p>3.3 9(2)(f)(iv)</p> <p>Papers 3.1, 3.2, and 3.3 withheld in full under section 9(2)(f)(iv) of the Act</p>	<p>b.9(2)(f)(iv)</p>
Other business / noting papers			
4	10 mins 2:45-2:55pm	<p><b>Noting item: Adaptive management update</b></p> <p><b>Lead:</b> Kirsty Flannagan (CCIEB Unit)</p> <p>This item provides the Board with visibility of the key design details and adaptive management process approved by CSOG in June, and the next stages of this work.</p> <p><b>Supporting papers:</b></p> <p>4.1 Memo: Adaptive management update</p> <p>4.2 Appendix A - Memo: Adaptive management of New Zealand's second emissions reduction plan: key design details (updated post 18 June CSOG meeting)</p>	<p>a. <b>Note</b> the June decisions of CSOG on the design of TRACK, REVIEW, RESPOND</p> <p>b. <b>Note</b> the truncated approach to be taken in 2025 only</p> <p>c. <b>Note</b> that the CCIEB Unit will continue to work with your agencies on the TRACK and REVIEW phases, and, if needed once emissions projections are finalised, on the RESPOND phase</p> <p>d. <b>Note</b> the CCIEB Unit will work with agencies on the initial support to the Minister of Climate Change to table the next annual emissions monitoring report from the Climate Change Commission, due to the Minister on 15 July, and will integrate that analysis into the broader adaptive management process</p> <p>e. <b>Note</b> the next engagement with the Board on adaptive management will be at its September meeting to consider the latest projections and findings from the analysis and to discuss and agree the formation of the advice to Cabinet for October.</p>

5	5 mins 2:55-3:00pm	<b>Noting item: National Adaptation Framework pillar 1</b> <b>Lead:</b> Sam Buckle (MfE)	
		<p>This item provides an update on progress to design a multi-agency work programme of natural hazard data system improvements. An oral update on the wider National Adaptation Framework will also be provided.</p> <p><b>Supporting paper:</b>  5.1 <i>Memo: Natural hazard data system improvements cross-agency work programme*</i></p> <p><i>*Paper to be circulated separately</i></p>	a. <b>Note</b> the update provided
6	5 mins 3:00-3:05pm	<b>Oral update: KPMG review of emissions projections system</b> <b>Lead:</b> James Palmer (Chair)	
		<p>This item provides an update on the external review of the emissions projections system.</p>	a. <b>Note</b> the oral update provided
7	2 mins 3:05-3:07pm	<b>Meeting administration</b> <b>Lead:</b> Chair / Kirsty Flannagan (CCIEB Unit)	
		<p>The Board is asked to approve the minutes of the previous meeting and note the actions register and indicative forward calendar.</p> <p><b>Supporting papers:</b>  7.1 <i>Minutes of previous meeting, 28 May 2025</i>  7.2 <i>Actions register</i>  7.3 <i>Indicative forward calendar to December 2025</i></p>	a. <b>Approve</b> the minutes of the previous meeting b. <b>Note</b> the register of open actions c. <b>Note</b> the indicative forward agenda
Chair's closing comments / karakia whakamutunga			

Next meeting: 2 September 2025



## COVERSHEET: Item 2

To	Climate Change Chief Executives Board			
Meeting date	9 July 2025			
Agenda item name	Target 9 quarterly report for quarter ending 30 June 2025			
Lead agency	CCIEB Unit			
Verbal update	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Supporting paper	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Recommendations	<ul style="list-style-type: none"> <li>• <b>Note</b> the on-track status and trajectory graph is unchanged and will be updated when 2025 projections are released</li> <li>• <b>Note</b> that agencies received a copy of the draft Target 9 report on 25 June and their feedback has been incorporated in the final report</li> <li>• <b>Approve</b> the Target 9 report for the period ending 30 June 2025, to be sent to the Minister of Climate Change</li> </ul>
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Has this item been considered/endorsed by Climate DCEs?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Date	Via email on 25 June 2025
	The Climate Senior Officials Group received a draft copy of the Target 9 report for the period ending 30 June 2025 by email on 25 June, and has endorsed the final report (reflecting agency feedback) being sent to the Minister of Climate Change for approval.			

Target Quarterly Report

Target 9 – Reduced net greenhouse gas emissions

On track to meet New Zealand's 2050 net zero climate change targets with total net emissions of no more than 290 megatonnes from 2022 to 2025 (EB1) and 305 megatonnes from 2026 to 2030 (EB2).

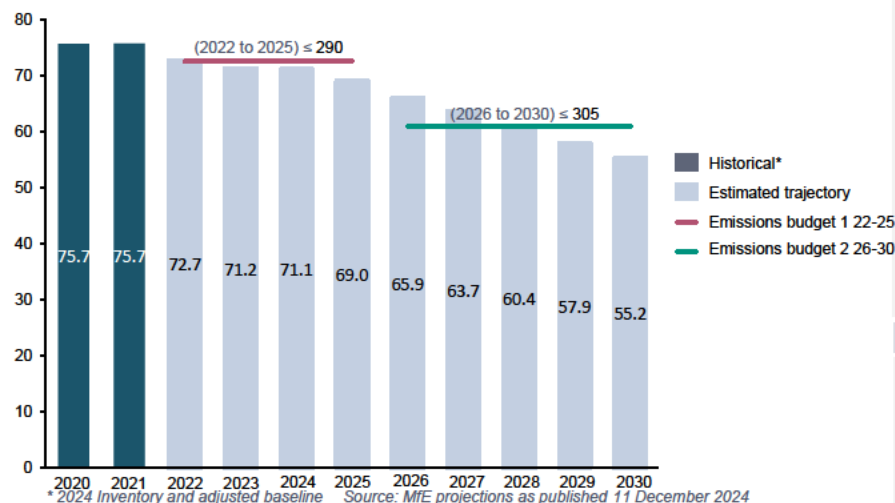
Quarter ending  
30 June 2025

Current Target Performance

Status EB1 & EB2	Emissions Budget 1 (EB1)	Emissions Budget 2 (EB2)	Current Performance
<div></div>	Net emissions ≤ 290 Mt CO <sub>2</sub> -e	Net emissions ≤ 305 Mt CO <sub>2</sub> -e	On track

Trajectory towards target

New Zealand Net Emissions, megatonnes (includes projected impact of ERP2 policies)



What are the key issues and risks?

Existing and planned policies are expected to support achievement of EB1 and EB2, with many ERP2 actions underway. However, projections are inherently uncertain, especially the further out they project. In addition, anticipated abatement from some ERP2 policies is dependent on private sector and market responses to the enabling conditions created by the Government. The adaptive management process will monitor progress

9(2)(f)(iv)

Action and Insights

What is driving changes in performance vs. last period?

The performance rating remains unchanged. The rating is based on New Zealand's most recent (December 2024) official projections, which projected emissions to be 5.9 Mt under EB1 and 1.9 Mt under EB2. Updated official projections are being prepared and will include updated agricultural population, productivity and mitigation technology adoption assumptions. These projections will inform the QE September Target 9 assessment, ETS settings decisions, and ERP2 adaptive management advice.

Projections are updated annually, incorporating updated data, assumptions and policy information. At this stage of compiling the projections, several factors are expected to differ from 2024 assumptions.

Factors that could decrease emissions include:

- additional market driven incentives and other industry announcements;
- higher than expected exotic afforestation in 2025;
- downwards revisions in forecast gas; and
- methodological changes to the Inventory.

Conversely, factors that may increase emissions include:

- ETS prices have been lower than assumed in ERP2, though the impact is marginal; and
- lower likelihood of CCUS projects proceeding, due to constrained gas supply and lower ETS prices.

It is not yet possible to gauge the cumulative impact of these factors, however, once all information is compiled, the overall impact on emissions can be seen. This is expected by late August 2025.

What is the progress of key initiatives that support target delivery?

ERP1 continues to be implemented, ahead of EB1 and ERP1 concluding at the end of 2025. ERP2 and EB2 commence in 2026, with agencies reporting that nearly all ERP2 sector policies and actions are under development or already being implemented. Notable developments on ERP2 action implementation in the QE June period include:

- ETS settings advice received from the Climate Change Commission in April; consultation closed in June;
- Cabinet agreed to improved market governance in the NZ ETS secondary market (NZU market);
- the Government refreshed the Low Emissions Heavy Vehicle Fund to improve incentives and access;
- Bill limiting exotic forest conversions from farmland being registered in the ETS is at select committee;
- consultation on the RMA national direction package commenced in May 2025, supporting Electrify NZ;
- to help meet the 10k EV charge points target, the Government is now providing concessionary loans.

Of the eight ERP2 policies modelled to have the greatest potential to lower emissions, 9(2)(f)(iv) Updated projections will reflect the impact of any changes compared to ERP2 modelling.

What decisions and actions are required from Ministers?

In preparing for ERP2 to come into effect, upcoming milestones include:

- 9(2)(f)(iv)
- Cabinet consideration of adaptive management of ERP2 in mid October (Minister of Climate Change);
- 9(2)(f)(iv)
- Cabinet decisions on ETS settings expected early August (Minister of Climate Change);
- 9(2)(f)(iv)



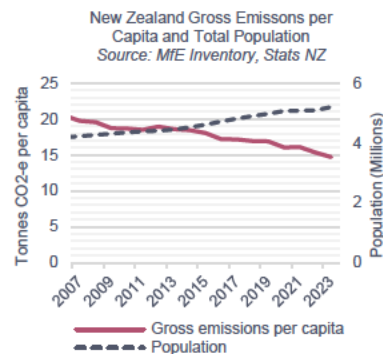
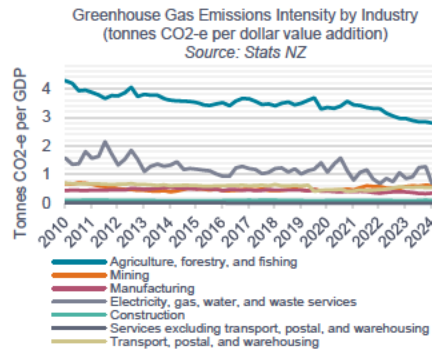
## Target 9 - Supporting Indicators

System indicators show the economy is decarbonising and New Zealand is on track to meet EB1 and EB2. ERP2 commences in 2026 and outlines the pathway for meeting EB2 in line with the Government's climate strategy.

Quarter ending  
30 June 2025

### Economy wide indicators

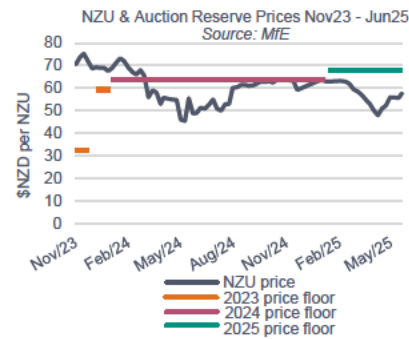
#### Emissions continue to decline in 2023



- In Dec quarter 2024, compared to the same period in 2010, industry emissions fell 11 percent, GDP rose 43 percent and industry emissions intensity dropped 37 percent.
- Emissions intensity decreased over Dec quarter 2024 when compared to last year, driven largely by reductions in electricity, gas, water, and waste services.

- New Zealand's emissions continue to decouple from population growth, though our per capita emissions of 14.7 t CO<sub>2</sub>-e remains higher than the developed country average.

#### NZU price has edged up



- NZU prices steadily declined into late April, due to selling from foresters and deteriorating economic factors. This trend has since reversed, with prices trending gradually higher through the rest of the quarter. June ETS auction did not clear and unsold units from March and June will carry over to September.

### Agri-technology pipeline

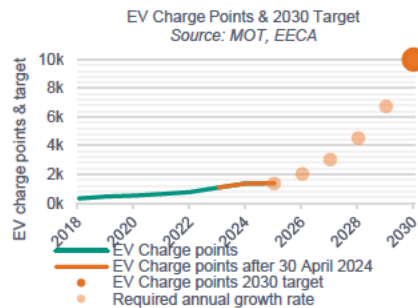
#### More technologies becoming available

Methane technology	Status
Vaccine	9(2)(b)(ii) expected availability from 2030, 9(2)(b)(ii) expected availability from 2028.
Inhibitor	Ruminant Biotech Long-Acting Rumen Bolus: Beef available late 2025, pilot manufacturing plant construction complete; Dairy available 2028.
Genetics	Rams - available now. Currently, 22 sheep breeders are measuring low emission rams; Dairy Genetics - available from 2027; Beef Bulls - available from 2030.
Effluent treatment	Ecopond - available from mid-2025. In 25/26 season Fonterra undertaking a 200 farm ecopond pilot and Synlait a 50 farm pilot (not publicly announced).
Feed	9(2)(b)(ii) -available from 2027; 9(2)(b)(ii) available from 2030.

- At the June 2025 National Fieldays, the Science for Farmers tent showcased technologies and the new on-farm emission calculator webtool.

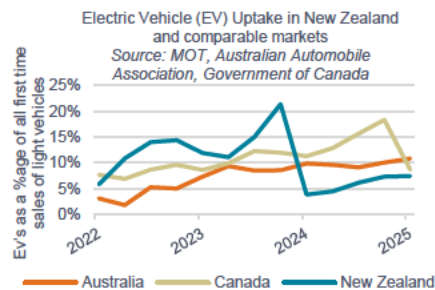
### Leading and supporting indicators - Transport

#### A step up in installation pace needed



- As at June 2025, there are 1,356 EV charge points across New Zealand, 16 more than in QE March Report, with 55 new and 39 older removals. Compared to the YE 2024, the number of charge points is down 2% due to Chargeret retiring older infrastructure.
- Installation rates must accelerate to meet the target.

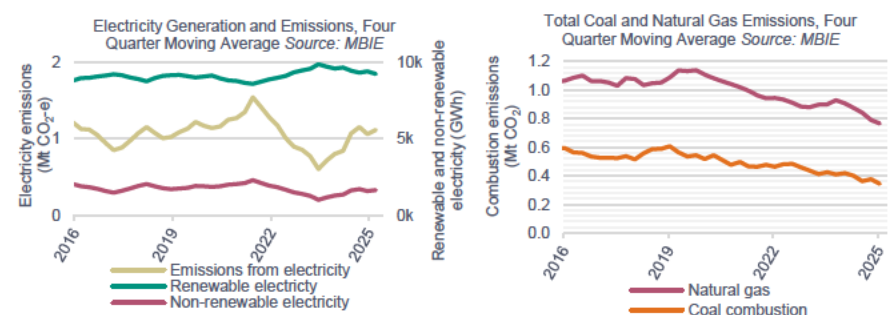
#### EV uptake in NZ recently flattening



- While New Zealand's EV uptake showed signs of recovery following a 2024 slowdown, it flattened again in the March 2025 quarter, reaching 7.4%
- In comparison, Australia reached 10.8% while Canada saw a drop to 8.7% in the same quarter following the pausing of an EV subsidy in Quebec.

### Leading and supporting indicators - Energy

#### Electricity emissions up again slightly, though renewable generation still high



- Electricity emissions rose slightly in the March 2025 quarter.
- Hydro inflows were well below average in this period, with Transpower noting January and February inflows were lowest on record for these months. Wind generation also declined in the March quarter.
- To compensate for this, coal and gas fired electricity generation increased 54.4% and 1% respectively.
- Despite poor hydro and wind, renewable share of generation was 83.2% this quarter, with new geothermal (Tauhara) and solar (Te Herenga o Te Rā) capacity helping to meet demand.
- Emissions from coal and natural gas combustion reflect broader energy use (not just electricity) and continue to decline overall.





COVERSHEET: Item 4				
To	Climate Change Chief Executives Board			
Meeting date	9 July 2025			
Agenda item name	Adaptive management update			
Item lead	Kirsty Flannagan			
Lead agency	CCIEB Unit			
Verbal update/noting item	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Supporting paper	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Reason for Board's consideration	In May, the Board agreed to the high-level approach for adaptive management for ERP2 to ensure that EB2 is met. This paper outlines the detailed design of the adaptive management process (TRACK, REVIEW, RESPOND), approved by CSOG as delegated to it by the Board in May. The CSOG paper and approved recommendations are provided for the Board's information and noting.			
Key focus areas	<p>The inaugural adaptive management advice will be provided to Cabinet in early October.</p> <p>Key areas in the paper for the Board to note include:</p> <ul style="list-style-type: none"> <li>the detailed design and processes required to carry out the adaptive management function, including the approach to risk management and assessing if a response may be required</li> <li>the truncated approach to be taken in 2025 should projections or risk assessment process indicate that a response is required.</li> </ul> <p>A critical dependency for meeting the timeframes for 2025 is the development of emissions projections. This requires agencies with emissions data working closely with MfE to ensure timelines are met.</p> <p>9(2)(h)</p>			
Recommendations	<p><b>Note</b> that this item does not require action from the Board.</p> <p><b>Note</b> the Minister of Climate Change is also receiving a briefing in parallel on the high-level approach to the adaptive management process, including the truncated approach for 2025.</p>			
Has the Board previously considered this item, if so, when?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Date	28 May 2025
	<p>On 28 May, the Board agreed to:</p> <ul style="list-style-type: none"> <li>the adaptive management decision tree and key stages of the adaptive management cycle;</li> <li>delegate to CSOG more detailed design of the adaptive management cycle, including the indicator framework, a risk assessment framework, and an approach to undertaking the "respond" phase.</li> </ul>			
Has this item been considered/endorsed by CSOG?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Date	18 June 2025
	<p>On 18 June, CSOG discussed the detailed design. It approved the TRACK and REVIEW design and sought some revision to RESPOND proposals. The RESPOND detail was finalised on 1 July, following full consultation with CSOG. Formal approval will be noted at the next CSOG meeting on 16 July.</p>			
Will this item be going to CPMG or Cabinet?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Date	13 October
	<p>The adaptive management advice generated through this process will be considered by Cabinet in October, in parallel with the Government's response to the Climate Change Commission's emissions reduction monitoring report.</p>			

# Memo: Adaptive management approach update

**To** Climate Change Chief Executives Board

**From** Kirsty Flannagan, Executive Director / Mel Rae, Principal Advisor, Climate IEB Unit

**Date** 9 July 2025

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## Purpose

1. This paper outlines the key design details and process for the adaptive management of the second emissions reduction plan (ERP2), approved by the Climate Senior Officials Group (CSOG) in June, to ensure New Zealand can meet the second emissions budget (EB2).

## Background

2. Chapter three of ERP2 provides for an adaptive management cycle to manage meeting EB2, which:
  - **tracks** policy delivery and leading indicators;
  - **reviews** projections and risks, and evaluates progress against the emissions budget;
  - **responds** when necessary to stay on track to meet EB2.
3. The Climate Change Chief Executives Board (the Board) agreed the high-level process and stages of the cycle in May. It also delegated to CSOG the more detailed design for implementing the adaptive management cycle.

## Summary of the adaptive management cycle design

4. The full CSOG paper (attached as Appendix A) outlines the detail of the proposals approved over June. Below is a summary of the detail for the three key phases and the approach for 2025 for the Board to note.

### TRACK phase – key data and information inputs

5. The TRACK phase is designed to run continuously throughout the emissions budget period. CSOG have approved the indicator framework which, along with the annual emissions projections and horizon scanning findings, forms the key inputs for the TRACK information base. The indicator framework consists of five categories of economy-wide and sectoral

indicators<sup>1</sup>, developed by the CCIEB Unit and ERP2 sector agencies.

6. The findings of the TRACK inputs feed into the REVIEW phase and inform other reporting requirements, including ERP2 action reporting and Target 9 reports.

### **REVIEW phase – the approach to assessing risks to meeting EB2**

7. ERP2 allows a proportionate response to be taken if risks to meeting EB2 arise. The findings of the REVIEW phase will inform the Board's and Ministers' assessment and judgement of whether to recommend to Cabinet that a response is required.<sup>2</sup> A primary input to this phase will be any risks identified from the annual emissions projections, governed by the Emissions Projections Governance Group (EPGG).
8. In addition, CSOG approved a risk taxonomy and consequence matrix, developed with the support of Deloitte, to inform the assessment of risk/s identified from indicators/horizon scanning. These tools have been designed to support a judgement-based assessment of risks, and to be agile to respond to different circumstances within the EB2 period. For example, an abatement impact of 0.5 Mt CO<sub>2</sub>-e in 2025 may be deemed to be minor but towards the end of the EB2 period it is likely to be rated higher.
9. Risks identified through the TRACK phase will be assessed in this phase for their severity and likelihood; of primary importance will be the risk to EB2 and abatement impact.

### **RESPOND phase – determining if a response is required, and what that might be**

10. 

9(2)(h)
11. A number of considerations will inform judgements on (a) whether a response is required to manage any risks to EB2, and (b) the nature of a proportionate response to be recommended. A set of three response scenarios has been approved by CSOG. These scenarios, informed by the REVIEW assessment, will form the basis of advice to Ministers:
  - i. On track, and no risk/s to EB2 that need managing; or
  - ii. On track, but some risk/s to EB2 do need managing; or
  - iii. Off track, and risk/s to EB2 do need managing.
12. Once a scenario for the current year is identified, this will inform a subsequent cross-agency assessment of what might constitute a proportionate response in a given year, based on the options set out in Chapter 3 of ERP2 (e.g. ensuring ETS settings are aligned

<sup>1</sup> The five categories are whole system indicators, ERP2 action indicators, outcome indicators, external factors and ERP2 baseline.

<sup>2</sup> This annual advice to Cabinet does not exclude the possibility that the Minister may need to be briefed on, and determine an appropriate response to, any risks to EB2 that arise throughout the year.



with EBs via the annual review, adjusting other existing policies, or a new policy or intervention).<sup>3</sup>

### **The 2025 process will be a truncated version of the full adaptive management cycle**

13. For 2025, CSOG agreed that the October advice to Cabinet seeks endorsement of the assessment of the response scenario, and to then, if required, seek further advice from officials on options for a proportionate response. This two-step process is only recommended for 2025, due to:
- the EB2/ERP2 period is yet to commence (and ERP2 was published less than a year ago), with time required this year to establish the function and process;
  - the absence of trend data from the TRACK phase;
  - the agreement by Cabinet to align its consideration of adaptive management advice with the existing statutory process for the Government response to the Climate Change Commission's (the Commission) annual emissions reduction monitoring report, and the tight timeframes associated with this response;
  - limited time and capacity (in light of the factors above) to work through possible options for a proportionate response, if required to respond to risks, ahead of the scheduled consideration for Cabinet in October.
14. Any work required to develop options for a proportionate response this year would then form the basis for the CCIEB Unit to coordinate 9(2)(f)(iv) [REDACTED].

### **Next steps**

15. A calendar of the adaptive management process for 2025, including the indicative timeframes for agency engagement, is provided in Appendix 6 to the attached CSOG paper.
16. The CCIEB Unit will provide a briefing to the Minister of Climate Change outlining the approach to adaptive management for 2025, informed by the May Board and June CSOG decisions. This includes key milestones and anticipated engagement points with portfolio Ministers ahead of advice to Cabinet in October.
17. A key input into the process is the Commission's annual emissions monitoring report, due to the Minister of Climate Change on 15 July. The CCIEB Unit will support cross-agency assessment of the Commission's annual emissions monitoring report to support the Minister to table the report in the House later in July, and to integrate the findings into the adaptive management assessment.
18. In August, the 2025 emissions projections will be finalised to support adaptive management

<sup>3</sup> Note that the role of banking or borrowing between emissions budgets is not included as an option to assess in the case that a response scenario is triggered. This is subject to a separate assessment and advice from the Commission at the end of prior emissions budget period, and subsequent decision taken by the Minister of Climate Change





assessment. The emissions projections are the key determinant for assessing if New Zealand is on track to meet EB2.

## Recommendations

19. It is recommended that the Board:
- a. **note** the June decisions of CSOG on the design of TRACK, REVIEW, RESPOND
  - b. **note** the truncated approach to be taken in 2025 only
  - c. **note** that the CCIEB Unit will continue to work with your agencies on the TRACK and REVIEW phases, and, if needed once emissions projections are finalised, on the RESPOND phase
  - d. **note** the CCIEB Unit will work with agencies on the initial support to the Minister of Climate Change to table the next annual emissions monitoring report from the Climate Change Commission, due to the Minister on 15 July, and will integrate that analysis into the broader adaptive management process
  - e. **note** the next engagement with the Board on adaptive management will be at its September meeting to consider the latest projections and findings from the analysis and to discuss and agree the formation of the advice to Cabinet for October.

## Signature

Kirsty Flannagan  
Executive Director, CCIEB Unit  
3 July 2025

## Attachments

Appendix A: Final CSOG June paper

# Memo: Adaptive management of New Zealand's second emissions reduction plan: key design details

**To** Climate Senior Officials Group

**From** Kirsty Flannagan, Executive Director, Climate IEB Unit/IEB Kaimahi

**Date** 1 July 2025

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## Purpose

1. This paper seeks agreement on the key design details and process for the adaptive management of the second emissions reduction plan (ERP2), to ensure New Zealand can meet the second emissions budget (EB2).
2. It builds on the advice to the Climate Change Chief Executives Board (the Board) in May and seeks decisions on the following elements of the adaptive management cycle:
  - TRACK: the indicator framework;
  - REVIEW: the approach to identifying and assessing risk;
  - RESPOND: the approach to be adopted if a response is required.

## Background

3. Chapter three of ERP2 provides for an adaptive management cycle, which:
  - **tracks** policy delivery and leading indicators;
  - **reviews** projections and risks, and evaluates progress against the emissions budget;
  - **responds** when necessary to stay on track to meet EB2.
4. The high-level process and stages of the cycle were agreed by the Board in May (attached as Appendix 1). The Board delegated detailed design of the adaptive management cycle to the Climate Senior Officials Group (CSOG).

## Track phase

5. The track phase is designed to run continuously throughout the emissions budget period and inform the annual adaptive management advice to Cabinet. Tracking will use the following key inputs: annual emissions projections; horizon scanning, and an indicator framework designed for this new process. This paper asks CSOG to approve the indicator framework part of the tracking phase.



## Indicator framework

6. The Climate Change Interdepartmental Executive Board Unit (CCIEB Unit) has worked with ERP2 sector agencies to develop an indicator framework. The framework consists of five categories of economy-wide and sectoral indicators (Appendix 2, Table 2.1),<sup>1</sup> and analytical questions and specific indicators (Appendix 2, Table 2.2).
7. The indicators have been designed to inform the analysis of key analytical questions and shape horizon scanning of the wider climate system for the annual adaptive management cycle. The indicators will also inform other reporting requirements, including ERP2 action reporting and Target 9 reports.
8. The analytical questions and the indicator data which underpins them will then be used to help answer the system-wide questions such as:
  - How are emissions trending and why?
  - What is the relationship between emissions and economic activity?
  - Are the policies set out in ERP2 performing as expected?

## Review phase

9. Emissions projections are produced annually in a cross-agency process governed by the Emissions Projections Governance Group (EPGG) and will inform the stage 1 assessment of whether New Zealand is on track to meet EB2. EPGG has provided a separate update to CSOG on the 2025 projections process (see Paper 4.6 - Preparation of 2025 greenhouse gas emission projections).
10. ERP2 provides for taking a proportionate response if risks to meeting EB2 arise. The review phase of the adaptive management process will inform whether the Board recommends that a response is required.<sup>2</sup> This will be based on an overall assessment of any risk/s identified in the stage 1 assessment of projections, and any additional risk/s identified through stage 2 (horizon scanning and the indicator framework, and the Climate Change Commission's (the Commission) emissions reduction monitoring (ERM) report) that are not already accounted for in projections.

## Risk approach

11. To support the assessment of risks identified through stage 2, the CCIEB Unit has worked with Deloitte to develop a risk approach for adaptive management, including a risk taxonomy and consequence matrix (attached as Appendix 3) and a likelihood matrix.
12. Risks will be categorized via the risk taxonomy to enable consistent reporting and analysis of risk, although some risks may fall into multiple categories. Each risk will then be assessed against the consequence matrix, with risk to EB2 and abatement impact of primary importance. Once assessed by the consequence matrix, the risk will be analysed to

<sup>1</sup> The five categories are whole system indicators, ERP2 action indicators, outcome indicators, external factors and ERP2 baseline.

<sup>2</sup> This annual advice to Cabinet does not exclude the possibility that the Minister may need to be briefed on, and determine an appropriate response to, any risks to EB2 that arise throughout the year

understand its likelihood and whether it has been accounted for elsewhere (i.e. in projections) or has a mitigation in place, to avoid 'double counting' or overstating any risks.

13. These tools have been designed to support a judgement-based assessment on risks and the appropriate response to these. They have also been designed to be agile to respond to different circumstances within the budget period e.g. we anticipate the assessment criteria in the consequence matrix and likelihood will change as the budget period progresses. For instance, an abatement impact of 0.5 Mt CO<sub>2</sub>-e in 2025 may be deemed to be minor but towards the end of the budget period it is likely to be rated higher. Risks will be reviewed annually and will be monitored by the CCIEB Unit on an ongoing basis. It is envisioned that governance layers and Ministers would be provided with the top risks to aid in their assessment of whether a response is required.

## Response phase

14. 

9(2)(h)
15. A number of considerations will inform judgements re (a) whether a response is required to manage any risks to EB2 and (b) the nature of a proportionate response to be recommended.

### (a) Whether a response is required to manage any risks to EB2

16. Such an assessment will necessarily be fact specific. Key factors to assess are outlined in Appendix 4, and include:
  - where the central estimate of projections is sitting relative to the EB2 limit, with consideration to be given to any upside or downside risks from scenario and/or sensitivity analysis, for example the uncertainty band of projections;
  - the nature of identified risks (in particular, their severity and permanence); and
  - where in the emissions budget cycle we are.
17. Three possible scenarios could arise from this assessment, and form the basis of advice to Ministers:
  - (i) On track, and no risk/s to EB2 that need managing;
  - (ii) On track, but some risk/s to EB2 that need managing; or
  - (iii) Off track, and risk/s to EB2 need managing.

Broadly speaking, scenarios (ii) and (iii) could well result in advice to Ministers that a response is recommended. But ultimately, it will be a question of judgement, depending on the risks that need managing.

**(b) The nature of a response to be recommended**

18. ERP2 notes that response options could include additional monitoring or policy interventions (e.g. ensuring ETS settings are aligned with EBs via the annual review, adjusting other existing policies, or a new policy).<sup>3</sup> In addition, proactive cooperation with the private sector on industry-led initiatives is another response option. What amounts to a proportionate response will be a question of judgement and will depend on the risk/s that are being responded to.
19. Appendix 4 notes initial considerations or guiding questions to be considered in the event a response is recommended. 9(2)(f)(iv) [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]
20. Appendix 5 outlines considerations against which policy intervention response options that 9(2)(f)(iv) [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

**Proposed approach in 2025**

21. A calendar of the adaptive management process for 2025, including the indicative timeframes for agency engagement, is provided in Appendix 6. The 2025 process will be a truncated version of the full adaptive management approach – in particular for any response advice and options. This is due to:
- the EB2/ERP2 period is yet to commence (and ERP2 was published less than a year ago), with time required to establish the function;
  - the absence of trend data from the TRACK phase;
  - the agreement by Cabinet to align its consideration of adaptive management advice with the existing s5ZK statutory process for the annual October Government response to the Commission's ERM report, and the tight timeframes associated with this response 9(2)(f)(iv) [REDACTED]  
[REDACTED] and
  - feedback from agencies and the Board throughout the development of the process that, in light of the above factors, any response options and advice would need to be worked through following the October Cabinet meeting.

<sup>3</sup> Note that the role of banking or borrowing between emissions budgets is not included as an option to assess in the case that a response scenario is triggered. This is subject to a separate assessment and advice from the Commission at the end of prior emissions budget period, and subsequent decision taken by the Minister of Climate Change

- ## Approach in future years

26. 9(2)(f)(iv) [REDACTED]

- 
- | Government          | Percentage |
|---------------------|------------|
| Current government  | 85%        |
| Previous government | 15%        |

- ## Recommendations

- Page 5 of 17

- a. **Agree** the TRACK indicator framework (set out in Appendix 2)

Yes / No

- b. **Agree** the REVIEW approach to risk assessment including the risk taxonomy and consequence matrix (set out in Appendix 3)

Yes / No

- c. **Agree** the approach to judging whether a RESPONSE is required and assessing any options to recommend as a proportionate response, as outlined in Appendix 4

Yes / No

- d. **Note** the potential considerations for assessing policy intervention response options, as outlined in Appendix 5

- e. **Confirm** the adjustments made for the 2025 process, in particular for developing any response advice, as outlined in paragraphs 21-24 above, i.e. if the assessment stages result in a judgement that risks to EB2 warrant recommending a response, 9(2)(f)(iv)

- f. **Note** the delivery timeline and milestones for the 2025 cycle, as set out in Appendix 6

- g. **Agree** that agencies should maintain awareness of high-level strategic opportunities and levers that can inform, when required, response advice from 2026 onwards

Yes / No

- h. 9(2)(f)(iv)

Yes / No

- i. **Agree** to delegate to the CCIEB Unit Executive Director further refinement to the design, delivery timeline and milestones for the 2025 cycle consistent with this

Yes / No

- j. **Note** that the CCIEB Unit will run a 'lessons learned' session with agencies following the 2025 process, to incorporate or recommend any process improvements and adjustments ahead of the 2026 process.

## Signatures

A handwritten signature in blue ink, appearing to read 'KF', followed by a long horizontal flourish.

Kirsty Flannagan  
Executive Director, CCIEB Unit

**26 June 2025**

## Attachments

Appendix 1: Four key stages of the adaptive management decision-making framework

Appendix 2: TRACK – Indicator framework

Appendix 3: REVIEW – Approach to assessing risk

Appendix 4: RESPOND – Considerations and scenarios to guide development of response advice

Appendix 5: Potential considerations for assessing policy intervention response options

Appendix 6: 2025 monthly timeline to Cabinet



## Appendix 1: Four key stages of the adaptive management decision-making framework

Stage 1: Are we on track to meet EB2?	Stage 2: Are there other risks to meeting EB2?	Stage 3: Do we need to act?	Stage 4: What should we do?
<b>Key questions</b> <b>Are we on track?</b> <ul style="list-style-type: none"> <li>Is the central estimate within the limit for EB2?</li> <li>Also to consider: any upside/downside risks including from scenario and/or sensitivity analysis, e.g. the uncertainty band</li> <li>What are the drivers of change/reasons underpinning uncertainty band?</li> </ul>	<b>Key questions</b> <b>Are there other risks to consider?</b> <ul style="list-style-type: none"> <li>Are there other risks to meeting EB2 that are not already reflected in projections?</li> <li>Are we getting any early insights into potential abatement opportunities/upside risks?</li> </ul>	<b>Key questions</b> <b>Do we need to act?</b> <ul style="list-style-type: none"> <li>Can risks be managed or is a response required?</li> <li>What is the nature of the risk/s? (including severity and permanence)</li> <li>Where in the EB cycle are we?</li> </ul>	<b>Key questions</b> <b>What should we do?</b> <ul style="list-style-type: none"> <li>What types of ERP2 Chapter 3 response options should be considered? Can increased monitoring manage risks or is a policy intervention response recommended?</li> <li>9(2)(f)(iv)</li> <li>Assess policy response options against considerations in Appendix 5</li> </ul>
<b>Key inputs</b> Analysis of projections, including changes in baseline assumptions, methodology, key drivers.	<b>Key inputs</b> TRACK findings (indicators and horizon scanning), and CCC ERM report.	<b>Key inputs</b> Risk assessment analysis	<b>Key inputs</b> Stage 1-3 judgements List of strategic opportunities/levers (*2026 onwards)
<b>Who?</b> <b>EPGG</b> to sign out projections and provide assessment of whether we are on track to meet EB2. <b>MCC</b> briefed on this assessment by <b>MfE/CCIEB Unit</b> . <b>CSOG</b> and the <b>Board</b> endorse projections and assessment.  * These projections will reflect ETS settings decisions, and any material changes subsequent to those.	<b>Who?</b> <b>The CCIEB Unit</b> will bring all inputs above together and prepare advice to <b>CSOG</b> and the <b>Board</b> .	<b>Who?</b> <b>The CCIEB Unit</b> will assess, with <b>agencies</b> , if a response is needed in light of risks raised from stages 1 - 2. <b>CSOG</b> and <b>Board</b> decide whether to advise Cabinet to respond/move to stage 4. If Response required, <b>MCC</b> to inform <b>portfolio Ministers</b> in anticipation of work needed (*2026 onwards).	<b>Who?</b> <b>MCC</b> to confirm with <b>ERP2 sector Ministers</b> whether a response is required 9(2)(f)(iv) <b>CCIEB Unit</b> work with agencies to update list of policy intervention options <b>Agencies</b> work with <b>portfolio Ministers</b> before including options as proposed recommendations <b>CSOG</b> makes decisions on proposed recommendations for response in light of risks and portfolio Minister support. <b>Board</b> agrees recommendations to Cabinet.

## Appendix 2: TRACK – Indicator framework

### 2.1 Indicator type

Type	Explanation
Whole system indicators	Metrics that reflect the health and performance of the system and are used to track progress, identify issues, and inform decisions.
ERP2 action indicators	Metrics that reflect the progress of implementing the policies and actions set out in ERP2.
Outcome indicators	Metrics that indicate progress in areas where the Government has some influence, but where the influence is indirect or limited. They have an important link to emissions levels and pathways.
External factors	Metrics with an important link to emissions levels where the Government has no influence or control, e.g. natural phenomena/events, international factors.
ERP2 baseline	Indicators that serve as a comparison point to assess progress, tracking changes and evaluation of effectiveness of actions and outcomes. <i><b>Note:</b> These have been pulled from the technical annex of ERP2 so have not been included below.</i>

## 2.2 Indicators framework

This table outlines the indicator framework, linking each sector's emission profile to key analytical questions and associated indicators. The questions act as prompts, with indicators providing supporting evidence. In addition, indicators for each action set out in ERP2 will be monitored as qualitative information.

Where possible, baseline indicators and assumptions as outlined in the ERP2 technical annex will also be monitored to assess whether sectors are tracking as expected and to identify early signals of change. Note this does not include indicators on the ETS, which will be monitored through the annual ETS settings process.

Sector	ETS Sector	Emissions profile	Analytical questions	Indicator	What it tells us
New Zealand wide		100%	1. How are emissions trending and why? 2. What is the relationship between emissions and economic activity? 3. Are the policies set out in ERP2 performing as expected?	Quarterly greenhouse gas emissions by industry (Outcome)	The greenhouse gas emission breakdown by sector, which can help outline if the system is decarbonizing (Q1). It can be split into ETS and non-ETS sector proxies. However, this is limited in that it does not clearly split all ERP2 sectors directly.
				Contribution of sectors to GDP and CO2e emissions (Outcome)	Shows each sector's economic contribution relative to its emissions profile (Q2).
				Industry greenhouse gas emissions intensity (Outcome)	Shows how many emissions are produced per unit of economic output. It helps us understand if the economy is becoming more emissions efficient (Q2). Helps interpret emissions over time (Q1) and (Q3).
Agriculture	Non-ETS sector	Responsible for approximately 53% of emissions	1. Are emissions from agriculture in line with ERP2 expectations and what is driving any changes? 2. Are technological mitigation options being adopted on farms? 3. Are we improving emissions efficiency without reducing production?	Top 5 Ag tech uptake (Outcome)	Products registered through AVCM, top 5 products, market penetration, investment \$, pilot programmes, commercial viability. Can help assess if technological mitigation options are being adopted at scale, which supports emissions reductions and efficiency improvements (Q2, Q3).
				Emissions intensity (dairy, sheep, beef) (Outcome)	Shows how much emissions are produced for each unit of economic output (Q1). A declining trend signals improved efficiency (Q3).
Building and Construction	ETS sector	Responsible for approximately 12% of emissions (a subset of energy sector emissions)	1. To what extent is the building sector reducing its reliance on fossil fuels?	Total number of active ICP connections providing reticulated fossil gas to buildings	Shows the total number of active ICP connections providing reticulated fossil gas to buildings for uses such as cooking, and space heating (Q1).
				Operational emissions from fossil fuels	Shows the emissions from the energy used to operate buildings from fossil fuel sources such as fossil gas, LPG, and coal.
				Other operational emissions	Shows the emissions from the energy used to operate buildings from electricity, water and HVAC.
Energy	ETS sector	Responsible for approximately 23% of emissions	1. Is the pipeline of renewables supporting achievement of the goal of doubling renewables by 2050? 2. Is the security and affordability of electricity enabling the economy's electrification requirements?	Consenting pipeline status and new generation build (Outcome and Action)	Shows how much new electricity generation capacity is planned, approved or being built. Can help assess progress towards doubling renewables by 2050 (Q1).
				Renewable share of electricity generation (%) (Outcome)	Shows how much of our electricity comes from renewable sources. A higher share indicates progress toward doubling renewables by 2050 (Q1) and shows if the proportion of renewable electricity generation is increasing (Q2)
				Electricity generation emissions (Outcome)	How much emissions are being produced from electricity generation. Falling emissions show the emissions impact of a higher proportion of electricity coming from renewable sources (Q2).
				Total primary fuel combustion emissions (Outcome)	Tracks emissions from fossil fuels. Declining emissions suggest reduced reliance on fossil fuels (Q1).
				Electricity demand (Outcome)	Shows how much electricity is being used. Demand growth suggests security and affordability of electricity are enabling electrification (Q2).
				Gas supply (External factor)	Gas supply affects the reliability of electricity generation during peaks or dry years. Gas supply risk or uncertainty may impact the security and affordability of electricity / and wider electrification (Q2). Declining gas supply also impacts gas use by industry so may indicate declining emissions from industry.

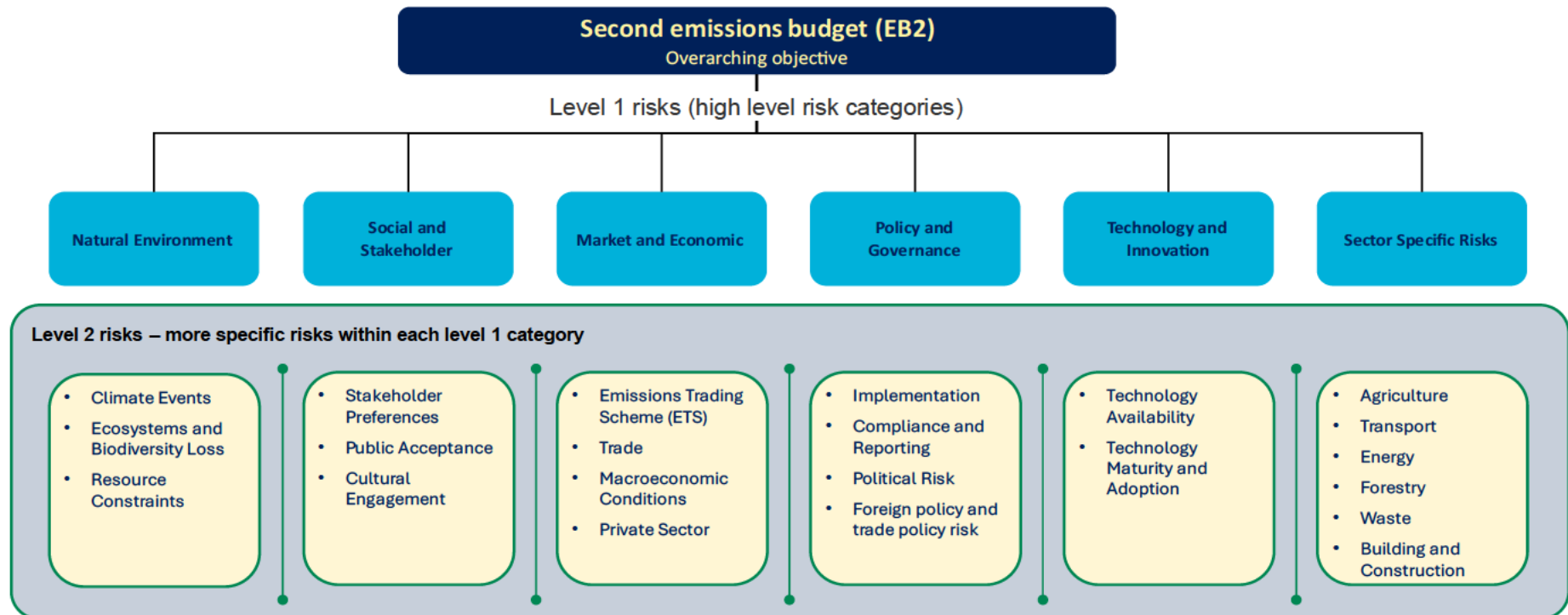


Sector	ETS Sector	Emissions profile	Analytical questions	Indicator	What it tells us
Forestry and non-forest removals	ETS sector	Responsible for removing approximately 7% of emissions	<ol style="list-style-type: none"> <li>Are afforestation and deforestation rates occurring in line with ERP2 expectations?</li> <li>How many new trees have been planted on Crown land?</li> <li>What proportion are native and what proportion are exotic?</li> </ol>	Native and exotic planting rates (Outcome)	Shows how much forest is being planted and whether it's native or exotic (Q1, Q3). Higher planting rates indicate potential for increased sequestration in the future. Exotics sequester carbon faster, while natives grow more slowly but offer more permanent storage and biodiversity co-benefits.
				Afforestation and deforestation rates (Outcome)	Shows the net balance between afforestation and deforestation (Q1). If the net balance is positive, it indicates increasing carbon sequestration. If it's negative, it suggests that emissions from deforestation may be outweighing removals from new planting.
				Afforestation on Crown land planting (Outcome)	Shows how much forest is being planted under the AOCL program.
				ETS registrations (Outcome)	Shows how land-use patterns may be shifting in response to policy restrictions, such as limits to whole farm conversions to NZ ETS forestry.
Transport	ETS sector	Responsible for approximately 19% of emissions	<ol style="list-style-type: none"> <li>How are we progressing towards the 10,000 EV chargers by 2030 target?</li> <li>Is EV uptake and EV VKT occurring at the pace assumed in ERP2?</li> <li>How does NZ EV uptake compare internationally?</li> <li>Are all parts of the transport system making progress toward decarbonisation?</li> </ol>	EVs as a percentage of newly registered vehicles (light and heavy) (Outcome)	Shows the rate of EV uptake in the fleet. A higher percentage indicates that EVs are replacing fossil fuel vehicles more rapidly, supporting faster emissions reductions from the new vehicle fleet (Q2, Q4).
				EVs as a percentage of total vehicle kilometers travelled (VKT) (light, heavy & buses) (Outcome)	This shows how much travel is done by low-emissions vehicles (Q2). A higher percentage reflects emissions reductions through EV use (Q4).
				Average CO2e of new fleet vehicles (light & heavy) (Outcome)	Shows how much CO2e is being emitted by new cars in the fleet. The lower the value, the more efficient the new cars entering the fleet are. Suggests decarbonization of the fleet (Q4).
				Fossil fuel use in domestic transport (Outcome)	Shows how much petrol and diesel is being used in the transport sector. Declining fuel use suggests emissions reductions across the system (Q4).
				EV charge point installations (Action)	Shows how many EV charge points are being installed (Q1) and links to reducing range anxiety.
				EV uptake – international comparison (External)	Shows how well other countries are decarbonizing their fleet. Can be used as a benchmark for domestic progress (Q3).
				Public transport passenger – km travelled (Outcome)	Shows how much travel is being done by passengers on public transport (Q4).
Waste	ETS sector	Responsible for approximately 4% of emissions	<ol style="list-style-type: none"> <li>Are emissions associated with organic waste declining in line with ERP2 expectations?</li> <li>How many workers in the refrigeration, heating, and air conditioning sectors are trained to a level that meets RPSS requirements?</li> <li>What investment (\$) in diversion of organic waste is being delivered through the waste minimisation fund and what impact is it expected to have on emissions?</li> <li>What trends are we seeing in the coverage and efficiency of landfill gas capture?</li> </ol>	Tonnage of waste sent to class 1 landfills (Outcome)	Shows how much waste is being disposed of in landfills. Higher landfill tonnage leads to higher emissions (Q1).
				Waste minimisation fund - forecasted landfill emissions reduction (Action)	Investment in waste projects through this fund demonstrates steps towards reducing waste related emissions. Shows amount invested (\$), forecast organic tonnage diversion and associated emissions reduction (Q3).
				Tonnes of imports of F-gas (Outcome)	Shows how much high GWP gases are entering the country, indicating the potential for future emissions (Q2).
				Training uptake levels (Outcome)	Shows how effective the RPSS has been in achieving a key outcome, reduction in leaks to atmosphere (emissions) through improved training and promotion of best handling practices.

## Appendix 3: REVIEW – Approach to assessing risk

### 3.1 Risk management – risk taxonomy

Outlined below is a high-level risk taxonomy to understand and categorise the risks that could impact New Zealand's ability to meet EB2.



### 3.2 Risk management – risk consequence matrix 3

Outlined below is an example consequence matrix to evaluate the impact of risks. Impact on EB2 and abatement are of primary importance, but a broad span of risk dimensions are deliberately included to enable a degree of judgement regarding any response that may be required. The details of each dimension will be updated each year to reflect the timing within the budget period or any adjustments to government priorities.

Dimensions	Criteria	1. Insignificant	2. Minor	3. Moderate	4. Major	5. Critical
<b>Target emissions trajectory</b> (Delay to New Zealand achieving emissions budgets)	<ul style="list-style-type: none"> <li>•Primary concern: Impact on ability to achieve EB2</li> <li>•Secondary concern: ability to meet EB3</li> </ul>					
<b>Impacted abatement</b> (Size of national emissions impacted)	<ul style="list-style-type: none"> <li>•[x] Mt CO<sub>2</sub>-e of target emissions per year</li> </ul>					
<b>Recovery complexity</b> (Time and cost to recover from risk event)	<ul style="list-style-type: none"> <li>•Assessed effort required to recover from risk event</li> <li>•Timeframe to recover from risk event</li> </ul>					
<b>Economic impact</b> (Economic outcome of risk event)	<ul style="list-style-type: none"> <li>•Assessed economic impact or disruption</li> <li>•As % GDP</li> </ul>					
<b>Foreign policy and diplomatic relationships</b> (Impact on New Zealand's domestic and international relationships)	<ul style="list-style-type: none"> <li>•Impact to sustainability credentials, trade and foreign investment</li> </ul>					
<b>Sector and infrastructure dependencies</b> (Extent to which key sectors and infrastructure)	<ul style="list-style-type: none"> <li>•Dependencies to sector or infrastructure and the assessed criticality</li> </ul>					



are affected)						
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## Appendix 4: RESPOND – Considerations and scenarios to guide development of advice

Initial risk identification	Risk assessment considerations	Scenario	Considerations for any recommended response options
<b>Are we on track?</b> Key criteria = central estimate of projections (from Stage 1)  <b>Are there other risks that also need considered?</b> Any upside/downside risks including from: - Scenario and/or sensitivity analysis, e.g. uncertainty band (Stage 1) - Other risks identified from indicators/horizon scanning/CCC ERM Report that are not already reflected in projections (Stage 2)	Are the risks - short-term/'blips' that can be explained or support a judgement that can remain within EB2 limit; or - having a sustained impact on emissions/ New Zealand's ability to meet EB2	1/ on track / no risks needing to be managed	Scenario 1: Advise Minister and Cabinet assessment of on track for EB2 and no need to respond. Continue annual monitoring and progressing ERP2 policies.
		2/ on track and risks may need managing	Scenarios 2 + 3: - What is the degree to which risk is likely to materialise and the impact if it does? - What is a proportionate response to this risk? Is increased monitoring enough to manage any risks or is a policy intervention required? What type of policy intervention is best able to manage the risk?
		3/ off track and risks need managing	- 9(2)(f)(iv) - what is the capacity of the ETS or non-ETS sectors to do more? - nature of options to be considered, eg market driven, pricing-based, regulatory, subsidy - Considerations to weigh policy response options against (per Appendix 5)

### Description of potential types of adaptive management response options, including as outlined in ERP2 Chapter 3

Response option	Description
Additional monitoring	Bespoke monitoring to be agreed by the relevant sector team and the CCIEB Unit. This would be beyond BAU monitoring, such as Target 9, and may pay attention to particular areas.
Policy intervention options	
<ul style="list-style-type: none"> <li>Adjust ETS settings</li> </ul>	<p>Use of the next annual ETS settings review process to ensure ETS settings are aligned with emissions budgets (noting limitations of ETS settings adjustments for short-run interventions, in light of which years can be influenced by ETS settings decisions relative to EB2).</p> <p>9(2)(f)(iv)</p>
<ul style="list-style-type: none"> <li>Adjust existing policy / intervention</li> </ul>	Adjusting existing policies e.g. by upscaling, escalating or adding in complementary policies. This could include actions already underway in private sector.
<ul style="list-style-type: none"> <li>New policy / intervention</li> </ul>	Introducing new policies, with a specific focus first on the strategic opportunities identified in developing ERP2, such as decarbonisation by industry, ag tech mitigation uptake etc.

## Appendix 5: Potential considerations for assessing policy intervention response options

If the response phase determines that further policy intervention should be recommended (e.g. adjustments to existing or new policies), the considerations below could be used to assess across sectors possible policy intervention response options. These are informed by the Contingency Framework developed to assess additional policy options for EB2 through the ERP2 process.

- Estimated abatement that is achievable (EB2, EB3 and beyond)
- Effectiveness, including ability to operationalise/implement and anticipated timeframes to realise abatement
- Efficiency and estimated costs (Government and households/business)
- Type of intervention (eg market-driven, pricing-based, regulation, subsidy)
- What sectors are covered (ETS or non-ETS)
- Alignment with current climate priorities/direction, and other Government priorities (eg contribution to economic growth priorities)
- Certainty of abatement (including policy durability/cross government support)
- Equity and distributional impacts from any response

Appendix 6: 9(2)(f)(iv)

9(2)(f)(iv)

9(2)(f)(iv)

COVERSHEET: Item 5				
To	Climate Change Chief Executives Board			
Meeting date	9 July 2025			
Agenda item name	Oral update: National Adaptation Framework Pillar 1			
Item lead	Sam Buckle			
Lead agency	MfE			
Verbal update	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Supporting paper	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Reason for Board's consideration	To provide an oral update the Climate Change Chief Executives Board on progress of the National Adaptation Framework and a written progress update on work within that to design a multi-agency work programme of natural hazard data system improvements.			
Key focus areas	Update on agency roles and responsibilities across the six workstreams of the multi-agency work programme.			
Recommendations	Note the contents of this update			
Has the Board previously considered this item, if so, when?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Date	28 May 2025
	The Board endorsed Adaptation Deputy Chief Executives decision to proceed with designing a multi-agency work programme of natural hazard data system improvements, led by the Ministry for the Environment.			
Has this item been considered/endorsed by Climate DCEs?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Date	25 June 2025
	The written update confirms the discussion at Adaptation DCEs on 25 June.			
Comments	The written progress report will be circulated separately.			



# Memo: Natural hazard data system improvements cross-agency work programme

**To** Climate Change Chief Executives Board

**From** Adaptation Deputy Chief Executives

**Date** 9 July 2025

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## Purpose

1. Note the progress made by Adaptation Deputy Chief Executives (Adaptation DCE's) on the design a multi-agency work programme of natural hazard data system improvements.

## Background

2. On 28 May 2025, the Board endorsed Adaptation DCEs) decision to proceed with designing a multi-agency work programme of natural hazard data system improvements, led by the Ministry for the Environment.
3. This developed from work underway on Pillar 1 (Risk and Response Information) of the National Adaptation Framework.
4. Engagement with insurers, banks, local authorities and across government has highlighted broad support on the need for this work to advance a fit for purpose natural hazard data system that is responsive to user needs.
5. Data system improvements are not just a technical fix, they are a strategic enabler of economic resilience and growth and will lead to benefits across a range of sectors and portfolios.

## Designing a multi-agency work programme of natural hazard data system improvements

6. The following roles and responsibilities have been agreed for the six workstreams comprising the work programme. MfE are the overall programme lead:

Workstreams	Lead	Support
1: Datasets and critical services	Ministry for the Environment	Natural Hazards Commission Department of Internal Affairs Ministry of Business, Innovation and Employment Land Information New Zealand.
2: Standardisation	Ministry for the Environment	Natural Hazards Commission National Emergency Management Agency Land Information New Zealand.



Workstreams	Lead	Support
3: Data system improvements	Ministry for the Environment	National Emergency Management Agency Department of Internal Affairs Land Information New Zealand.
4: Making risk information available to the public	Ministry for the Environment Natural Hazards Commission	National Emergency Management Agency Department of Internal Affairs Department of Prime Minister and Cabinet.
5: Funding	Ministry for the Environment Ministry of Business, Innovation, and Employment	Department of Internal Affairs
6: Governance	Ministry for the Environment	Department of Internal Affairs Department of Prime Minister and Cabinet.

7. In addition:

- a. LINZ will take responsibility for any datasets and critical services that relate to property and geospatial data
- b. DIA will take a stronger supporting role on governance, particularly as it relates to local government.

8. Progress has also been made on immediate-term actions including:

- a. Initiation of standards for a flood hazard modelling standard covering fluvial, pluvial and coastal flooding and an additional standard for risk analysis
- b. An update of High Intensity Rainfall Data (HIRDs) with approximately 8 years of rainfall data from 2016 onwards. The funding also covers testing potential model improvements.

9. 9(2)(f)(iv)

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

## Next steps

10. Recommendations on the multi-agency work programme will be provided to the Board on 2 September 2025.

COVERSHEET: Item 6				
To	Climate Change Chief Executives Board			
Meeting date	9 July 2025			
Agenda item name	Oral update: KPMG review of Emissions Projections System			
Item lead	James Palmer			
Lead agency	MfE			
Verbal update	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Supporting paper	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Reason for Board's consideration	The purpose of this item is for the Board to note the progress made on the external review of the emissions projections system			
Key points	<ul style="list-style-type: none"> <li>MfE has been progressing the review of the emissions projections data system with KPMG as the contracted supplier.</li> <li>9(2)(g)(i) [REDACTED]</li> </ul>			



## COVERSHEET: Item 7

To	Climate Change Chief Executives Board
Meeting date	9 July 2025
Agenda item name	Meeting administration
Item lead	Kirsty Flannagan (CCIEB Unit)
Recommendations	<ul style="list-style-type: none"> <li>• <b>Approve</b> the minutes of the previous meeting held on 28 May 2025</li> <li>• <b>Note</b> the register of open actions</li> <li>• <b>Note</b> the indicative forward agenda</li> </ul>
Comments	The Board's next meeting is scheduled for Wednesday 2 September 2025.



## Climate Change Chief Executives Board

### MEETING MINUTES

Wednesday 28 May 2025, 9:30-11:00

Online via MS Teams

<b>Attendees</b>	James Palmer (Chair, MfE); Carolyn Tremain (MBIE); Dave Gawn (NEMA); Iain Rennie (TSY); Penny Nelson (DoC); Ray Smith (MPI); Ruth Fairhall (MoT); Aaron Martin (CL)
<b>Delegates</b>	Maree Roberts (DIA); Victoria Hallum (MFAT)
<b>Invited</b>	<b>Item 1:</b> Ben King, Chief Executive Department of the Prime Minister and Cabinet (DPMC)
<b>In support</b>	Kirsty Flannagan, Jane White, Amy Tisdall, Llinos Williams, Rachael Church (CCIEB Unit); Sam Buckle (MfE); Lisa Daniell, Sean Bolton (DPMC)
<b>Apologies</b>	Bede Corry (MFAT); Paul James (DIA)

### Chair's opening comments / karakia tīmatanga

#	Item	Actions
1	<p><b>Ben King, Chief Executive DPMC: The National Hazards Board and the CCIEB</b></p> <p>The Chair welcomed meeting attendees and noted the apologies received and delegates attending.</p> <p>Ben King (Chief Executive, DPMC) and Sean Bolton (Deputy Chief Executive Risk &amp; Systems Governance Group, DPMC) provided an overview of the review of the Natural Hazards Board (NHB) 9(2)(f)(iv)</p> <p>Cabinet endorsed the National Risk and Resilience Framework last year and the Prime Minister has encouraged DPMC to use its leadership and coordination role to help the system better prepare to deal with the risks identified.</p> <p>9(2)(f)(iv)</p> <p>9(2)(f)(iv)</p> <p>Lead: CCIEB Unit (with agencies)</p> <p><b>The Board:</b></p> <p>1.1 <b>noted</b> the update provided on the role of the National Hazards Board.</p>	
<b>Board-only time</b>		
2	Context sharing updates	

	Roundtable discussion and context updates were provided. No minutes were taken for this item.	
<b>Meeting business</b>		
<b>3</b>	<p><b>Implementing the Board's adaptive management function for New Zealand's second emissions reduction plan</b>  <b>Lead:</b> Kirsty Flannagan / Llinos Williams (CCIEB Unit)</p> <p>The first adaptive management report will be provided to Cabinet in early October. This will be linked to the Government's response to the Climate Change Commission's (CCC) annual emissions reduction monitoring report.</p> <p>It is proposed that detailed design of the adaptive management cycle be delegated to the Climate Senior Officials Group (CSOG), with report backs provided to the Board. The IEB Unit will work with agencies to monitor progress against ERP2. If agreed, ministerial engagement would be undertaken through bilateral meetings rather than via CPMG.</p> <p><b>Discussion points:</b></p> <ul style="list-style-type: none"> <li>• 9(2)(f)(iv)</li> <li>• The adaptive management framework should include guidance on where to look first if progress is off track – focusing on big areas of emissions in the economy that need to be tracked and keeping the reporting focus light.</li> <li>• Target 9 reporting could be used to facilitate ministerial discussions on whether we are on track to meet emissions budgets.</li> <li>• Climate change is not just achieved through policy interventions and choices; private sector measures are also a key factor – language should reflect this.</li> </ul> <p>The Chair noted the Board's agreement-in-principle to the recommendations outlined in the paper, subject to the feedback provided being incorporated into the revised paper for the CSOG meeting on 16 June.</p> <p><b>The Board:</b></p> <p>3.1 <b>agreed</b> to the adaptive management decision tree and key stages of the adaptive management cycle</p> <p>3.2 <b>agreed</b> to delegate to CSOG more detailed design of the adaptive management cycle</p> <p>3.3 9(2)(f)(iv)</p> <p>3.4 <b>agreed</b> to recommend the Minister of Climate Change has bilaterals with key Ministers rather than a CPMG meeting if there is a need to explore further mitigation options to remain on track for EB2</p> <p>3.5 <b>noted</b> work on adaptation monitoring and indicators will continue to develop through Adaptation DCEs and CSOG, with an update to the Board due later this year</p> <p>3.6 <b>noted</b> the Board will be provided with the outcomes of delegated decisions taken by CSOG at its July meeting.</p>	<p>CCIEB Unit to check whether there is any Cabinet reporting on Government Targets, as a way of ensuring Ministers are informed on whether progress is on or off track.</p> <p><b>Lead: CCIEB Unit</b></p> <p>Paper to be updated to incorporate the Board's feedback then provided back to the CSOG, who will report back to the Board on outcomes of delegated decisions in July.</p> <p><b>Lead: CCIEB Unit (with agencies)</b></p>
<b>4</b>	<p><b>Oral update: National Adaptation Framework Pillar 1 progress</b>  <b>Lead:</b> Kirsty Flannagan (CCIEB) on behalf of Nadeine Dommissie (MfE)</p> <p>Adaptation DCEs met this week to discuss the direction and key features of a fit-for-purpose data system. DCEs agreed that a coordinated cross-government approach is needed to deliver the programme of improvements to the natural hazard data system. This will involve leveraging off existing government programmes and working closely with the private sector. The multi-agency approach will be led by MfE.</p>	

	<p><b>Discussion points:</b></p> <ul style="list-style-type: none"> <li>9(2)(g)(i) [redacted]</li> <li>[redacted]</li> <li>[redacted]</li> <li>[redacted]</li> <li>[redacted]</li> <li>[redacted]</li> <li>[redacted]</li> <li>[redacted]</li> <li>[redacted]</li> </ul> <p><b>The Board:</b></p> <p>4.1 <b>noted</b> the material provided to Adaptation DCEs for their 27 May discussion on the overall direction and key features of a fit for purpose data system, including roles of agencies</p> <p>4.2 <b>agreed</b> to endorse the decisions taken by Adaptation DCEs at their meeting on 27 May.</p>	
<b>Other business</b>		
5	<p>9(2)(f)(iv) [redacted] <b>and resourcing request</b></p> <p><b>Lead:</b> Sam Buckle (MfE)</p> <p>9(2)(f)(iv) [redacted]</p> <p>[redacted]</p> <p>[redacted]</p> <p>[redacted]</p> <p>MfE is seeking recommendations for a Chief Advisor-level project lead with strong technical, policy and delivery capability. The project lead will be seconded to MfE. Recommendations can be provided to Sam Buckle or Mark Vink.</p> <p><b>The Board:</b></p> <p>5.1 9(2)(f)(iv) [redacted]</p> <p>[redacted]</p> <p>5.2 <b>noted</b> that recommendations are being sought for a project lead at Chief Advisor level, to lead the 9(2)(f)(iv) [redacted] project on secondment to MfE.</p>	
6	<p><b>Board's terms of reference and operating procedures</b></p> <p><b>Lead:</b> Kirsty Flannagan (CCIEB Unit)</p> <p>9(2)(f)(iv) [redacted]</p> <p>[redacted]</p> <p>The operating procedures outline the Board's policy responsibilities and standard processes, and will be published on the Board's website to replace the outdated version.</p> <p>The Chair noted that a Deputy Chair is still to be confirmed and invited any nominations from Board members.</p> <p>9(2)(f)(iv) [redacted]</p> <p>[redacted]</p> <p><b>The Board:</b></p>	<p>9(2)(f)(iv) [redacted]</p> <p>[redacted]</p> <p>[redacted]</p> <p>[redacted]</p> <p>Updated operating procedures to be uploaded to the Board's website</p> <p><b>Lead: CCIEB Unit / MfE</b></p>



	<p>6.1 9(2)(f)(iv) [REDACTED]</p> <p>6.2 <b>approved</b> the Board's operating procedures being published on the Board's website as required under the Public Service Act 2020.</p>	
7	<p><b>Meeting administration</b>  <b>Lead:</b> Kirsty Flannagan (CCIEB Unit)</p> <p><b>The Board:</b>          7.1 <b>approved</b> the minutes of the previous meeting, held on 26 March 2025          7.2 <b>noted</b> the indicative forward agenda          7.3 <b>noted</b> the actions register.</p>	
Chair's closing comments / karakia whakamutunga		
<p>The Chair thanked Board members for their input. The next Board meeting is scheduled for 9 July and any contributions to the agenda are welcome.</p> <p>The meeting closed at 11:00am.</p>		

## Climate Change Chief Executives Board - actions register

Paper 7.2

Action #	Meeting Date	Discussion item	Minutes	Action	Responsible	Status
25-4	29/01/2025	5 - Budget 2025 CIPA update	The Board <b>noted</b> the CCIEB Unit will report back to the Board 9(2)(f)(iv)	CCIEB Unit to report back to the Board 9(2)(f)(iv)	CCIEB Unit	Proposing to add this work to longer term work programme given current resourcing and priorities
25-16	26/03/2025	6 - ERP1 progress report	The Board <b>noted</b> that a Board discussion on how to support foundational actions across emissions budget periods will be added to the forward agenda	Discussion to be added to Board's forward agenda regarding how to support foundational actions across emissions budget periods	CCIEB Unit	Proposing to delegate this to CSOG in the first instance
25-18	28/05/2025	3 - Implementing the Board's adaptive management function	The Board noted that Target 9 reporting could be used to facilitate ministerial discussions on whether we are on track to meet emissions budgets. Need to confirm whether there is Cabinet reporting on Government Targets	CCIEB Unit to check whether there is any Cabinet reporting on Government Targets, as a way of ensuring Ministers are informed on whether progress is on or off track	CCIEB Unit	9(2)(f)(iv)
25-20	28/05/2025	6 - Board's refreshed terms of reference and operating procedures	The Board agreed to review the terms of reference 9(2)(f)(iv)	Terms of reference to be reviewed 9(2)(f)(iv)	CCIEB Unit	Open

## July to December 2025

Month	CSOG	CE Board
July	<b>Wed 16 July</b> <ul style="list-style-type: none"> <li>• CCC presentation of CCC ERM report</li> <li>• Adaptive management key findings/response to CCC ERM report</li> <li>• ETS settings update (MfE)</li> <li>• 6(a) [REDACTED]</li> <li>• 9(2)(f)(iv) [REDACTED]</li> <li>• EPGG/Modelling Directors monthly update (MfE)</li> </ul>	<b>Wed 9 July</b> <ul style="list-style-type: none"> <li>• Target 9 report</li> <li>• 9(2)(f)(iv) [REDACTED]</li> <li>• Noting item: Adaptive management update from CSOG discussion</li> <li>• Oral updates: <ul style="list-style-type: none"> <li>- KPMG review of ENZ model</li> <li>- NAF pillar 1 (MfE)</li> </ul> </li> </ul>
August	<b>Wed 20 August</b> <ul style="list-style-type: none"> <li>• Adaptive management key findings/framework for Cabinet paper and CCC ERM response</li> <li>• 9(2)(f)(iv) [REDACTED]</li> <li>• Emissions budget 4</li> <li>• 9(2)(f)(iv) [REDACTED]</li> <li>• 9(2)(f)(iv) [REDACTED]</li> <li>• EPGG/Modelling Directors monthly update</li> </ul>	
September	<b>Wed 17 September</b> <ul style="list-style-type: none"> <li>• Adaptive management verbal update (agency feedback / ministerial consultation)</li> <li>• EPGG/Modelling Directors monthly update</li> </ul>	<b>Tue 2 September</b> <ul style="list-style-type: none"> <li>• Target 9 update</li> <li>• Adaptive management/ERM response (shape advice and key messages for Cabinet package)</li> <li>• Adaptation indicators update (CCIEB Unit/MfE)</li> <li>• Adaptation data governance/ delivery of work programme</li> <li>• Oral update: COP31</li> </ul>
October	<b>Wed 15 October</b> <ul style="list-style-type: none"> <li>• Target 9 sign out on behalf of Board</li> <li>• Adaptive management Cabinet update and next steps</li> <li>• Response to CCC advice on EB4</li> <li>• EPGG/Modelling Directors monthly update</li> </ul>	
November	<b>Wed 19 November</b> <ul style="list-style-type: none"> <li>• Adaptive management update (tbc)</li> <li>• Stocktake of 9(2)(f)(iv) [REDACTED], whole of government advice, BIM prep</li> <li>• EPGG/Modelling Directors monthly update</li> </ul>	
December		<b>Wed 10 December</b> <ul style="list-style-type: none"> <li>• Adaptation indicators update (CCIEB Unit/MfE)</li> <li>• (possible) approach to ERP1 close out report</li> <li>• (possible) Target 9 for quarter ending December</li> </ul>
January 2026	<b>Meeting mid Jan (date tbc)</b> <ul style="list-style-type: none"> <li>• Target 9</li> <li>• EPGG/Modelling Directors monthly update</li> </ul>	<b>Date tbc (2nd week)</b> <ul style="list-style-type: none"> <li>• Target 9 if it can't go in December</li> </ul>