Ministry for the Environment
Manatū Mō Te Taiao

PROACTIVE RELEASE COVERSHEET

Minister	Hon Simon Watts	**Portfolio**	Climate Change
Name of package	Projections 2025	**Date to be published**	Week of 1 Dec 2025

List of documents that have been proactively released		
Date	***Title***	***Author***
8 Sep 2025	1. BRF 6754 Final Greenhouse Gas Emissions Projections for 2025	Ministry for the Environment

Information redacted **YES X** **NO**

Any information redacted in this document is redacted in accordance with the Ministry for the Environment's policy on proactive release and is labelled with the reason for redaction. This may include information that would be redacted if this information was requested under Official Information Act 1982. Where this is the case, the reasons for withholding information are listed below. Where information has been withheld, no public interest has been identified that would outweigh the reasons for withholding it.

Summary of reasons for redaction

Some information has been withheld to maintain policy decisions still under consideration.

Ministry for the Environment
Manatū Mō Te Taiao

Briefing: Final Greenhouse Gas Emissions Projections for 2025

Date submitted: 8 September 2025
Tracking number: BRF-6754
Sub Security level: CLASSIFICATION

Actions sought from Ministers		
Name and position	***Action sought***	***Response by***
To Hon Simon WATTS **Minister of Climate Change**	For noting only	

Actions for Minister's office staff

Return the signed briefing to the Ministry for the Environment (advice@mfe.govt.nz).

Appendices and attachments

1. Projections have been subject to quality assurance throughout development
2. Agriculture scenarios beyond 2030 for efficacy and adoption of mitigation technologies
3. 2025 Projections by sector and emissions budget

Key contacts at Ministry for the Environment			
Position	***Name***	***Cell phone***	***First contact***
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Minister's comments

Final Greenhouse Gas Emissions Projections for 2025

Key messages

1. Emissions projections support you to meet your statutory obligations under the Climate Change Response Act (CCRA), including understanding progress to meet climate targets and budgets. They are a useful tool to support your adaptive management assessment to meeting emissions budgets. Annual projections follow annual updates to the greenhouse gas inventory and capture other new information and updated assumptions of real-world activity.

2. We provided you with Provisional 2025 Projections [BRF-6512 refers] and noted that quality assurance and control processes (QA/QC) were still to be undertaken before projections were finalised. QA/QC has been undertaken which includes external assurance and checks conducted by Concept Consulting who provided ongoing technical support for modelling. Overall, the projections have had minimal change since the provisional results.

3. Final 2025 Projections show New Zealand's progress toward meeting Emissions Budgets 1 (EB1) and 2 (EB2) remain on track, confirming the provisional adaptive management assessment that no response or corrective action is needed at this stage [BRF-6688 and BRF-6730 refer]. 2025 Projections indicate that:

    - Emissions are projected to overachieve EB1 with a 'buffer' of 7.8 Mt and EB2 with a buffer of 4.5 Mt. This is an improvement on projections for the second emissions reduction plan (ERP2).

	ERP2 projections	2025 Projections	Change[1]
EB1 (290 Mt)	284.1 Mt	282.2 Mt	-1.9 Mt
Buffer	5.9 Mt	7.8 Mt	
EB2 (305 Mt)	303.1 Mt	300.5 Mt	-2.5 Mt
Buffer	1.9 Mt	4.5 Mt	

    - The 2030 biogenic methane target is within the projected range of uncertainty, although the central scenario indicates methane emissions at levels below the 10% target.

    - Scenario analysis for methane emissions indicates the methane component of the 2050 target is achievable, although additional work may be needed.

[1] Figures in this table may not add up due to rounding in the decimal places.

- New Zealand can achieve the long-lived gas component of the 2050 target, although there is significant uncertainty in projecting emissions that far into the future.

- Emissions in Emissions Budget 3 (EB3) are projected to be higher than the statutory limit, although with a narrower gap than in ERP2 projections.

- Net emissions in sectors covered by the New Zealand Emissions Trading Scheme (NZ ETS) are below the NZ ETS cap[2].

4. The 2025 Projections also show the emissions impact of some ERP2 policies are now expected to be lower or delivered later. This particularly applies to non-transport energy and waste.

5. Officials will work with your office to release 2025 Projections publicly. Officials will also identify and implement any changes ahead of next year's projections, as part of the Ministry for the Environment's ongoing work programme for continuous improvement.

6. Final 2025 Projections will support your adaptive management assessment for EB2 and response to the Climate Change Commission's emissions reduction monitoring report. These are planned for consideration by Cabinet in October [BRF-6688 refers], and you will be receiving the draft Cabinet paper at a similar time to this briefing [BRF-6730 refers].

[2] The NZ ETS cap refers to how much of New Zealand's overall emissions budget is expected to be achieved by sectors covered by the NZ ETS. The cap is a critical component of settings decisions that is required for both the calculation of unit volumes and determining price control settings.

Recommendations

We recommend that you:

a. **note** the final Greenhouse Gas Emissions Projections for 2025.

b. **note** that following appropriate quality assurance and control checks, no substantive changes have occurred since you received provisional projections on 20th August.

c. **note** officials have an ongoing work programme for continuous improvements to support projections.

d. **note** final 2025 projections will support your adaptive management assessment for EB2 and response to the Climate Change Commission's emissions reduction monitoring report.

Signatures

Hemi Smiler
General Manager
Climate Change Mitigation
3/8/2025

Hon Simon WATTS
Minister of Climate Change
Date

Final Greenhouse Gas Emissions Projections for 2025

Purpose

7. The purpose of this briefing is to provide you with the final Greenhouse Gas Emissions Projections for 2025 (2025 Projections). Following this briefing, officials will work with your office to release these projections publicly.

Emissions projections support your statutory obligations

8. Emissions projections support you to meet your statutory obligations under the Climate Change Response Act (CCRA), including understanding progress to meet climate targets and budgets. Annual projections follow annual updates to the greenhouse gas inventory and capture other new information and updated assumptions of real-world activity.

9. On 20 August we provided you with a briefing that outlined the Provisional 2025 Projections, noting that the projections were yet to be finalised through quality assurance and control processes (QA/QC) [BRF-6512 refers].

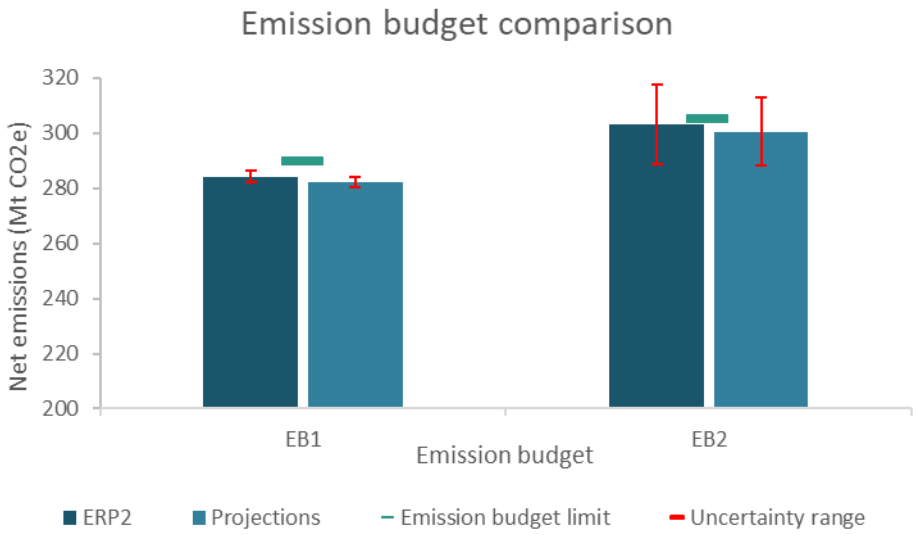
10. We have conducted QA/QC to help ensure that projections are robust, and that related key underpinning assumptions are reasonable. External assurance and checks were conducted by Concept Consulting. Appendix 1 provides further information on the QA/QC approach. The final 2025 Projections differ marginally from the provisional results.

11. Final projections will support your adaptive management assessment for Emissions Budget 2 (EB2) and response to the Climate Change Commission's (the Commission) emissions reduction monitoring (ERM) report. These are planned for consideration by Cabinet in October [BRF-6688 refers], and you will be receiving the draft Cabinet paper at a similar time to this briefing [BRF-6730 refers].

2025 Projections show improved buffers for EB1 and EB2

12. Emissions are projected to overachieve Emissions Budget 1 (EB1) by 7.8 Mt and EB2 by 4.5 Mt. This is an improvement on projections for ERP2 (See Figure 1). Reflecting this, the provisional adaptive management assessment that no response or corrective action is required to remain on track to meet EB2 can now be confirmed [BRF-6688 and BRF-6730 refer].

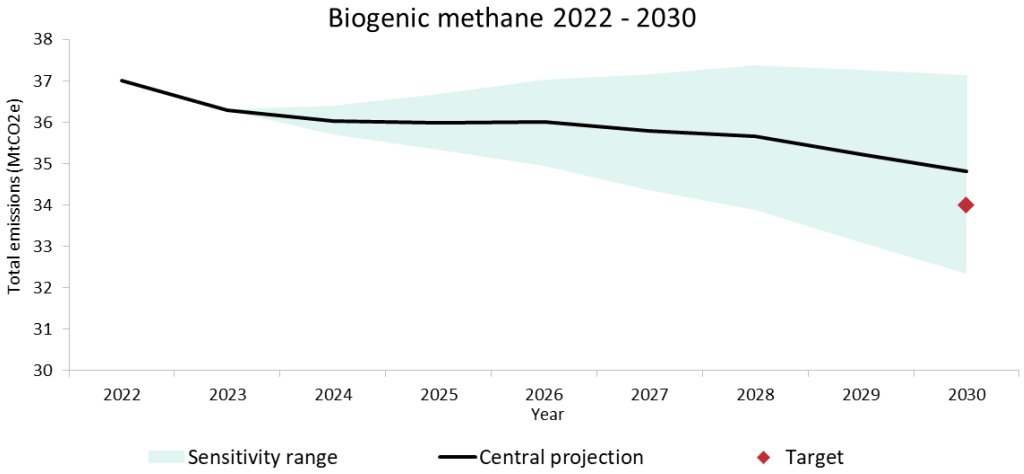
Figure 1: Final 2025 Projections and ERP2 projections for EB1 and EB2.



The 2030 biogenic methane target is within the projected range of uncertainty

13. Emissions are projected to be 7.9 per cent below 2017 levels in 2030 in the central projection. This is less than the target of 10 per cent, although the projected uncertainty range includes meeting the 2030 target (See Figure 2).

Figure 2: Final 2025 projection of biogenic methane from 2022 to 2030.



14. This reduction is less than the 10.1 per cent reduction projected for ERP2. Total emissions from the agriculture sector are projected to contribute a higher level of methane emissions over EB2 and EB3 relative to ERP2 projections. This is largely a result of increases in meat and dairy production, and livestock numbers. However private sector commitments and mitigation technology are supporting the sector to also reduce emissions.

15. 9(2)(f)(iv) [redacted].

Projections indicate the 2050 target is achievable with some uncertainty

16. There are limitations to the accuracy of projections because a series of forward-looking assumptions and inputs are required. Emission projections are not predictions, but they are credible tools when informed by careful judgements where we have reasonable confidence. Confidence in these judgement decreases the further into the future of projections because there are many longer terms factors that are influential including economic conditions, commodity prices, population growth, and technological advancement. Despite this uncertainty, longer term emissions projections can still be useful, particularly when applying scenarios analysis to understand how plausible, but uncertain future circumstances, can impact emissions.

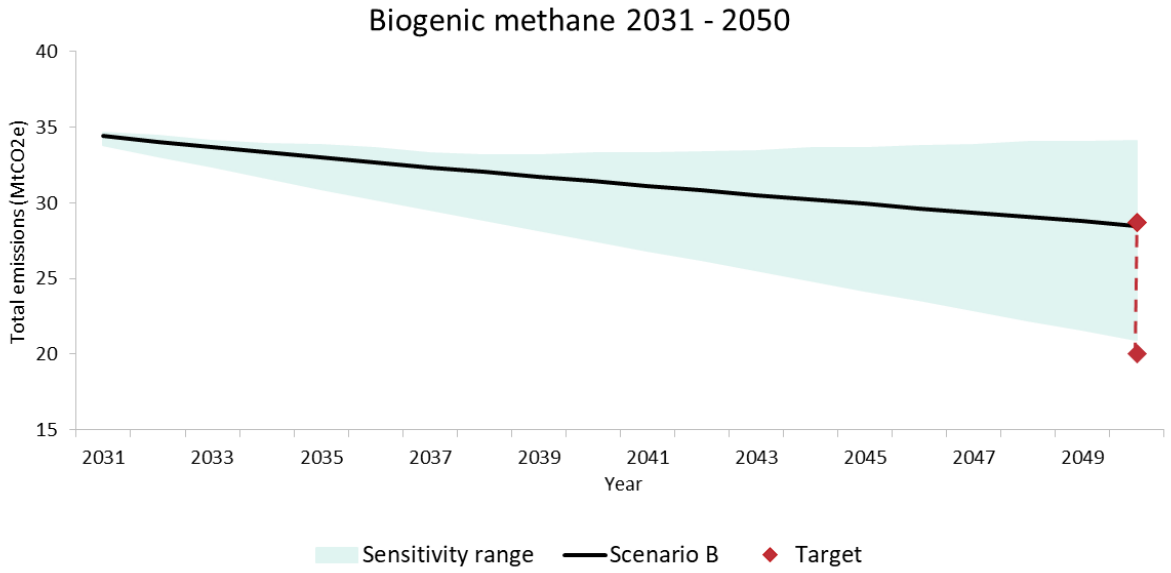
17. As long-term estimates for the impact of mitigation technology for agriculture are more uncertain, a scenario-based approach is useful to determine likely pathways to reduce emissions beyond 2030 for the efficacy and adoption of agricultural biogenic methane technologies. This approach is an evolution from ERP2 projections and is an extension of the scenario analysis historically conducted when preparing emissions projections.

18. Three scenarios have been developed that reflect different efficacy and adoption of mitigation technologies and include an estimate of the impact of the Afforestation on Crown-owned Land (AOCL) proposal (scenarios A, B and C). The Ministry for Primary Industries have more confidence in scenario B, based on a current understanding of related factors such as agricultural technology, production, market-led activity, and government policy. Appendix 2 provides more information on these scenarios.

19. Biogenic methane emissions are projected to be 24.7 per cent below 2017 level in 2050 (under scenario B). This is within the current target range of 24 – 47 per cent below (See Figure 3).

Biogenic methane 2050 target	ERP2	2025 Projections		
		Scenario A	Scenario B	Scenario C
24% - 47%	24.9%	11.2%	24.7%	43.2%

***Figure* 3: Final 2025 projection of biogenic methane using agricultural scenario B, with the sensitivity range reflecting the impact of agricultural scenarios A and C.**



20. We can achieve our long-lived gas target. Under scenario B, long-lived gas emissions are projected to achieve net zero in 2042 and be slightly below net-zero in 2050. This is a small improvement from ERP2, where emissions first achieved net zero in 2044.[3]

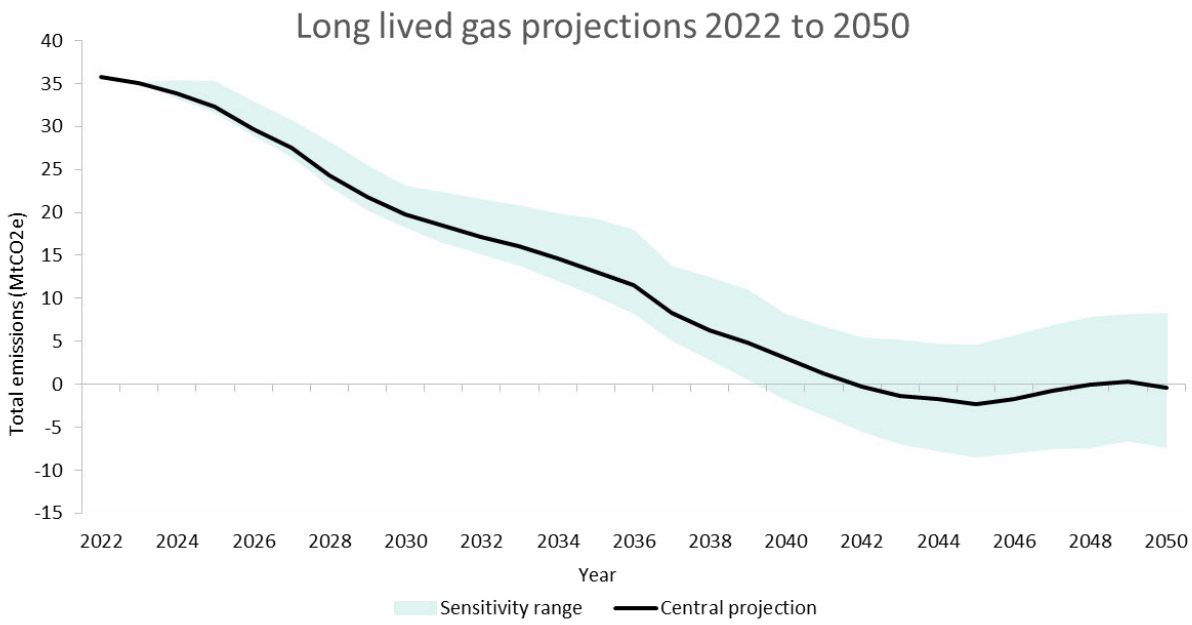
21. However, there is significant uncertainty in projecting emissions out to 2050. As with ERP2 projections, we performed a sensitivity analysis by varying key assumptions to construct high and low emissions scenarios. This is shown in Figure 4, with the widening gap between scenarios over time indicating increasing uncertainty. In the low-emissions scenario, net long-lived gas emissions reach net zero even earlier than 2042, but in the high emissions scenario net zero is not achieved by 2050.

22. Overall, net emissions remain roughly stable between 2044 and 2050. Gross emissions continue to decrease throughout the projection period, however forestry removals peak in 2044 before declining slightly. These two effects largely cancel each other out.

Long lived gas target 2050	ERP2	2025 Projections
Net zero	-0.04 Mt	-0.3 Mt

[3] Long-lived gas emissions then increased above net zero until 2050.

Figure 4: Final 2025 Projections for long-lived gases to 2050 with the sensitivity range.



Additional work may also be needed to meet EB3

23. Emissions for EB3 are projected to be higher than the statutory limit, although the gap is narrower than in ERP2 projections (noting that there is uncertainty around these estimates). Although your adaptive management assessment focuses on EB2, you may want to consider how you use this assessment in the future to signal when and how you intend on addressing this gap.

Emissions Budget 3	ERP2 Projections	2025 Projections		
		Scenario A	Scenario B	Scenario C
240 Mt	249.2 Mt	249.8 Mt	247.9 Mt	242.7 Mt

The impacts of policy measures have reduced in 2025 Projections compared with ERP2 Projections

24. Emission projections are influenced by a range of factors, including the impacts of government policies and external factors outside the governments control such as population growth, economic activity (GDP), and decisions of private sector groups.

25. Projections are a combination of the baseline, alongside the impacts of additional policy measures. The baseline includes the impacts of government policies and measures that are currently legislated, funded and implemented. The impacts of additional policy measures incorporate government policies that are under development or proposed but not yet implemented. This includes extensions or expansions of baseline policies that are planned but not yet implemented.

26. Changes in the forward outlook for the baseline can influence the impact of additional policies. This effect has occurred in the 2025 Projections, with the impact of some ERP2 policies now expected to be lower. The table below shows a comparison of the impacts of ERP2 policies in ERP2 projections and 2025 Projections by sector and emissions budget. See Appendix 3 for 2025 Projections by sector and emissions budget.

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Comparison of the impacts of ERP2 policies (Mt)

	ERP2 policy impact		2025 policy impact		Description of change in policy impacts from ERP2 to 2025 Projections
	EB2	EB3	EB2	EB3	
Transport Energy	-0.01	-0.2	*-0.01*[4]	*-0.2*[4]	No change in the impact of the ERP2 policy of 10,000 public EV charging points.
IPPU	-0.4	-0.7	-0.4	-0.6	ERP2 included the impact of an earlier implementation of a Refrigerants Regulated Product Stewardship scheme. For 2025 Projections, the modelling assumptions for this policy were unchanged. However, the impact is now slightly lower in EB3. This is because IPPU emissions in the absence of this policy are projected to be lower than they were in ERP2 – so the policy applies to a smaller emissions footprint.
Non-Transport Energy	-1.1	-2.5	-0.04	-0.2	Recent reports on the extent of gas scarcity in New Zealand were not available when the policy impact of Electrify NZ was calculated for ERP2 projections. Officials have received new information about gas scarcity in New Zealand, which shows a significant decline in predicted natural gas reserves - 2025 gas production is forecast to be 24% lower than previously estimated. This new information impacts the choices of stakeholders in the energy market. The Todd group have now publicly expressed they do not intend on pursuing Carbon Capture and Storage (CCUS) at the Kapuni site, noting gas scarcity and NZ ETS price as drivers for their announcement. As a result, officials have made a judgement to not model CCUS in the 2025 Projections. Officials intend on keeping this under review as you continue to progress CCUS legislative change, making the pathway for CCUS in New Zealand possible, and the possibility of economic variables like the NZ ETS price changing over time.
Waste	-1.8	-2.1	-1.0	-2.8	Compared to ERP2, the impact of policies on waste emissions is lower in EB2 but slightly larger in EB3. This change is due to several factors, including: • improved modelling of the likely timing of emissions reductions resulting from the Waste Minimisation Fund initiatives (with less reduction in EB2 but higher reduction in latter EBs) • higher impacts from improved landfill gas capture, as ERP2 modelling significantly underestimated the potential gains from this policy. • lower projected waste tonnages in the baseline, so there is a smaller waste volume for policies to act upon

[4] Note this policy has been moved into the baseline for 2025 Projections, so there is no difference between the baseline and 'with additional measure' projections.

Agriculture	-0.2	-10.6	-0.1	*-10.1*[5]	The modelling approach for efficacy and adoption of mitigation technologies has evolved since ERP2. For 2025 Projections a scenario-based approach was used beyond 2030, reflecting that the long-term impact of mitigation technology is uncertain. This approach means we are unable to distinguish between the different drivers of technology adoption. The *total impact of mitigation technology* in the scenario B in EB3 is -10.1 Mt. This could be achieved through either industry incentive schemes, government policy and/or a collaboration between government and industry. A higher level of uptake is also factored into the baseline for 2025 Projections compared to ERP2 (i.e., there is a higher anticipated level of industry-led adoption). Drivers of changes in agricultural sector emissions also include a stronger commodity outlook in the near term which has led to increased projected livestock numbers (particularly for dairy cattle) and an increase in projected productivity/average milk yield.
Forestry	0.4	-1.8	0.4	-1.8	The AOCL policy proposal included in 2025 Projections is consistent with that used in ERP2. This remains under review for next year's projections given the policy is still being developed, and there is an inherently high level of uncertainty in projection estimates given the early stage of policy development.
NZ ETS Settings	0.2	1.0	0.0	0.0	There was no modelled emissions impact from the NZ ETS settings decision for 2025 Projections, because Cabinet agreed on 18 August to maintain the existing unit settings. The policy impact of status quo settings is factored into the baseline.
Total[6]	**-3.2**	**-17.1**	**-1.2**	**-10.4**	

[5] The total impact of mitigation technology in scenario B in EB3 is -10.1 Mt; however, the difference between the 'with existing measures' and 'with additional measure' projections for agriculture is -5.0 Mt.

[6] Total figures in this table may not add up due to some of these policy impacts being included in the baseline (as indicated) and rounding in the decimal places.

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Emissions for sectors covered by the NZ ETS are projected to be lower than the NZ ETS cap

27. The NZ ETS cap refers to how much of the emissions budget is expected to be achieved by sectors covered by the NZ ETS. The cap informs both how many units can be made available for auction and the price control settings. Clarity on the NZ ETS cap is important for supporting market credibility.

28. The table below shows that the 2025 Projections for sectors covered by the NZ ETS are projected to be lower than the ETS cap (the NZ ETS share of emissions budgets) recently agreed by Cabinet.

	Projected net NZ ETS emissions (Mt)	NZ ETS cap (Mt)
EB2	82.9	89.4
EB3	39.1	40.7

29. The NZ ETS caps for EB2 and EB3 are consistent with the direction set in ERP2 and reflect the NZ ETS as our main tool to reduce net emissions. The current projections indicate a buffer developing within the cap itself, which can help manage future risks of sectors covered within the NZ ETS (e.g. a dry hydro year) or act to offset non-ETS emissions reducing more slowly than expected.

30. As total emissions are currently projected to exceed EB3, closing the gap for the EB3 gap may require either reducing the NZ ETS cap in EB3 further, or reductions in emissions outside the NZ ETS.

31. An immediate response to projected emissions in EB3 and the potential implications for the NZ ETS cap is not necessary. Projections are only one input into your consideration of how to respond to progress towards emissions budgets through your adaptive management approach. You will also receive advice from the Commission in April as part of the 2026 ETS Settings process covering 2027-2031. This will be the first time that emissions in NZ ETS covered sectors during EB3 will be considered and the Commission's advice will include analysis on the surplus of NZ ETS units.

How we are tracking against our NDCs

32. We have used these updated projections to update how we are tracking towards our Nationally Determined Contributions (NDCs) under the Paris Agreement. Our NDC targets are:

- NDC1 – reduce net 2030 emissions to 50% of 2005 gross emissions (managed as a budget over the period 2021 – 2030)
- NDC2 – reduce net 2035 emissions to between 51% and 55% of 2005 gross emissions (managed as a point-year estimate).

	NDC 1			NDC 2		
	Target	Projected emissions	Gap	Target	Projected emissions	Gap
ERP 2	578.8	663.0	84.2	39.0 - 42.4	45.8	3.3 – 6.8
2025 Projections	574.8	658.7	84.0	38.5 - 42.0	46.1	4.1 – 7.6

33. As shown in the table, the gap to NDC1 is largely unchanged (even though emissions over the NDC1 period have reduced). This is because the NDC1 budget is calculated using historic emissions for 2005 and 2020 and actual emissions for those years were lower than previously estimated. In turn this means the NDC1 budget also goes down.

34. In contrast the gap to NDC2 has slightly increased. This is because of two interconnected drivers. Emissions in 2035 are projected to be slightly higher than when projected for ERP2. Whereas the NDC2 target had reduced slightly (because it is relative to the 2005 emissions, which were revised down).

The ongoing work programme for projections takes a continuous improvement approach

35. With 2025 Projections finalised, officials are looking ahead to prepare for projections for 2026. The Ministry has an ongoing work programme for continuous improvement of projections. This has four phases – Review, Prepare, Update and Deliver – although exact timings can shift and overlap:

Approximate timing	Phase	Key steps
Sep – Oct	Review	• Lessons learned and review of process • Identification of any changes needed and plans established to action those
Oct – April	Prepare	• Implementing any changes or improvements to processes and approaches
April – June	Update	• Update models with annual data, including from inventory (ready in April) • Update following any changes in policy etc • Confirm assumptions • Agencies prepare inputs for cross sector modelling
June – Sep	Deliver	• Run cross sector modelling • Quality assure/check modelling outputs • Advice Ministers • Publish

36. Officials will shortly move into the Review and Prepare phases, having already identified a few key changes to explore before next year's projections. Key provisional changes include:

- 9(2)(f)(iv) [redacted]

- [redacted]

- [redacted]

37. Officials will also work to begin implementing standards for projections development and delivery in line with your proposed changes to the CCRA.

Next steps

38. Officials will work with your office to determine a suitable date to release 2025 Projections publicly on the Ministry's website. We can liaise with your office to provide any communications material to support you ahead of publication of projections.

39. At a similar time to this briefing, you will be receiving the draft Cabinet paper on your adaptive management assessment for EB2 and response to the Commission's ERM report. These are planned for consideration by Cabinet in October.

Appendix 1: Projections have been subject to quality assurance throughout development

1. Our modelling approach to producing annual projections includes sound quality assurance and quality control (QA/QC) processes to help ensure that projections are robust, and that related key underpinning assumptions are reasonable.

2. Quality assurance over projections included a dedicated cross-agency governance body and close oversight by senior officials to agree inputs, assumptions and sense-check results. This was supported by MfE and agency technical experts (and policy leads as required) who undertook QA/QC processes as part of providing data or modelling inputs to the ENZ model for their sector, assessing results for each sector, and in confirming the cross-sector results.

3. Across sector models and inputs, MfE and other agencies worked together to follow quality assurance processes. The approach to produce modelling varied across sectors due to a range of factors, including whether sector emissions are calculated with ENZ or are added to the model as an external input.

4. At a high level, the process for assuring the quality of the modelling and input data included:

    - discussing initial results with agencies to identify sources of differences from sector model results. Where possible, adjustments were made to key input assumptions to ensure coherent and credible results

    - providing memos for responsible cross agency governance with written up results, sectoral analysis and causal factors, and input assumptions

    - doing quality checks and proofing of modelling runs and refining results by MfE technical leads, including peer review of final data and its presentation.

5. External assurance and checks were conducted by Concept Consulting who were contracted to support the development of modelling as required and conduct a review of ENZ-based cross-sector modelling. This included QA/QC steps to verify the integrity, consistency and accuracy of ENZ modelling for 2025 projections.

Appendix 2: Agriculture scenarios beyond 2030 for efficacy and adoption of mitigation technologies

1. Long-term estimates of the impact of mitigation technology are highly uncertain. To illustrate some of this uncertainty, three scenarios have been developed:

    i. Scenario A – this assumes an incentive to adopt mitigation technologies continues beyond 2030, similar in scale to that currently created by Fonterra and Synlait's existing Scope 3 targets. It also assumes the existing objectives for efficacy of mitigation technologies are achieved (e.g. a 10 per cent effective methane vaccine by 2028 and a 30 per cent effective vaccine by 2034). This incentive could come in the form of government policy (such as pricing), industry incentive schemes (such as Fonterra's Co-operative Difference Scheme) and/or a collaboration between government and industry.

    ii. Scenario B – this scenario is the same as scenario A, except from 2030 to 2050 we assume that continued technology development leads to improvements in the efficacy of key mitigation technologies and that there is a stronger driver of adoption through industry incentives and market drivers.

    iii. Scenario C – this scenario includes a much higher level of technology adoption and improvements in the efficacy of key mitigation technologies between 2030 to 2050.

2. In terms of technology adoption, efficacy and the range of available technologies, the initial scenario A is based largely on what we know now about technologies currently in development.

3. The industry-driven technology adoption is also limited to the amount of "ambition" that industry has committed to in the short-term (as per Fonterra and Synlait's short-term Scope 3 targets). Industry "ambition" has not been explicitly extrapolated further in the Scenario A beyond 2030.

4. The scenarios B and C illustrate possible pathways of the potential impact of further improvements in the efficacy of technology and further adoption of technologies. Continued investment in technology development is likely to result in improvements in efficacies over the next 25 years.

5. Further adoption could be driven by a combination of decreases in costs with economies of scale, further industry ambition, increasing market drivers for low emissions products, and potential government incentives and/or support. In these scenarios it is not possible to isolate and estimate the impact of any one factor driving technology uptake in these scenarios.

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Appendix 3 – 2025 Projections by sector and emissions budget

Sector	2025 Projections		
	EB1	EB2	EB3
Transport Energy	55.7	68.0	64.0
IPPU	16.6	15.2	14.3
Non-Transport Energy	59.4	67.1	57.5
Waste	12.3	14.1	12.0
Agriculture	163.0	200.9	194.0
Forestry	-24.8	-64.8	-94.0
Total	**282.2**	**300.5**	**247.9**