

This section identifies the RAG status and milestones for 'Critical Actions' that have been identified by agencies.

Guidelines for selection of critical actions are:

- The action is projected to make a significant contribution towards meeting the sub-sector target and/or has a low cost of abatement (e.g., the GIDI Fund)
- The action is pivotal to enabling a future low emissions and climate resilient system
- The action has high inter-reliance with other actions in the ERP and NAP i.e., if it is not delivered it will affect the delivery of other actions in the plans
- The action is expected to have high significance to Ministers and/or the NZ public (e.g., He Waka Eke Noa).
- The action has significant implications for an equitable transition, empowering Māori and/or wider environmental co-benefits (e.g., Māori climate action platform).

ERP Chapter	Focus area / Action header	Actions for Delivery	1 Major Milestone set for next 6 months (Jan -Jun 2023)	RAG Status (on progress to date and potential to achieve future milestone)
O2: Empowering Māori		2.1 Establish a platform for Māori climate action.	Q1 23 ministerial advisory committee workplan delivered (Jan)	
O3: Equitable transition	Objective 2: Support proactive transition planning	3.2.1 Develop an equitable transition strategy.	Release draft Strategy for consultation	
		3.2.2 Support regions and industries to manage the transition.	Commence implementation	
		3.2.3 Implement the Just Transition Partnerships Programme.	Delivery of the actions agreed in the Southland Just Transition work programme	
	Objective 3: An affordable and inclusive transition to support all New Zealanders	3.3.3 Strengthen employment support services.	Options explored for targeting appropriate ALMPs	
	Objective 4: Build the evidence base and tools to monitor and assess impacts	3.4 Build the evidence base and monitor and assess impacts.	Final report received from supplier	
O4: Working with nature		4.1 Prioritise nature-based solutions.	Q1 2023: NbS issues and opportunities scoping exercise complete.	
		4.2 Establish an integrated work programme to deliver climate, biodiversity and wider environmental outcomes.	Q1 2023: Key maladaptation risks are identified	
		4.3 Report on biodiversity outcomes.	Q2 2023: Guidance for agencies completed.	

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05: Emissions pricing	Focus area 1: NZ ETS settings	5.1 Align New Zealand Emissions Trading Scheme (NZ ETS) settings with emissions budgets.	Q1 2023: updated NZ ETS unit settings take effect	
	Focus area 2: Adjust the NZ ETS to drive a balance of gross and net emissions reductions	5.2.1 Adjust the NZ ETS to drive a balance of gross and net emissions reductions.	Q1 2023: Cabinet decisions on next phase of the review	
07: Planning and infrastructure		7.1 Improve the resource management system to promote lower emissions and climate resilience.	Select Committee process continues. The NBE and SP Bills are expected to be enacted in the current parliamentary term. Work continues on the development of the CAA. It is expected that a Bill for the CAA will be introduced to Parliament in 2023.	
		7.4 Improve the evidence base and tools for understanding and assessing urban development and infrastructure emissions.	Contract work to develop emissions impact assessment tools that can be used in regional spatial planning	
08: Research, science, innovation and technology		8.1.1 Establish a portfolio of Climate Innovation Platforms to support and coordinate strategic, effective and innovative initiatives.	s 9(2)(f)(iv)	s 9(2)(f)(iv)
09: Circular economy and bioeconomy		9.2 Increase data collection and research to measure baselines and indicators.	Research tranches 1 and 2, to build the CEBE evidence base, are commissioned	

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10: Transport	Action 10.1.1: Integrate land use planning, urban development and transport planning and investments to reduce transport emissions	Require new investments for transport projects to demonstrate how they will contribute to emissions-reduction objectives and set a high threshold for approving new investments for any transport projects if they are inconsistent with emissions-reduction objectives.	s 9(2)(f)(iv)	s 9(2)(f)(iv)
	Action 10.1.2: Support people to walk, cycle and use public transport	Develop VKT reduction programmes for Aotearoa New Zealand’s major urban areas (Tiers 1 and 2) in partnership with local government, Māori and community representatives.	First half 2023: Initiate Council engagement for urban VKT reduction programmes	
		Revise Waka Kotahi’s national mode shift plan (Keeping Cities Moving) to ensure nationally led activities align with the pace and scale of VKT reduction and mode shift required in urban areas.	Q2. June 2023: National plan published	
		Set sub-national VKT reduction targets for Aotearoa New Zealand’s major urban areas (Tiers 1 and 2) by the end of 2022.	Mid 2023 – Sub-national VKT targets will be finalised following further targeted consultation	
	Action 10.1.2: Support people to walk, cycle and use public transport	Substantially improve infrastructure for walking and cycling.	2022-24: Implementation of Transport Choices package.	
		Support a major uplift in all urban bus networks nationwide, including by improving bus driver terms and conditions.	2023: Subject to additional funding, further improvements are made to base wage rates to reach the nationwide standard and nationally agreed wage. Allowances are implemented, to achieve national consistency.	
		Work with local government to make public transport more affordable, with a particular focus on low-income users.	Q1. From February 2023: Community Connect launched nationwide.	
	Action 10.1.3: Enable congestion charging and investigate other pricing and demand management tools to reduce transport emissions	Consider progressing legislative changes to enable congestion charging.	If approved, draft Bill	
		Engage with Wellington City Council and Greater Wellington Regional Council in response to their request for congestion charging (contingent on the Government decision to enable congestion charging). Investigate ways to mitigate the adverse impacts of congestion charging on low-income individuals and households (contingent on the Government decision to enable congestion charging).	s 9(2)(f)(iv)	s 9(2)(f)(iv)
		Monitor interest in congestion charging from other councils and engage as necessary (contingent on the Government decision to enable congestion charging).	Milestone to be set once Cabinet approves and work program begins.	
		Work with Auckland Council on a detailed design of congestion charging for Auckland (contingent on whether the Government decided to enable congestion charging).	Milestone to be set once Cabinet approves and work program begins.	
	Action 10.2.1: Accelerate the uptake of low-emission vehicles	Implement the Clean Vehicle Standard to increase the quantity and variety of low- and zero-emissions vehicles supplied to Aotearoa.	2023: Legislated targets commence	
	Action 10.2.2: Make low-emissions vehicles more accessible for low-income and transport-disadvantaged New Zealanders	Implement an equity-oriented vehicle scrap-and-replace scheme to make cleaner vehicles and low-emissions alternatives affordable for low-income households.	Q1. February briefing and Minister decisions on delegated items Q2. April-2023: Trial commences in at least one location.	
		Support social leasing schemes to make access to cleaner vehicles affordable for low-income households.	Q1. February 2023: Social leasing trials approved by Cabinet Q2. April-2023: Trial commences in at least one location.	

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10: Transport	Action 10.2.3: Support the rollout of EV charging infrastructure	Complete a national EV-charging infrastructure strategy to set out the Government’s vision and policy objectives (for both the public and private sectors) around EV charging over future emissions budget periods.	Q1. End of March - public consultation complete	
	Action 10.3.1: Support the decarbonisation of freight	Establish a freight decarbonisation unit to help decarbonise the freight sector through regulation and investment policy.	Complete	
		Evaluate options for road user charges (RUC) to support emissions reductions, including whether to extend the heavy-EV exemption from RUC and whether to set RUC rates differently by fuel type/emissions.	s 9(2)(f)(iv)	s 9(2)(f)(iv)
		Evaluate options to: <ul style="list-style-type: none"> • improve the efficiency of heavy vehicles • regulate heavy vehicle imports to reduce emissions • support infrastructure development for green fuels and fast charging for heavy vehicles • reduce emissions from heavy vehicles operated 	No milestones for this period as this work is in its infancy and there has been some delays to this work due to capacity constraints.	
	Action 10.3.2: Accelerate the decarbonisation of the public transport bus fleet	Provide funding to support the freight sector to purchase zero- and low-emissions trucks.	Early 23 : Design of LETF freight decarbonisation funding round will commence’	
		Identify and remove barriers to decarbonisation of the public transport bus fleet through the PTOM review.	s 9(2)(f)(iv)	s 9(2)(f)(iv)
		Require only zero-emissions public transport buses to be purchased by 2025. <ul style="list-style-type: none"> • Set a target to decarbonise the public transport bus fleet by 2035, and • support regional councils to achieve these outcomes through additional funding. 	s 9(2)(f)(iv)	s 9(2)(f)(iv)
	Action 10.3.5: Implement the Sustainable Biofuels Obligation	Implement the Sustainable Biofuels Obligation, which requires liable fuel suppliers to reduce the total emissions of the fuels they supply by a set percentage each year through the deployment of biofuels (in blended or neat form).	Q2. Support MBIE to progress the bill through select committee (indicative date for deliberation on report back to the house is 20th April 2023)	
Action 10.4: Support cross-cutting and enabling measures that contribute to the delivery of a low-emissions transport system	s 9(2)(f)(iv)	s 9(2)(f)(iv)	s 9(2)(f)(iv)	

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11: Energy and industry	Focus area 2: Ensure the electricity system is ready to meet future needs	Develop offshore energy regulatory framework.	Consult on discussion document, draft and release second discussion document	
		Investigate options for dry-year electricity storage through the New Zealand Battery Project.	Set up Phase 2 investigations based on Cabinet decisions.	
		Support the electricity market to transition to 100 per cent renewable generation.	Release of discussion paper for consultation	
	Focus area 3: Reduce our reliance on fossil fuels and support the switch to low-emissions fuels	Develop a gas transition plan.	Consultation draft of GTP approved	
		Develop a hydrogen roadmap.	Draft roadmap to be released	
	Focus area 4: Reduce emissions and energy use in industry	Continue the roll out of the Government Investment in Decarbonising Industry (GIDI) fund.	21 further projects completed	
		Develop a strategic approach or framework for addressing emissions from single-firm industries with emissions that are hard to abate.	Draft framework developed Q2 2023	
		Fund further decarbonisation of industry and heat through expansion of the GIDI.	Funding Round 5 contracted	
Focus area 5: Strategic approaches and targets to guide us to 2050	Set a renewable energy target.	Ongoing monitoring of target		
12: Building and construction	Action 12.2.2: Use the Government's purchasing power to drive market change	Deliver building-related measures within the Carbon Neutral Government Programme (CNGP).	Support implementation of phase two of the sustainable building rating systems policy.	
	Focus area 5: Establish foundations for future emissions reduction	12.5.2 Develop a strong data and evidence base.	Business case developed for tools and tech infrastructure Q1 2023	
13: Agriculture	Focus area 1: Price agricultural emissions by 2025	13.1.1 An emissions pricing mechanism is developed, and agricultural emissions are priced by 1 January 2025.	§ 9(2)(g)(i)	
	Focus area 2: Accelerate new mitigations	13.2.2 Establish a new Centre for Climate Action on Agricultural Emissions to drive a step change in research, development and commercialisation of emissions reduction technologies.	Q2: Joint Venture fully operational Q2: New Zealand Agricultural Greenhouse Gas Research Centre (NZAGRC) enhancements in place	
		Focus area 3: Support producers to make changes	13.3.1 Develop further climate-focussed extension and advisory services.	Q1 complete further(1-2) recruitment Q1-Q2: Develop Information Campaigns, Design Extension Programme and complete sizing /scoping/piloting of Growing GHG Experts Programme.
	13.3.2 Support Tikanga-based programmes to support needs and aspirations of whenua Māori entities.		Q1: Mātauranga expert leadership panel appointed Q2: Tikanga based pilot programmes commenced	

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14: Forestry	Focus area 2: Encourage native forests as long-term carbon sinks	14.2.2 Reduce the cost of native afforestation.	s 9(2)(g)(i)	
	Focus area 4: Grow the forestry and wood processing industry to deliver more value from low carbon products	14.4.1 Develop forestry and wood processing industry transformation plan (ITP).	Q1: Stand up implementation group with industry. Approval of an implementation plan. Q2: Delivery of initiatives and ongoing governance. Seek drawdown of contingency funding	
		14.4.2 Invest in expanding supply of woody biomass.	Q1. Approval to drawdown of funding, currently in contingency. Q2. Implementation of research plan and planting programme.	
15: Waste	Focus area 2: Increase the amount of organic waste diverted from landfill	15.2.1 Improve household kerbside collection for food and garden waste.	Regulations drafted following final policy decisions and Cabinet paper submitted seeking approval to gazette regulations Q2 2023	
		15.2.2 Invest in organic waste processing and resource recovery infrastructure.	Initial Expressions of Interest and applications received and assessed Q1 2023. Some applications to be at award phase Q2 2023.	
	Focus area 3: Reduce and divert construction and demolition waste to beneficial uses	15.3.2 Invest in sorting and processing infrastructure for construction and demolition waste.	Initial Expressions of Interest and applications received and assessed Q1 2023. Some applications to be at award phase Q2 2023.	
	Focus area 6: Improve waste data and prioritise a national waste licensing scheme	15.6.2 Improve information on greenhouse gas emissions from waste disposal.	National Composition Survey Programme commenced Q2 2023. National Waste Data Reporting Programme commenced Q2 2023	
16: Fluorinated gases	Focus area 4: Regulated product stewardship for refrigerants	16.4 Introduce a mandatory product stewardship scheme for refrigerants.	Final policy decisions on proposed a Regulated Product Stewardship scheme for Refrigerants Q2 2023	

s 9(2)(f)(iv)

Appendix D: Evolving and Improving Reporting

CLIMATE PROGRAMME REPORTING BEST PRACTICES

The following insights have been gathered from the UNFCCC, guidance documents from Australia, Canada, China, Scotland, Singapore, Sweden, UK, and USA as well as interviews of KPMG experts from Australia, Belgium, Canada, Denmark, Finland, Greece, Netherlands, Norway, Portugal, UK and USA.

Key elements reported

Reports recognise relevant broad national context, constraints and challenges, as well as opportunities. They address risks (typically based on transition-pathway scenarios), vulnerabilities (typically based on historical data and modelling) and propose mitigations to those risks.

Reports include details of actions, measures of these actions (both actual and signals/indicators) and expected outcomes. Measures and outcomes are typically quantified with additional qualitative data provided where context is needed. Outcomes include social and environmental as well as economic indicators.

Reports address actions already taken and those that are planned in the next reporting period. Reporting is normally presented by economic sector with additional cross-boundary summaries where relevant (e.g., urban transport).

Data collection methodologies

Data collection is recognised as a significant multi-agency effort and in all of the countries studied it is supported by both regulation and a designated central body that maintains standards, guidance and registers of data owners, as well as managing the cadence of requests and collation of data. Emissions reduction outcome monitoring is typically automated and generated through regular surveys with minimal anecdotal feedback. Adaptation programme data is typically collected at a project level with material elements being collated for presentation and review.

Scenario and outcome-based tracking

A set of three or more national transition scenarios are typically reported, allowing a range of possible assumptions to be tested rather than relying on a single set of assumptions. They enable modelling at the programme and portfolio level to provide a broad view of programme directionality and likely impacts on international and domestic government commitments.

Governance

All countries have mandated ministerial governance of climate programmes with a wide range of institutional arrangements in support. A common mechanism for ensuring effective programme governance is a hierarchy of working groups including representatives from multiple agencies and arranges by key outcome focus areas to prevent 'portfolio silos'.

Transparency

Reporting on unanticipated side-effects and contention between portfolios and initiatives within climate programmes is increasingly becoming the norm. As yet, few programmes are reporting on the climate impacts of non-climate programme initiatives.

Applying these insights

New Zealand is close to the leading edge of innovation with its cross-government approach and adaptive management of its response to climate change. The cross-government approach, including the formation of the Board, helps address the risk of portfolio silos. However, the availability of robust, timely information to inform decisions remains a central challenge for adaptive management.

Strengthening government's capability and capacity to collect, compile, and analyse climate change related data is a priority. This includes the identification of principles and best practices to be applied across the reporting cycle, and the identification of gaps and opportunities to improve data and analyses. The Climate Change Chief Executive Board Unit (the Unit) will take a systemic and methodical approach when considering how to improve the climate change related data, models and reporting.

Each reporting cycle is an opportunity to improve data and models. As such, the current report will be reviewed, seeking to: improve short-, medium- and long-term indicators; better reflect climate policy barriers and opportunities; ensure indicators and scenarios align with emerging climate science and technological innovations; enhancing the accessibility of information while ensuring it is technically accurate and meaningful; and strengthen capabilities and capacity through improved standards and methods.

Appendix E: Data Disclosure

LIMITATIONS OF THE FIRST REPORT/ITEMS NOT INCLUDED IN THIS REPORT

Confidence testing

To provide the Board and CRMG with confidence in the 6 monthly report, and in response to a direct request from the Board for additional quality assurance, the Climate Change Chief Executive Board Unit (the Unit) has commissioned Deloitte to examine a small sample of actions reported on by agencies as a part of the Unit's collation of monitoring information for the report.

The purpose of this external confidence testing is to provide some assurance over agencies' reported information, recognising that this is the first attempt at agencies' collecting and reporting ERP implementation information. The results of this external review help inform future development of a risk assurance framework for agency use.

The report will provide findings from a limited set of agency assertion samples selected by the Board and draw conclusions from the samples (recognising limitations) and provide suggestions to improve controls or processes to strengthen the quality of information from agencies for future reports.

Scope

Agencies' reported information (10 selected assertion samples) and their underlying source records, personnel involved /roles and responsibilities and quality review processes/checks undertaken.

Emissions projections data disclosure

Projections

Emissions projections on pages 8 and 9 are based on assumptions about New Zealand's economic growth and other economic variables, future policy implementation and technological advancement. If future circumstances differ from underlying assumptions, emissions could vary widely from the projections. Notably, there is currently significant uncertainty of economic conditions.

There are also significant limitations to applying these projections (compiled for international reporting purposes) for measuring progress towards our emissions reduction targets, including:

1. They do not account for *planned* policies that have not yet reached sufficient certainty of adoption or implementation i.e., many of the actions in the first emissions reduction plan are not accounted for.
2. Not all implemented policies and measures that are likely to have a significant emissions impact were able to be quantified in these projections for various reasons (e.g., time, capacity and data constraints, lack of certainty, model design constraints).
3. Assumptions are not entirely consistent between sectors and not all sector projections were fully updated.

DATA DISCLOSURE (CONTINUED)

Projections and sector outlooks are consistent with New Zealand's Eighth National Communication.

1. The Climate Change Commission's demonstration pathway is a modelled pathway to meet the Commission's recommended emissions budgets. It represents a pathway that would meet these emissions budgets but is not the only feasible pathway. In this report, the pathway has been adjusted to align with the final emissions budgets agreed to by Cabinet.
2. In January 2021, the smelter's owner Rio Tinto announced that its aluminium smelter would undergo a staged exit and close on 31 December 2024. The "with additional measures" (WAM) projection assumes closure of the smelter. However, in February 2022 Rio Tinto issued a statement that it now saw a viable future for the smelter to continue operating beyond 2024 and has since entered discussions and negotiations with electricity suppliers and other key stakeholders with a view to extending its operation. If the smelter stays open, projections will need to be updated with more emissions related to the smelter.

These projections are subject to a high level of uncertainty (which increases in magnitude further into the future) and any inferences from them at this stage should be considered as indicative only.

Historical data

New Zealand's greenhouse gas inventory is the official annual report of all anthropogenic (human induced) emissions and removals of greenhouse gases in New Zealand and our base for measuring progress towards meeting emission reduction targets. This inventory is produced each year, lagging 15 months behind the current calendar year, as part of New Zealand's obligations under the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol.

Stats NZ produces a quarterly series of gross greenhouse gas (GHG) emissions on a different, but compatible statistical methodology⁵. This provides a more current time series (7-month lag approximately) that can be used as an indicator to track New Zealand's gross greenhouse gas profile.

Due to the time lag in this data, many of the actions in the first emissions reduction plan will not have yet come into effect in the period displayed in this report. We expect the July 2023 six-monthly report to contain more current data and insights regarding ERP progress.

5. Statistics New Zealand's greenhouse gas series records production-based emissions. This was done within the System of Environmental-Economic Accounting (SEEA) framework. The SEEA basis limits the scope to the production boundary of economic residents, which contrasts the GHG inventory which measures on a territorial basis. The residency principle means the emissions from NZ residents are recorded in the EEZ and outside of the EEZ for those NZ residents overseas, AND emissions of non-residents within the EEZ are excluded so meaningful comparisons can be made with economic statistics. This leads to a difference with the GHG inventory, with SEEA estimates being around 2-3% higher.