

CLASSIFICATION

In-Confidence**Office of the Minister of Climate Change****DEV - Cabinet Economic Development Committee****Nationally Determined Contribution Strategy****Proposal**

- 1 This paper lays out a strategy to meet our nationally determined contribution (NDC) under the Paris Agreement (Appendix 1).
- 2 The paper details how the strategy at Appendix 1 will work in practice. This includes how the government will operationalise its priority for domestic action to meet the NDC, and how this will be supplemented with international cooperation. It also details how we will adapt the approach over time as domestic action is scaled up and the need for offshore mitigation decreases.
- 3 The paper also seeks agreement to progress further policy work needed to enable implementation of the strategy.

Relation to government priorities

- 4 The Government declared a climate change emergency on 2 December 2020. The Cabinet Business Committee (CBC) agreed that climate change “demands a sufficiently ambitious, urgent, and coordinated response across government to meet the scale and complexity of the challenge” [CBC-20-MIN-0097 refers].
- 5 Meeting our Paris Agreement NDC is critical to upholding the Government’s commitment to ambitious climate action and is in keeping with the declaration of climate emergency. The proposals in this paper are our strategy for achieving this.

Executive Summary

- 6 NDCs are at the heart of the Paris Agreement and the achievement of the 1.5°C long-term temperature goal. On 26 October 2021, Cabinet agreed to update Aotearoa New Zealand’s first NDC (NDC1) to reduce net emissions by 50 percent below gross 2005 levels by 2030 [CAB-21-MIN-0434].
- 7 Our NDC1 is substantially more ambitious than the domestic emissions budgets we have set for the same period (2021-2030) under the Climate Change Response Act 2002 (CCRA). There is an estimated 99 MtCO₂-e of additional abatement needed to meet the NDC over and above achievement of our first two domestic emissions budgets.

- 8 The difference between the NDC and domestic emissions budgets exists because New Zealand's domestic pace of decarbonisation is not consistent with the 1.5°C temperature goal. The economic shifts required to be consistent with 1.5°C cannot be achieved domestically by 2030. To remain consistent with a 1.5°C pathway, we have to supplement our domestic action with international cooperation, at least in the short term (ie. this decade).
- 9 At the time of updating our NDC, Cabinet also [CAB-21-MIN-0435]:
 - 9.1 noted that the government's priority is to meet NDC1 through domestic action as much as possible to support New Zealand's transition to a low-emissions climate-resilient future
 - 9.2 agreed to complement domestic action with international cooperation to access offshore mitigation, taking a portfolio approach that prioritises sustainable development outcomes and resilience in the Asia-Pacific region
 - 9.3 9(2)(f)(iv) [REDACTED]
- 10 The system of emissions reduction plans (ERPs), established under the CCRA, is how New Zealand meets emissions budgets. ERPs are the main vehicle to reduce domestic emissions as a subset of our NDC.
- 11 Meeting more of our first NDC through domestic action will require getting fully on track with our actions under the first emissions reduction plan (ERP1). It also requires doing much more through the second emissions reduction plan (ERP2), to reduce emissions beyond the domestic emissions budgets for the period 2021-2030.
- 12 The scale of emissions reductions needed to meet our first NDC means that even in the most optimistic scenarios of domestic delivery, considerable international cooperation will still be needed to supplement domestic action.
- 13 The right balance of domestic action and international cooperation for meeting our first NDC depends on several factors which are expected to change over time. It is not possible to determine upfront the exact combination of domestic action and international cooperation that will be required throughout the period. This is why a strategy that is adaptive to change is needed.
- 14 I am proposing an NDC strategy (Appendix 1) which gives effect to the Government's stated priority for domestic action and uses an adaptive management approach to policy decisions over time.
- 15 This paper details how the strategy will work in practice. This includes:
 - 15.1 priority given to domestic action through determined implementation of ERP1 and additional domestic action through ERP2, including some indicative examples

- 15.2 international cooperation to complement domestic action, primarily for our first NDC, including work that must be progressed now to ensure international options remain available
 - 15.3 an illustrative view of what future NDCs could look like, consistent with 1.5°C and our legislated net zero target for 2050, showing that the need for international cooperation has the potential to decrease over time as New Zealand takes additional domestic action
 - 15.4 an adaptive management approach that sets a 'Dynamic Pathway' for assessing the appropriate mix of domestic and offshore mitigation over time, through two-yearly monitoring and reporting cycles which provide critical decision points where adjustments may be made
 - 15.5 a view of further cross-government work needed to enable implementation of the NDC strategy. This includes funding options, accounting approaches, and institutional arrangements for monitoring progress and overseeing the Dynamic Pathway.
- 16 I propose that the NDC strategy at Appendix 1 be used to support officials and Ministers in the policy design and decision-making relevant to meeting the NDC. This includes developing ERP2, progressing international cooperation, and making adaptive decisions on the policy mix over the duration of NDC1.

Background

- 17 The impacts of climate change, including extreme weather events, such as cyclones, flooding and drought, have already begun severely impacting people and property in New Zealand. It is in New Zealand's interest, as well as the interests of our Pacific neighbours, to limit global warming to 1.5°C to minimise the worst impacts of climate change.
- 18 The Intergovernmental Panel on Climate Change (IPCC) has stated unequivocally that limiting global warming to 1.5°C requires global net zero emissions by mid-century.
- 19 Nationally Determined Contributions (NDCs) are at the heart of the Paris Agreement and the achievement of the 1.5°C long-term temperature goal. The Paris Agreement requires each country to prepare, communicate and maintain successive NDCs that it intends to achieve.
- 20 NDCs are submitted every five years¹ to the United Nations Framework Convention on Climate Change (UNFCCC) secretariat. To enhance the ambition over time, the Paris Agreement provides that successive NDCs will represent a progression compared to the previous NDC and reflect a country's highest possible ambition. Successive NDCs, in alignment with the latest available science, will step us towards our net zero target for 2050. New Zealand's second NDC is due at the end of 2025.

¹ Although the first NDC period is 10 years (2021-2030), subsequent NDC periods will be five years, ie, the second NDC will cover 2031-2035.

- 21 On 26 October 2021, Cabinet agreed to update Aotearoa New Zealand's first NDC (NDC1) to better align with the global effort to limit warming to 1.5°C. The updated NDC1 commits New Zealand to reducing net emissions by 50 percent below gross 2005 levels by 2030 [CAB-21-MIN-0434].
- 22 The enhanced transparency framework of the Paris Agreement is how countries hold each other to account. Regular reporting of information on the implementation and achievement of country commitments allows global progress to be measured. The reported information undergoes peer assessment, which builds mutual trust and confidence among countries.
- 23 Our first NDC therefore includes a commitment to international transparency and regular progress reporting. This involves taking action from the outset and showing progress as we go. The first progress report is due in 2024.
- 24 At the time of updating our NDC, Cabinet also [CAB-21-MIN-0435]:
- 24.1 noted that the government's priority is to meet NDC1 through domestic action as much as possible to support New Zealand's transition to a low-emissions climate-resilient future
 - 24.2 agreed to complement domestic action with international cooperation to access offshore mitigation, taking a portfolio approach that prioritises sustainable development outcomes and resilience in the Asia-Pacific region
 - 24.3 9(2)(f)(iv) [REDACTED]
- 25 In November 2022, I brought a paper to Cabinet to provide a progress update on the international cooperation for mitigation (ICM) work programme. I sought Cabinet agreement to authorise officials to progress discussions on international cooperation with partner countries and to signal to other Governments New Zealand's intention to use offshore mitigation to meet our NDC. Cabinet decided to defer consideration of the paper until a broader strategy for the NDC was agreed.
- 26 The present paper's focus on the NDC strategy is complemented by two further papers which I am bringing to Cabinet in parallel, relating to 1) international cooperation for mitigation and 2) a domestic Carbon Removals Strategy. Further papers outlining domestic mitigation proposals and strategies will be brought back to Cabinet.

New Zealand's first NDC is significantly more ambitious than our domestic emissions budgets

- 27 New Zealand committed to achieve its first NDC using a multi-year emissions budget for the period 2021-2030 [CAB-21-MIN-0434]. The provisional NDC1 emissions budget is 571 MtCO₂-e. This represents the cumulative net

emissions between 2021 and 2030, if net emissions decline in a straight line from 2020 levels to the point-year target in 2030.

- 28 The NDC1 emissions budget is substantially lower (ie, more ambitious) than the statutory levels of domestic action we have set for the same period under the Climate Change Response Act 2002 (CCRA). Combining our current projected emissions for 2021 with the first two domestic emissions budgets, covering 2022-2025 and 2026-2030, gives a domestic emission budget for the NDC1 period of 670 MtCO₂-e.
- 29 This means there is currently an estimated 99 MtCO₂-e gap to fill over and above achievement of our first two domestic emissions budgets. This is the equivalent of around 15 months of total net emissions at current levels.
- 30 The difference between the NDC and domestic emissions budgets exists because New Zealand's domestic pace of decarbonisation is not consistent with the 1.5°C temperature goal. The economic shifts required to be consistent with 1.5°C cannot be achieved domestically by 2030. To remain consistent with a 1.5°C pathway, we have to supplement our domestic action with international cooperation, at least in the short term (ie. this decade).
- 31 New Zealand's NDC is a commitment to a mix of domestic action and an intention to take additional responsibility for reducing global emissions.² In contrast, only domestic action is counted towards domestic emissions budgets.
- 32 Meeting more of our NDC through domestic action will require not only getting fully on track with our actions under the first ERP. It will require doing much more to reduce emissions beyond the domestic emissions budgets for the period 2021-2030.

Analysis

Strategy for meeting the NDC

- 33 I have worked with officials to develop a strategy for meeting the NDC (Appendix 1). The strategy covers the approach to meeting our first NDC and lays the foundation for meeting future NDCs that takes us on a pathway to net zero by 2050.
- 34 Recognising that future NDCs have not been set, the illustrative pathway considers the increasing ambition expected of successive NDCs under the Paris Agreement, aligned with 1.5°C, the latest available science, and the legislated net zero target by 2050.

² The NDC explicitly declares the intention to use international market mechanisms and cooperative approaches:

"In meeting its target New Zealand intends to use international market mechanisms, cooperative approaches and carbon markets that enable trading and use of a wide variety of units/emission reductions/mitigation outcomes that meet reasonable standards and guidelines to:

- ensure the environmental integrity of emissions reductions generated or purchased
- guard against double claiming/double-counting, and
- ensure transparency in accounting and governance."

- 35 The strategy gives effect to the Government's stated priority for domestic action. It also provides the ability to draw on international cooperation to contribute further emissions reductions beyond what is currently domestically viable. The strategy provides for a decreasing requirement for international cooperation in future NDC periods as our domestic transition progresses.
- 36 The remainder of this paper details how the strategy will work in practice. This includes:
- 36.1 priority given to domestic action through determined implementation of ERP1 and additional domestic action through ERP2, including some indicative examples
 - 36.2 international cooperation to complement domestic action, primarily for our first NDC, including work that must be progressed now to ensure international options remain available
 - 36.3 an illustrative view of what future NDCs could look like, consistent with 1.5°C and our legislated net zero target for 2050, showing that the need for international cooperation has the potential to decrease over time as New Zealand takes additional domestic action
 - 36.4 an adaptive management approach that sets a 'Dynamic Pathway' for assessing the appropriate mix of domestic and offshore mitigation over time. Two-yearly monitoring and reporting cycles will provide critical decision points where adjustments may be made
 - 36.5 a view of further cross-government work needed to enable implementation of the NDC strategy. This includes funding options, accounting approaches, and institutional arrangements for monitoring progress and overseeing the Dynamic Pathway.
- 37 I propose that the NDC strategy at Appendix 1 be used to support officials and Ministers in the policy design and decision-making relevant to meeting the NDC. This includes developing ERP2, progressing international cooperation, and making adaptive decisions on the policy mix over the duration of NDC1.

Prioritising domestic action to meet the NDC

- 38 The system of emissions reduction plans (ERPs), established under the CCRA, is how New Zealand meets its emissions budgets and is the main vehicle to reduce domestic emissions. ERPs are how we can deliver domestic action towards meeting the NDC.
- 39 The first emissions reduction plan (ERP1) was published last year and covers the first emissions budget (2022-2025). The second emissions reduction plan (ERP2) is being developed now and will be implemented in 2026 to cover the second emissions budget (2026-2030). ERP1 and ERP2 are therefore the two key pillars to prioritising domestic action to meet our first NDC.
- 40 The Climate Change Commission's (the Commission's) new draft recommendations for ERP2 point out that the role of emissions budgets is to

set an upper limit for allowable emissions, rather than a target. The Commission notes that if achieving emissions reductions beyond the emissions budget requirements becomes possible, doing so would offer several advantages, including closing the gap to meeting the NDC.

Prioritising domestic action through determined implementation of ERP1

- 41 Determined follow through and effective implementation of ERP1 is critical. This is not only for meeting our legislated emissions budgets, but also for ensuring we can reduce our reliance on international cooperation to meet our NDC.
- 42 In February 2023, the Climate Change Chief Executives Board (the Board) produced its first six-monthly monitoring report on the progress of the emissions reduction plan towards the first emissions budget (EB1). It also assessed progress towards emissions budgets two (EB2) and three (EB3).
- 43 The Board stated that meeting EB1 and EB2 was finely balanced and *“any reductions in scope or delays in delivery of the emissions reduction plan will make achieving emissions budgets even more challenging.”* This assessment was based on data insights from December 2022.
- 44 Officials updated this assessment in May, reflecting latest changes in the operating context. As a result, officials have determined we are no longer on track to meet EB1 through policy impact. Estimates indicate a 1.5Mt shortfall in achieving the level of abatement sought in ERP1. The amount of abatement expected from policy impacts across EB2 and EB3 has also been substantially downgraded.³
- 45 The success of ERP1 and whether we meet EB1 will also affect the size of the challenge for ERP2. Any shortfall in the first emissions budget period will increase the amount of abatement required in later budget periods to meet the NDC and the 2050 target.
- 46 The Commission’s most recent draft recommendations for ERP2 have made similar conclusions. Each of the 19 proposed recommendations indicate that the Commission has found evidence of a risk to meeting EB2 and/or New Zealand’s long-term climate change goals.⁴
- 47 I propose Cabinet agree that where ERP1 actions are not on track, as determined by the Board’s six-monthly report, agencies should be instructed to respond urgently and escalate any delivery risks to Cabinet and the Board. In addition to being critical for meeting legislated emissions budgets, this will ensure that the action we are taking now is aligned with the Government’s priority for meeting the NDC as much as possible with domestic action.

³ Our projections include a high degree of uncertainty and 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 projections scenarios.

⁴ “2023 Draft advice to inform the strategic direction of the Government’s second emissions reduction plan”, page 28 https://www.climatecommission.govt.nz/public/Advice-to-govt-docs/ERP2/draft-erp2/CCC4940_Draft-ERP-Advice-2023-P02-V02-web.pdf

Enhanced domestic action through ERP2

- 48 The CCRA requires a new emissions reduction plan to be published at least 12 months ahead of the next emissions budget period. The second emissions budget begins on 1 January 2026, meaning ERP2 must be published by 31 December 2024. Work on ERP2 is being progressed now.
- 49 The second emissions budget limits the amount of greenhouse gas emissions that are permitted from 2026-2030 to 305 MtCO₂-e (61.0 MtCO₂-e per annum) and requires significantly more abatement than EB1.
- 50 The risk of overshooting EB1 means that the challenge for ERP2 may not be limited to achieving EB2. ERP2 would be required to deliver emissions reductions that not only meet but exceed EB2.
- 51 To enhance domestic action and reduce the amount of international cooperation that will be required in the NDC1 period, ERP2 will need to deliver emissions reductions that further exceed EB2.
- 52 Delivering significantly enhanced domestic mitigation through ERP2 will take time, effort, and resourcing to develop adequate options. This work is underway. However clear direction on the ambition of policy development is needed.
- 53 I propose that development of ERP2 should include a process to identify, develop and assess significant new proposals. I further propose these should be capable of delivering emissions reductions well in excess of the second emissions budget, in order to further close the gap with the first NDC. Developing these proposals does not commit us to any particular action but will put options on the table for Cabinet to consider.
- 54 Significantly enhanced domestic mitigation could include:
- 54.1 greatly accelerated energy decarbonisation, for example by large-scale additional investment in new technologies and infrastructure
 - 54.2 rapid acceleration of emissions reduction in the other key high-emitting sectors, such as transport mode-shift or lower emission primary production practices and land use diversification
 - 54.3 working with New Zealand's most emissions intensive entities to develop bespoke pathways for decarbonisation.
- 55 The viability of these options has not been tested or analysed in detail in this paper. They are included to illustrate the nature of ideas that could deliver the scale of reductions needed, and which we could consider within the ERP2 process.
- 56 The process to develop a robust pipeline of options for ERP2 can lay a foundation of sufficient scale to deliver both our near term (EB2), medium term (NDC1) and long term (2050) goals. This will likely mean fewer, but larger and more individually impactful, 'big calls', key interventions (by both

government and non-government actors) which will have impact through to 2050.

- 57 It is essential that ERP2 take a long-term view and drive investment now to enable the larger, transformational changes needed, in a way that is fair, equitable and inclusive. The processes should consider all of the options for action to give effect to domestic ambition. They should take into account technological and economic feasibility. They should also include strong consideration of broader economic feasibility and potential broader wellbeing impacts.
- 58 I intend to bring further details on the initial scoping of ERP to the Climate Change Response Ministers Group (CRMG) in July.
- 59 While significantly enhancing domestic emissions reduction is critical, there are also opportunities to enhance domestic CO₂ removals to further minimise the need for offshore mitigation. At present, forestry is the only commercially viable source of large-scale domestic removals.
- 60 Due to lead times for planting and growth, new forestry initiatives will have minimal impact on NDC1. However, considering these initiatives now and getting implementation underway would help reduce reliance on offshore mitigation in future NDC periods. The Government will consider options for increased afforestation within the framework of a longer-term carbon removals strategy.

International cooperation is needed to supplement domestic action

- 61 The scale of emissions reductions needed to meet our first NDC means that even in the most optimistic scenarios of domestic delivery, considerable international cooperation will still be required to supplement domestic action.
- 62 In 2021 the Commission provided advice to the Government on meeting NDC1 using offshore purchasing in comparison with greater domestic action.
- 63 The Commission previously advised that the Government should adopt policies that allow it to overachieve the domestic emissions budgets. It also noted that attempting to achieve New Zealand's NDC1 through drastic domestic action, well beyond its recommended emissions budgets, would likely lead to severe social and economic costs on communities, people, and businesses.
- 64 The Commission concluded that *"even in the most technology optimistic scenarios... a significant amount of offshore mitigation is needed to meet the current NDC"*.
- 65 Aligned with the Commission's advice, Cabinet agreed to complement domestic action with international cooperation to access offshore mitigation, taking a portfolio approach that prioritises sustainable development outcomes and resilience in the Asia-Pacific region [CAB-21-MIN-0435 refers].

- 66 Cabinet also previously noted that there is a wide range of international cooperation options that are possible, with varying levels of readiness, risks and co-benefits. By developing a diverse portfolio of international cooperation options, the government can manage and spread delivery, ensure environmental integrity, and manage risks.
- 67 Officials from the Ministry for the Environment and the Ministry of Foreign Affairs and Trade have begun testing interest in cooperating with New Zealand on options for offshore mitigation with countries in Asia-Pacific and Africa, international organisations, and Multilateral Development Banks.
- 68 Progress on international engagement and the development of an International Emissions Reduction Plan that could include a pilot purchasing programme is provided in the ICM paper which I am presenting to Cabinet in parallel.

Avoided deforestation

- 69 In November 2022, Cabinet asked officials to investigate whether avoided deforestation (paying to maintain trees) could provide a cost-effective way to meet the NDC.
- 70 Currently the rules under the UNFCCC do not allow for the use of avoidance activities to count towards countries NDCs. This is because avoided emissions do not achieve the additional, quantifiable emission reductions or removals required by Article 6 of the Paris Agreement.
- 71 Other cost-effective forestry actions including afforestation, reforestation and improved forest management can be counted towards NDCs. These will be part of our NDC strategy.
- 72 New Zealand will support avoided deforestation using our international climate finance contributions. Officials will also monitor developments of the Paris Agreement rules on avoided deforestation in relation to NDCs.

The need for offshore mitigation to help meet the NDC has the potential to diminish over time

- 73 In addition to its modelling on the path to meet NDC1, the Commission also modelled indicative scenarios for the path to 2050. This set of scenarios helps convey the changes that are possible over time. They also show how Aotearoa New Zealand might be able to meet NDCs on a pathway to 2050, with little to no international cooperation.
- 74 The 'Demonstration Pathway' shows a path to 2050 where New Zealand's net domestic emissions combine some degree of new technology and behaviour change. With illustrative future NDCs demonstrating a progression over time and moderate emissions reduction progress, New Zealand would be reliant on international cooperation through to mid-century.

- 75 The Commission's 'Tailwinds Scenario' shows a path to 2050 where improvements in new technologies and behaviour change substantially increase New Zealand's ability to reduce emissions domestically. Using the same illustrative NDCs showing progression to 2050, New Zealand's reliance on international cooperation is reduced and eventually no longer needed.
- 76 The path we take to 2050 will need to be dynamic, responding to the latest available climate science and other contextual changes, including changes in available mitigation options, technology, social license, business models, finance, and investment. An adaptive strategy that can respond quickly to change and maximises opportunities where low-carbon technologies become more affordable, attractive and accessible, has the potential to shift the policy balance over time.
- 77 The NDC strategy enables this adaptive management approach to allow for the shift away from international cooperation as more domestic action is developed and implemented. This could lead to a future more in line with the Commission's 'Tailwinds Scenario'.

Determining the right balance of domestic action and international cooperation over time

- 78 The right balance of domestic action and international cooperation for meeting our first NDC depends on several factors. These include the cost of abatement, the availability of mitigation opportunities, social and economic impacts, and the short and long-term benefits to New Zealand.
- 79 These key factors are expected to change over time. Such changes create a high degree of uncertainty on the path to meet even the first NDC. It is not possible to determine upfront the exact combination of domestic action and international cooperation that will be required throughout the period. This is why a strategy that is adaptive to change is needed.
- 80 Using an adaptive management approach, the strategy to meet the NDC delivers a 'Dynamic Pathway' to 2030. The Pathway is designed to enable oversight and strategic decisions behind the policy mix. It considers changes in key factors and changing contexts, with decisions able to be made iteratively as options become available.
- 81 The choices along the Pathway are guided by five principles to deliver consistency in decision making within changing contexts.
- 81.1 **Contribute to the global fight against climate change** – New Zealand continues to make a full contribution to global efforts to reduce emissions in line with the 1.5°C temperature goal of the Paris Agreement and encourages and reinforces full efforts from other countries.
- 81.2 **Prioritise action to reduce emissions in New Zealand** – supplemented by international cooperation to deliver an equitable transition to a net zero and climate-resilient economy.

- 81.3 **Work in partnership** – Give effect to Te Tiriti o Waitangi reflecting the Crown-Māori relationship in setting policies to meet the NDC.
- 81.4 **Support an equitable transition** – Ensure an equitable climate change transition that recognises and addresses the distributional impacts of emissions reduction policies.
- 81.5 **Align with New Zealand’s national priorities** – Manage the balance of domestic and international action over time in line with New Zealand’s national priorities and best overall interests, in a way that is economically and fiscally responsible and creates future opportunities and benefits. This includes a preference for international action that supports sustainable development goals of partner countries prioritising the Asia-Pacific region to the maximum extent possible.
- 82 The Dynamic Pathway is anchored around established monitoring and reporting two-year cycles that provide key assessment points for decision-making. These include Biennial Transparency Reports (BTRs) to the UNFCCC and domestic monitoring and reporting on ERP implementation and progress against emissions budgets.
- 83 The assessment and reassessment cycle will prioritise domestic delivery and determine how much offshore mitigation is required to demonstrate progress for the next cycle.
- 84 Under-delivering domestic action will require additional offshore mitigation, but exceeding the emissions budgets will require less. The current projected shortfall, based on meeting the first two emissions budgets, requires approximately 99Mt of CO₂-e.
- 85 The Dynamic Pathway proposes drawing from a portfolio of offshore mitigation in three tranches throughout the NDC1 period, to complement domestic action as delivered through ERP1 and ERP2.
- 86 The tranches of international cooperation were developed by Ernst and Young (EY) in a report commissioned by MFAT. The report highlights that there is no readily available market for offshore mitigation that can currently be used towards NDCs.
- 87 New Zealand will need to identify and develop bespoke options as soon as possible to enable adequate consideration of volume, price, and readiness. Once opportunities are identified and established, the tranches allow for progressive access that reduces delivery risks.
- 87.1 *Tranche A* commits a minimum volume requirement as soon as possible. It would include a diversified mix of cooperation in the form of a portfolio that delivers over different timeframes to minimise delivery risk.
- 87.2 *Tranche B* is secured progressively as the required volumes become clearer over time.

- 87.3 *Tranche C* consists of more flexible options and can be used as a 'top up' towards the end of the period if needed based on the status of domestic delivery.
- 88 International cooperation has a lag time of approximately 2-5 years before offshore mitigation can be used towards our NDC. To have the ability to access these options and secure them in tranches as needed, it is critical for work to be progressed now. Any delays would risk losing these options altogether.
- 89 I am seeking Cabinet decisions through the parallel ICM Cabinet paper which elaborates on the development of the portfolio of options for offshore mitigation.

Further policy work is needed on institutional arrangements, funding, and accounting for the NDC

Institutional arrangements for oversight are needed

- 90 To enable the assessments and decisions around the balance of domestic action and international cooperation there is a need for effective oversight of the implementation of the NDC strategy. I am seeking Cabinet agreement to progress the policy work needed for these arrangements.
- 91 I suggest that the Climate Change Chief Executives Board should provide this oversight, given it is already responsible for overseeing ERP implementation and progress against domestic emissions budgets. Effective oversight of NDC strategy implementation would require bringing the ERP monitoring processes and the international portfolio process into alignment.
- 92 Necessary functions include (noting a more nuanced breakdown of necessary functions will emerge as analysis progresses):
- 92.1 maintaining an account of progress towards the NDC, including both domestic reductions and removals and the quantity of offshore mitigation accessed
 - 92.2 overseeing the pipeline for development of new domestic options and taking stock of new opportunities
 - 92.3 revisiting the ambition and pace of action being taken under ERP2
 - 92.4 adjusting the balance of domestic and offshore action at key decision points and as opportunities emerge, in accordance with the NDC strategy principles and Dynamic Pathway.
- 93 More significant institutional change is likely to be needed to manage aspects of the international mitigation portfolio, in particular the commercial transactions that arise. 9(2)(f)(iv)
- I expect to return to Cabinet to seek decisions on an appropriate arrangement by December this year as part of the International Emissions Reduction Plan.

- 94 I am seeking Cabinet agreement to progress the necessary policy work to determine institutional arrangements needed for the wider NDC strategy in consideration of existing infrastructure, including the Climate Change Chief Executives Board.

Funding arrangements for the NDC need to be established

- 95 The Climate Change Economic and Fiscal Assessment (CEFA) released in April 2023 highlights the fiscal cost of meeting the NDC and the uncertainty surrounding the total cost assessment.
- 96 The report emphasises that there are several factors that impact the estimated cost of meeting the NDC which are difficult to ascertain upfront. The total fiscal cost of will depend not only on the costs of international emissions reductions, but also the direct and indirect fiscal costs of accelerating New Zealand's domestic transition.
- 97 The cost of using offshore mitigation from international cooperation is highly uncertain. However, at the time of updating our NDC in 2021, Cabinet noted that the cost is likely to be significant. Although officials did not provide a specific cost estimation to meet an NDC of a 50% reduction by 2030, Cabinet noted that offshore mitigation required for a 49% reduction might cost in the range of \$7.5 to \$13.2 billion between 2021 and 2030 [CAB-21-MIN-0434].
- 98 More recently, the cost of offshore mitigation to meet the NDC commitment has been estimated by Treasury and Ministry for the Environment officials to be between \$3-24 billion by 2030. These updated CEFA estimates are based on Cabinet's direction to develop a portfolio of options for accessing offshore mitigation, prioritising partnerships in the Asia-Pacific region (the original 2021 cost estimates focused on ETS linking as the main source of offshore mitigation 9(2)(j) [REDACTED])
- 99 9(2)(f)(iv) [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- 102 In addition to accessing international cooperation, funding arrangements are needed for the broader aspects of the NDC strategy. This includes funding the

institutional arrangements described above, and the development and implementation of significantly enhanced domestic mitigation options.

- 103 I am seeking Cabinet agreement to progress the necessary policy work to determine the funding arrangement for the wider NDC strategy. This will align with the work already underway on funding options for international cooperation, with options to be brought back to Cabinet.

There is a need to change how we account for our NDC to include non-forest land uses

- 104 Currently, only removals from forests are counted towards our NDC. This is because the NDC does not include non-forest land uses (eg, grassland, cropland, wetlands, other land), other than those resulting from a deforestation event. This means that emissions and removals from roughly 60% of New Zealand's land area are not included in accounting towards the NDC.
- 105 I am progressing work to analyse options for expanding our NDC accounting to include emissions and removals from non-forest land use categories. This would:
- 105.1 ensure our NDC accounting provides a transparent and accurate picture of all known emissions sources and sinks
 - 105.2 align our NDC with the express intent in the Paris Agreement that developed countries should undertake "economy-wide emission reduction targets", and with the relevant guidelines for national greenhouse gas inventories
 - 105.3 provide further opportunities for emissions reductions to close the gap to our NDC, eg, reducing emissions from drained peatlands which currently contribute 4 – 5 MtCO₂e per year
 - 105.4 encourage investment into non-forest land use and management initiatives which could offer significant co-benefits, such as flood risk reduction and enhancing biodiversity
 - 105.5 align New Zealand with most developed countries who already account for non-forest land in their NDCs (only Japan and New Zealand do not).
- 106 Expanding NDC accounting is also a necessary step to respond to long-standing calls from the agriculture sector for other types of scientifically robust carbon removal to be included in our target accounting. This is also noted in the Carbon Removals Strategy paper which I am bringing to Cabinet in parallel.
- 107 While including non-forest land uses in our NDC accounting will provide opportunities for additional sequestration and co-benefits, modelling suggests that these land use categories are currently a net source of emissions. This means their inclusion would initially make our NDC harder to achieve by 0.2 – 1.3 MtCO₂e per year, according to our best estimates.

- 108 However, this is highly uncertain due to data limitations and will vary according to the final accounting decisions such as choice of base year, and from new data collected through the NDC period. Including these land uses in NDC accounting would provide an opportunity for them to contribute to emissions reductions in future.
- 109 I propose that, subject to more detailed advice on accounting implications;
- 109.1 New Zealand's NDC target cover all different types of land, and that we work towards including non-forest land use and management interventions by 2030
- 109.2 non-forest abatement is encouraged in climate policy in advance of its eventual inclusion into New Zealand's NDC.
- 110 Officials from Ministry for the Environment, in consultation with the Department of Conservation and Ministry for Primary Industries, are analysing potential methodologies and timing options for bringing non-forest land use into our NDC accounting. I intend to bring a paper back to Cabinet by mid-2024 seeking further decisions on this work.

Financial Implications

- 111 There are no direct fiscal or wider economic implications directly arising from this paper. However, decisions made later under this strategy will have fiscal and economic consequences.
- 112 The two subsequent processes for 1) developing additional domestic action through ERP2 and 2) developing a portfolio of international cooperation for mitigation, provide mechanisms for identification and assessment of fiscal and wider economic implications of specific proposals as these come up for decision.

Legislative Implications

- 113 There are no legislative implications directly arising from this paper.

Impact Analysis

Regulatory Impact Statement

- 114 A regulatory impact statement is not required for this paper.

Climate Implications of Policy Assessment

- 115 Although decreasing greenhouse gas emissions is the key policy objective of this paper, it does not of itself create any additional implications requiring a Climate Implications of Policy Assessment.

Population Implications

- 116 There are no specific implications arising as a direct result of the proposals in this paper. However, the results of any future decisions could have flow on impacts for communities, regions, iwi/Māori and other population groups.

Human Rights

- 117 The proposals in this paper are not in any way inconsistent with the New Zealand Bill of Rights Act 1990 and the Human Rights Act 1993.

Consultation

- 118 The following agencies were consulted in the development of this paper: Te Tūāpapa Kura Kāinga – Ministry of Housing and Urban Development; Ministry of Business, Innovation and Employment; Department of Conservation; Climate Change Chief Executive's Board Unit; Ministry of Transport; Te Waihanga; Ministry of Social Development; Treasury; Ministry of Foreign Affairs and Trade; Department of Prime Minister and Cabinet; Energy Efficiency and Conservation Authority; Department of Internal Affairs; National Emergency Management Agency; and Ministry for Primary Industries.
- 119 Key concerns heard were around (a) the focus on potentially delivering additional domestic action that exceeds the second emissions budget, (b) the use of ERP2 as the main vehicle to deliver additional domestic abatement, and (c) illustrating the pathway to 2050 using future NDCs.
- 120 Some revisions have been made to mitigate agency's concerns, however this feedback has not been fully incorporated given the aim of the NDC strategy is primarily to give effect to Cabinet's stated priority of meeting the NDC as much as possible through domestic action. This priority requires enhanced domestic abatement which impacts the delivery of EB2 and the development of ERP2.

Communications

- 121 There are no communication requirements associated with this paper. I do not plan to proactively communicate this strategy at this time.

Proactive Release

- 122 I intend to release this paper at the same time as the accompanying ICM paper.

Recommendations

The Minister of Climate Change recommends that the Committee:

- 1 **note** that on 26 October 2021 Cabinet agreed to update New Zealand's NDC to better align with the temperature goals of the Paris Agreement, committing to reduce net greenhouse gas emissions to 50 per cent below gross 2005 levels by 2030 [CAB-21-MIN-0434].
- 2 **note** that at the time of updating our NDC, Cabinet also [CAB-21-MIN-0435]:
 - 2.1 noted that the government's priority is to meet NDC1 through domestic action as much as possible to support New Zealand's transition to a low-emissions climate-resilient future
 - 2.2 agreed to complement domestic action with international cooperation to access offshore mitigation, taking a portfolio approach that prioritises sustainable development outcomes and resilience in the Asia-Pacific region
 - 2.3 agreed that Emissions Trading Scheme (ETS) linking should provide a backstop for meeting New Zealand's NDC1 in addition to domestic action and international cooperation in the Asia-Pacific region.
- 3 **note** that to meet NDC1 there is an estimated 99 MtCO₂-e gap to fill over and above achievement of our first two domestic emissions budgets.
- 4 **note** that the system of emissions reduction plans (ERPs) are how we can best contribute to meeting the NDC through as much domestic action as possible.
- 5 **note** that meeting more of our first NDC through domestic action will require getting fully on track with our actions under the first emissions reduction plan (ERP1) and doing much more through the second emissions reduction plan (ERP2) to reduce emissions for the period 2021-2030.
- 6 **note** that the scale of emissions reductions needed to meet NDC1 means that even in the most optimistic scenarios of domestic delivery, considerable international cooperation will still be needed to supplement domestic action to meet NDC1.
- 7 **note** that the right balance of domestic action and international cooperation for meeting our first NDC is not possible to determine upfront.
- 8 **note** that the proposed NDC strategy takes an adaptive management approach to balancing domestic delivery and international cooperation, allowing for flexibility throughout the NDC period.
- 9 **note** that determined implementation of ERP1 in the immediate term is crucial for making progress towards our NDC.

- 10 **agree** where ERP1 implementation is not on track, as determined by the Climate Change Chief Executive Board's six-monthly report, agencies will respond urgently.
- 11 **agree** that development of ERP2 should include a process to identify, develop and assess significant new proposals that could support over-achievement of the second emissions budget, noting that any over-achievement would help to further close the gap with the NDC.
- 12 **note** that further investigation and assessment of options is required before Cabinet can decide whether delivering domestic reductions in excess of current budgets is desirable and possible.
- 13 **agree** that, in line with the proposed NDC strategy principles, assessment of these proposals should include consideration of how well a proposal aligns with New Zealand's national priorities and best overall interests, including economic and fiscal responsibility and the ability to create future opportunities and benefits for New Zealand.
- 14 **note** that developing new proposals for ERP2 does not commit us to any particular action and that further Cabinet consideration and decisions will be required.
- 15 **note** Cabinet decisions are needed as soon as possible on the development of the portfolio of offshore mitigation to enable our ability to draw from it as needed.
- 16 **note** that the Minister of Climate Change is seeking decisions on the portfolio of offshore mitigation options through the accompanying ICM Cabinet paper.
- 17 **note** officials will monitor developments of the Paris Agreement rules on avoided deforestation in relation to NDCs.
- 18 **note** that at the time of updating the NDC in 2021, Cabinet noted cost estimates for the required offshore mitigation were in the range of \$7.5 to \$13.2 billion by 2030 for an NDC of a 49% reduction [CAB-21-MIN-0434].
- 19 **note** the cost of using offshore mitigation has been estimated by CEFA analysis to range between \$3-24 billion by 2030.
- 20 **note** the total fiscal cost of achieving our first NDC will depend on the costs of international emissions reductions, as well as the direct and indirect fiscal costs of accelerating New Zealand's domestic transition.
- 21 **note** that the proposed NDC strategy has the potential to shift away from international cooperation as more domestic action is developed and implemented and as low-carbon technologies become more affordable, attractive and accessible.

- 22 **agree** to the adaptive approach provided by the 'Dynamic Pathway' for monitoring, assessing and adjusting the balance of domestic and international mitigation at key decision points.
- 23 **agree** that the NDC strategy document (Appendix 1) be used to support officials and Ministers in policy design and decision-making relevant to meeting the NDC.
- 24 **agree** to progress policy work to determine institutional arrangements needed for the wider NDC strategy in consideration of existing infrastructure, including the Climate Change Chief Executives Board.
- 25 **agree** to progress policy work to determine the funding arrangements for the NDC strategy, 9(2)(f)(iv)
- 26 **note** that the Minister of Climate Change is progressing further analysis on methodologies and time frames to expand NDC accounting to include non-forest land use categories, and intends to bring a paper back to Cabinet seeking decisions on this work by mid-2024.
- 27 **agree in principle**, subject to more detailed advice on accounting implications, that:
- 27.1 New Zealand's NDC target cover all different types of land, and that we work towards including non-forest land use and management interventions by 2030
- 27.2 non-forest abatement be encouraged in climate policy in advance of its eventual inclusion into New Zealand's NDC.
- 28 **agree** that, prior to final Cabinet confirmation of the proposal in recommendation 27 and as part of more detailed advice on accounting implications, the Ministry for the Environment and the Treasury will provide further advice to the Minister of Climate Change and the Minister of Finance on any potential future fiscal implications.

Authorised for lodgement

Hon James Shaw

Minister of Climate Change



Ministry for the
Environment
Manatū Mo Te Taiao

Nationally Determined Contribution Strategy

New Zealand's approach to meeting its Paris Agreement commitment

This material is not intended for publication at this time but is to facilitate cross-government engagement and understanding.

This slide deck has not yet been through the design process. If the proposed content and basic 'look and feel' is approved by Cabinet, officials will further refine the visual presentation.

New Zealand's NDCs are our contribution to the global effort to 1.5°C under the Paris Agreement

The science is clear – the time for action is now

With every additional increment of global warming climatic and non-climatic risks will increasingly interact, creating compound and cascading risks that are more complex and difficult to manage.

Limiting global warming to 1.5°C requires global net zero emissions by mid-century.

All IPCC global modelled pathways that limit warming to 1.5°C, and those that limit warming to 2°C, involve rapid and deep and, in most cases, immediate greenhouse gas emissions reductions in all sectors this decade.

Source: [IPCC AR6 SYR SPM.pdf](#)

Successive NDCs will step
us towards net zero by
2050

***We need a strategy
that leads the way***



The NDC Context

NDCs are submitted every five years to the UNFCCC Secretariat. To enhance ambition over time, the Paris Agreement provides that successive NDCs represent a progression compared to the previous NDC. Together, these climate actions determine whether the world achieves the long-term goals of the Paris Agreement.

Countries are requested to submit the next round of NDCs by 2025

- NDCs represent a country's highest possible ambition aligned with the 1.5°C temperature goal of the Paris Agreement.
- The Paris Agreement requires each country to prepare, communicate and maintain successive NDCs that it intends to achieve.
- Our NDC includes a commitment to transparency and regular international progress reporting. Our commitment is to take action from the outset and show progress as we go through biennial reporting to the United Nations starting in 2024.
- Meeting our NDCs and demonstrating progress will require significant new policies and investments, and transformational change throughout the economy.
- New Zealand has options for how to meet our NDCs, involving domestic action and international cooperation.
- The Government is committed to prioritising domestic action to meet our NDCs.

NDC Strategy Principles

Principles

1.	Contribute to the global fight against climate change New Zealand continues to make a full contribution to global efforts to reduce emissions in line with the 1.5°C temperature goal of the Paris Agreement and encourages and reinforces full efforts from other countries
2.	Prioritise action to reduce emissions in New Zealand Prioritise domestic action to reduce emissions supplemented by international cooperation to deliver an equitable transition to a net zero and climate-resilient economy
3.	Work in partnership Give effect to Te Tiriti o Waitangi reflecting the Crown-Māori relationship in setting policies to meet the NDC
4.	Support an equitable transition Ensure an equitable climate change transition that recognises and addresses the distributional impacts of emissions reduction policies
5.	Align with New Zealand's national priorities Manage the balance of domestic and international action over time in line with New Zealand's national priorities and best overall interests, in a way that is economically and fiscally responsible and creates future opportunities and benefits. This includes a preference for international action that supports sustainable development goals of partner countries with a focus on the Asia-Pacific region

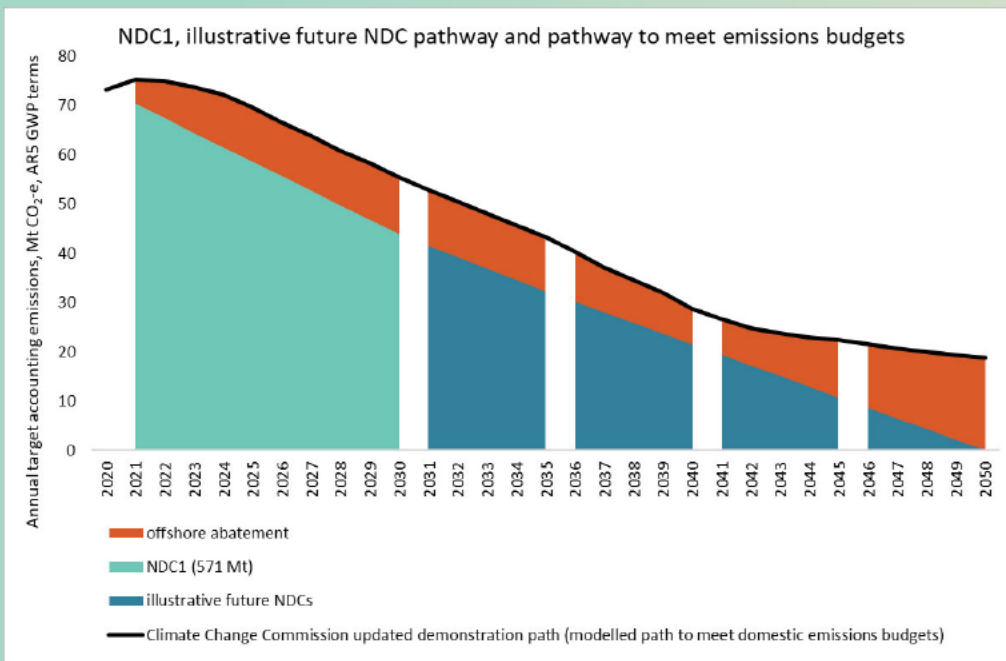


Illustrative NDCs on the path towards a Net Zero New Zealand

The path to 2050 will be dynamic, responding to changing circumstances and available options, including technology, social licence, business models, finance and investment

Based on the Climate Change Commission modelling and analysis, there are two main indicative scenarios on the path to 2050

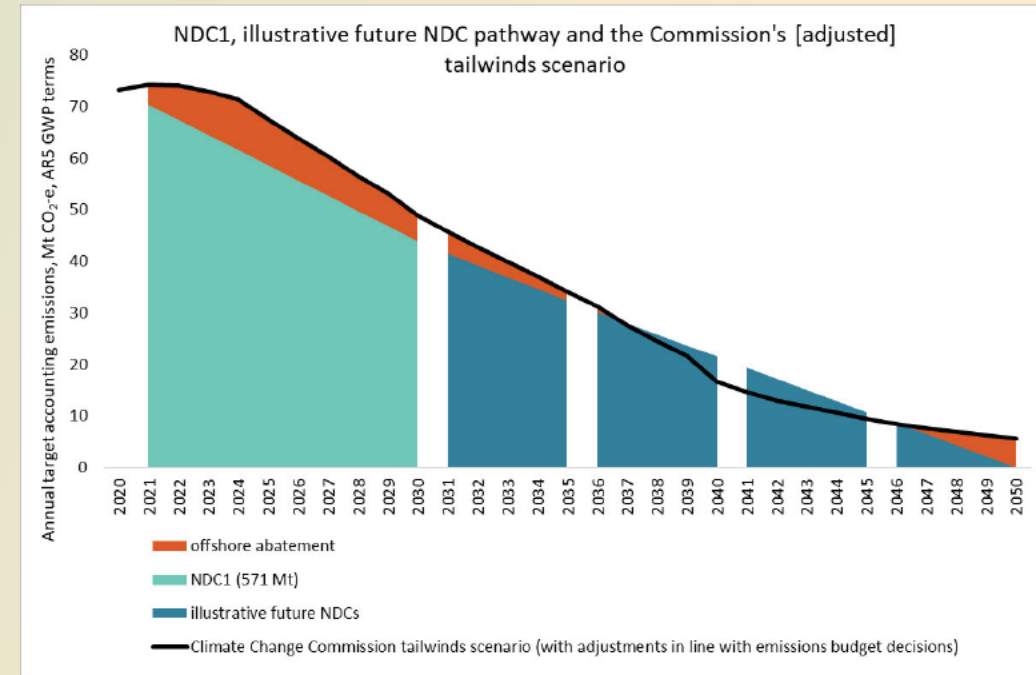
**Illustrative NDC pathway DOMESTIC BUDGETS ONLY
(Commission's Demonstration Path)**



An adaptive strategy that responds to changes has the potential to shift the policy balance as more domestic action is developed and implemented. The shift would reduce early reliance on international cooperation and could lead to a future more in line with the CCC's Tailwinds Scenario



**Illustrative NDC pathway HIGHER ACHIEVEMENT
(Commission's Tailwinds Scenario)**

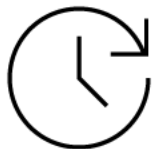


The NDC Opportunity

Careful consideration of climate change policy can change New Zealand's future for the better by creating economic growth, while avoiding the worst impacts of climate change

A 'comprehensive policy mix' is needed

Transitions are complex, long-term processes. To effect change, a mix of multiple policy levers must work together to target specific sectors or systems



Increasing Domestic Action

More domestic action can be developed to reach net zero by 2050

New options for domestic action to meet NDC1 and future NDCs, that reduces the need for international cooperation, will require extensive & transformative action to deepen and accelerate emissions reduction.

Indicative areas for increased domestic action include;

- greatly accelerated energy decarbonisation, for example by large-scale additional investment in new technologies and infrastructure
- rapid acceleration of emissions reduction in the other key high-emitting sectors, such as transport mode-shift or lower emission primary production practices and land use diversification
- working with New Zealand's most emissions intensive entities to develop bespoke pathways for decarbonisation.

Such actions require 'Big Calls'. These are the decisions that must be made over the next 18 months to ensure that policies and investments for inclusion in ERP2 are sufficiently ambitious.



Increasing Global Action

Increasing ambition and promoting sustainable development

The option under the Paris Agreement to use international cooperation toward NDCs has allowed New Zealand to set a more ambitious target that can contribute to global emissions reductions while also delivering co-benefits.

Paired with domestic action, international cooperation can deliver;

- greater global efforts towards the 1.5°C temperature goal by helping countries reduce emissions where they would be unable to do so themselves
- help to other countries in accelerating their sustainable development through additional financing
- assistance to countries through technical experience in emissions reductions including measurement, reporting and verification systems
- making best use of New Zealand expertise and creating opportunities for New Zealand technologies and the private sector overseas.

Climate change is a global problem that requires global solutions. International cooperation can contribute to this effort.

New Zealand's First Nationally Determined Contribution (NDC1)

Target of reducing net emissions to 50 percent below 2005 gross emissions levels by 2030

The NDC1 Challenge

New Zealand's NDC1 commitment is more ambitious than what can be achieved through domestic action alone

EB1 290 Mt (2022-2025)

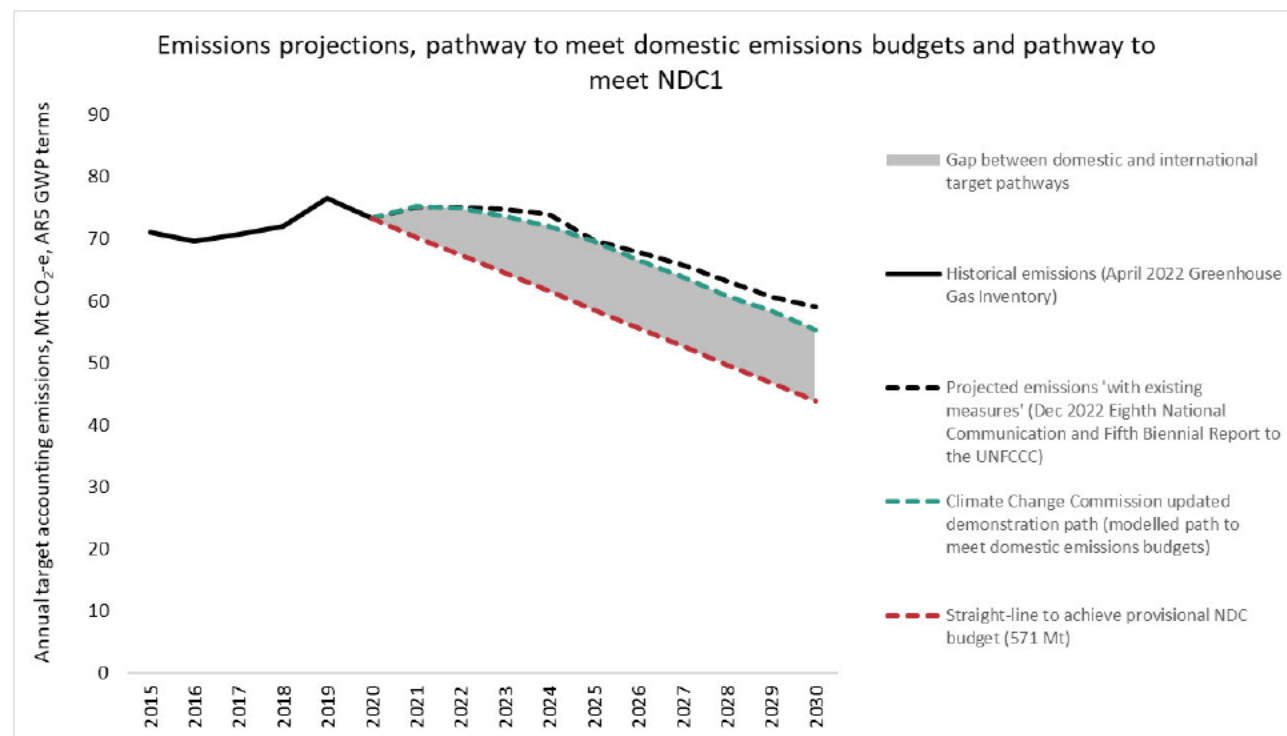
EB2 305 Mt (2026-2030)

EB3 240 Mt (2031-2035)

NDC 571 Mt (2020-2030)

Achieving New Zealand's legislated domestic emissions budgets leaves a further 100 million tonnes of CO₂e to meet the NDC

Even the Climate Change Commission's 'Tailwinds' Scenario (more impactful domestic action with considerably more optimistic assumptions around technology uptake and behaviour change) still leaves a gap of 75 MtCO₂e



There is a gap between the legislated domestic emissions budgets and the NDC1 target – but international cooperation can help

New Zealand will use a mix of both domestic action and international cooperation to meet NDC1



Domestic action is a priority

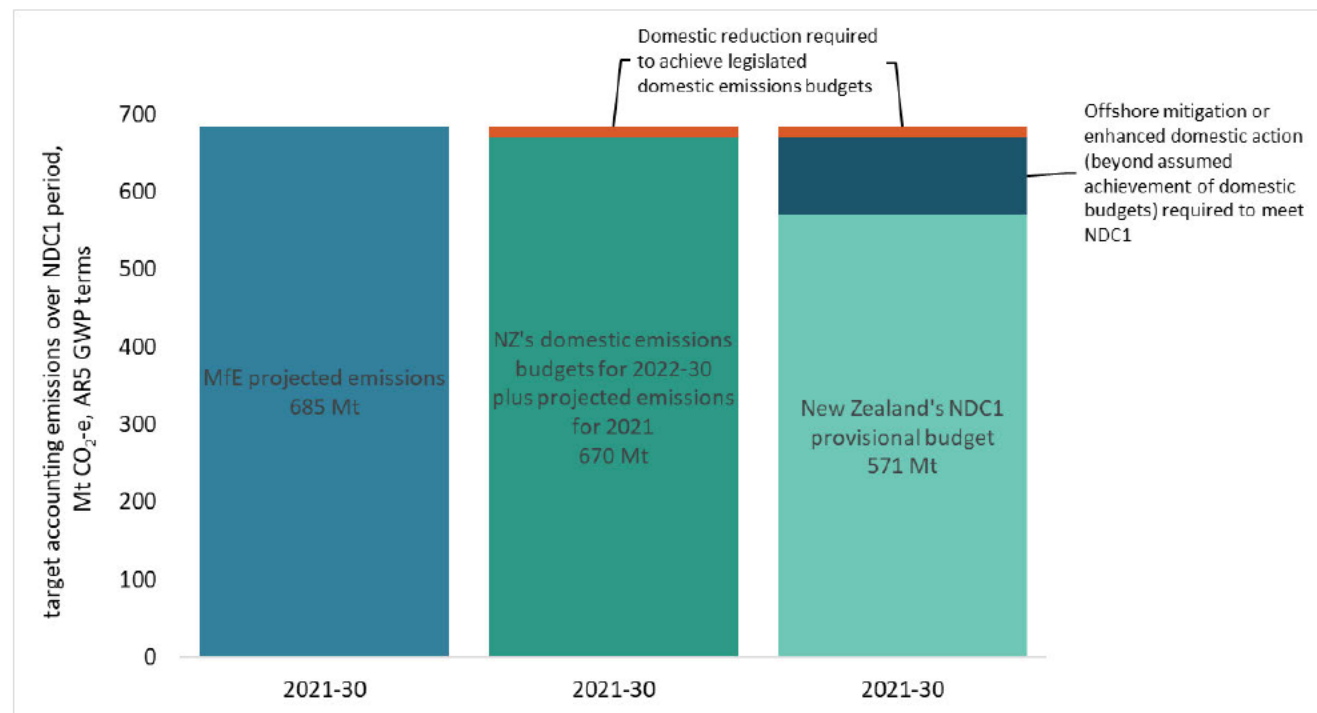
This is delivered through emissions reduction plans to meet legislated emissions budgets and drive additional action towards meeting the NDC

International cooperation will complement domestic action

This is delivered through a portfolio of options that can be drawn from as needed based on domestic delivery



The policy balance of domestic action and international cooperation can change over time as the effectiveness and costs and benefits of actions become clearer and new opportunities emerge.



The policy balance takes into account Climate Change Commission advice, including that: 1) the Government should adopt policies that allow it to overachieve the domestic emissions budgets 2) however attempting to achieve New Zealand's NDC1 through drastic domestic action well beyond its recommended emissions budgets would likely lead to severe social and economic costs on communities, people and businesses. International cooperation can help meet the NDC in consideration of these distributional impacts. The cost of using offshore mitigation from international cooperation is highly uncertain but has been estimated by CEFA analysis to range between \$3-24 billion over the period. The total fiscal cost of achieving NDC1 will depend not only on the costs of international emissions reductions, but also the direct and indirect fiscal costs of accelerating New Zealand's domestic transition.

A Dynamic Pathway

The right combination of domestic action and international cooperation depends on several factors

- The cost of abatement
- The availability of mitigation opportunities
- The social and economic impacts
- The short and long-term benefits to New Zealand



Domestic action



International cooperation

Examples of changing factors -

Domestic policy decisions that will influence the amount of domestic mitigation New Zealand is able to achieve and at what cost. This will have implications for the volume of international cooperation New Zealand may need.

The broader international context will also affect what sources of international cooperation New Zealand can procure and at what cost. This includes types of mitigation activities available. It also includes the choices and actions of other countries seeking to leverage international cooperation to achieve their NDCs.

Key factors and the operating context are expected to change over time. Such changes create a high degree of uncertainty on the path to meet the first NDC.

This is why a **Dynamic Pathway** that is adaptive to change is needed.



Who: Meeting the NDC requires oversight that can bring together domestic action and international cooperation.

When: There are four assessment points on the pathway to meeting NDC1 through the Biennial Transparency Reports (BTR) to the United Nations.

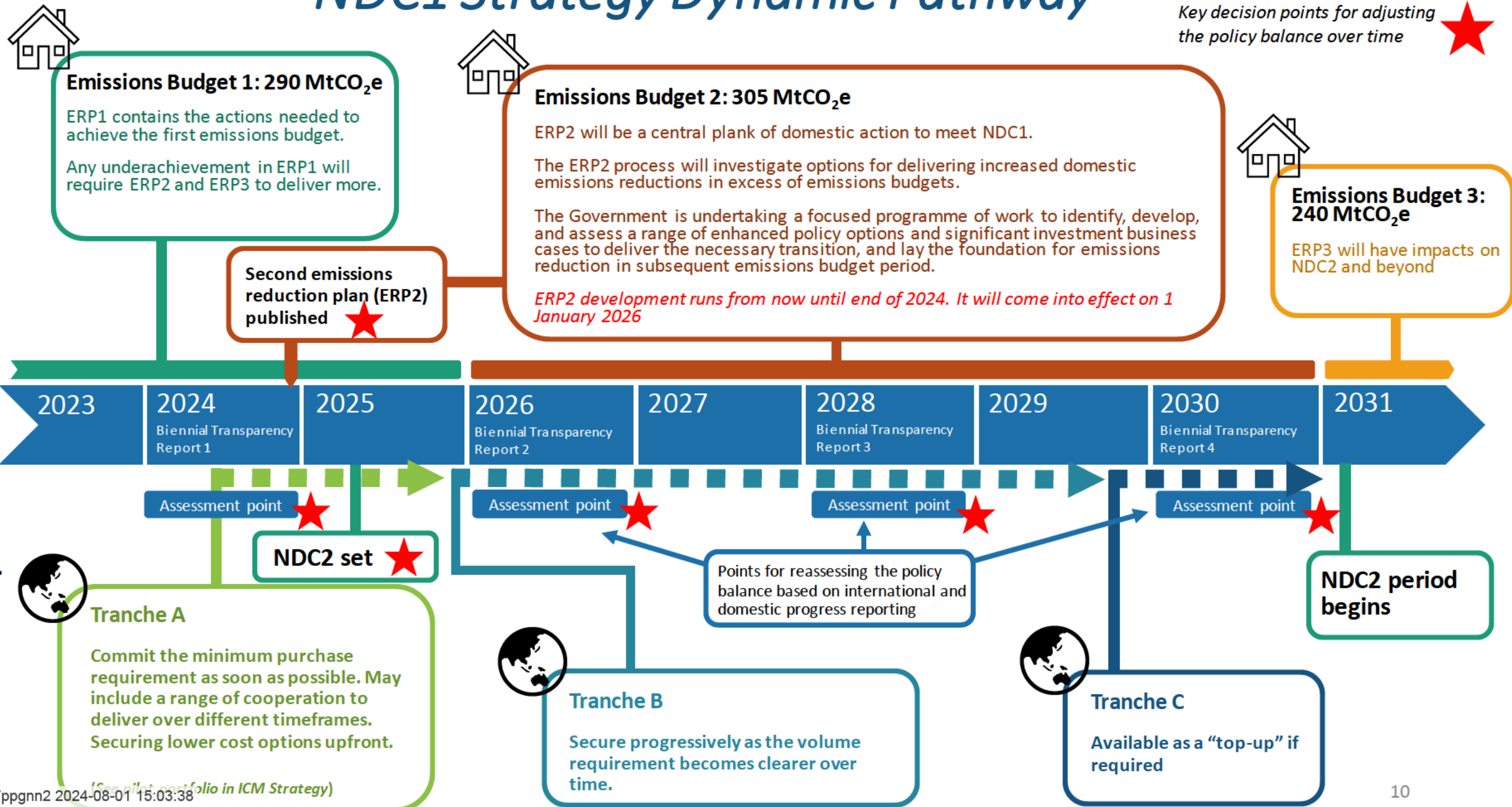
How: The assessment points enable decisions about the policy mix that can be adjusted for the NDC at that point in time.

NDC1 Strategy Dynamic Pathway

Key decision points for adjusting the policy balance over time

Domestic action

International cooperation



Government's Next Steps

The science is clear that the cost of inaction is high. Action now will help deliver the emissions reductions needed to set the world on the path to 1.5 °C. Action now will also set New Zealand up for long term success beyond 2030 and into 2050 for a net zero future.

We are three years into the NDC1 period and mitigation takes time to deliver.

We know there are costs associated with developing and implementing new policies and investments that provide the options needed to meet NDC1 and subsequent NDCs.

We also know that there will be economic opportunities and wider benefits from making the low-emissions climate-resilient transition – especially in a world where our key trading partners and global consumer preferences shift in sync, and technological innovation is driven by the climate crisis.

The New Zealand Government will;

- Ensure the ERP2 process can deliver increased domestic action and reduce New Zealand's emissions.
- Deliver additional mitigation through international cooperation through a portfolio of options that can be drawn from in tranches throughout the NDC period as needed.
- Reinforce existing climate change policy oversight functions and establish some new special-purpose functions across domestic action and international cooperation to ensure delivery, monitor progress and keep us on track.
- In the coming months, develop funding options for the cost of meeting the NDC. 9(2)(f)(iv)