Ministry for the Environment
Manatū Mō Te Taiao

PROACTIVE RELEASE COVERSHEET

Minister	Hon Simon Watts	**Portfolio**	Climate Change
Name of package	Proactive release of NDC2 documents	**Date to be published**	13 March 2025

NDC2 documents proposed to be proactively released				
#	***ID***	***Title***	***Date***	***Author***
1	CAB-502	Setting New Zealand's second Nationally Determined Contribution	18 December 2024	Cabinet Economic Policy Committee
1.1	CAB-502	Appendices to Cabinet paper	18 December 2024	Cabinet Economic Policy Committee
2	BRF-5005	Final rescoped section 5k request for advice on NDC2	11 July 2024	MfE
2.1	BRF-5005	Appendix 1 - Terms of reference for the Climate Change Commission's advice on NDC2	11 July 2024	MfE
2.2	BRF-5005	Appendix 2 - Letter to the Commission	11 July 2024	MfE
3	BRF-5347	Initial advice on NDC2 target level	14 October 2024	MfE
3.1	BRF-5347	Appendix 1 - New Zealand's national circumstances for consideration when setting NDC2	14 October 2024	MfE
3.2	BRF-5347	Appendix 2 - Aligning with 1.5°C and equity considerations for NDC2	14 October 2024	MfE
4	BRF-5540	Summary of the Climate Change Commission's advice on NDC2	25 October 2024	MfE
5	BRF-5582	Aide memoire - Cabinet paper on NDC2 process	6 November 2024	MfE
5.1	BRF-5582	Appendix 1 - Process for setting New Zealand's second Nationally Determined Contribution	6 November 2024	MfE
6	BRF-5534	Options for the NDC2 target level	7 November 2024	MfE
6.1	BRF-5534	Appendix 1 - Further technical details	7 November 2024	MfE
7	BRF-5596	Accounting approach for NDC2	5 December 2024	MfE
8	BRF-5664	Insights from NDC2 targeted engagement	5 December 2024	MfE
9	BRF-5665	Summary of key policy-relevant findings of the latest global evidence on climate change	5 December 2024	MfE

NDC2 documents proposed to be proactively released				
#	***ID***	***Title***	***Date***	***Author***
10	BRF-5695	Key findings from public feedback and market research on setting NDC2	11 December 2024	MfE
10.1	BRF-5695	Tokelau submission on NDC2	11 December 2024	MfE
10.2	BRF-5695	National Iwi Chairs Forum submission on NDC2	11 December 2024	MfE
10.3	BRF-5695	Market research report	11 December 2024	MfE

Information redacted **YES**

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 from the following documents as follows:

- Protect the privacy of natural persons - s9(2)(a)
- Maintain legal professional privilege - s9(2)(h)
- Withhold commercially sensitive information - s9(2)(b)(ii)
- Protect New Zealand's international relations - s6(a)
- Protect information given to New Zealand by officials of other countries - s6(b)(i)
- Protect the confidentiality of advice tendered by officials - s9(2)(f)(iv)
- Release of the information would inhibit the future exchange of free and frank opinions; and that inhibition would prejudice the effective conduct of public affairs - s9(2)(g)(i)
- The information is publicly available in its final version - s18(d)

Policy and Privacy

In-Confidence

Office of the Minister of Climate Change

ECO - Cabinet Economic Policy Committee

Setting New Zealand's second nationally determined contribution

Proposal

1 This paper seeks agreement to New Zealand's second nationally determined contribution, which covers the period 2031-35.

Relation to government priorities

2 This proposal relates to New Zealand's international obligations as a Party to the Paris Agreement on climate change.

Executive Summary

3 Nationally determined contributions (NDCs) are the main mechanism in the Paris Agreement to limit global temperature increases. New Zealand's first NDC (NDC1) covers the period 2021-30.

4 In 2021, the previous government decided to extend New Zealand's NDC1 commitment. The original NDC committed to reduce net emissions 30 per cent below gross emissions in 2005 by 2030. The previous government increased this commitment to 50 per cent.

5 This Government inherited this NDC1 commitment from the previous government. However, we inherited no viable plan to deliver the NDC. Officials advised the previous government that its extended NDC1 commitment could not be achieved domestically and would require extensive purchases of offshore mitigation e.g. carbon credits.

6 Despite this, the previous government allocated no funding for the estimated at $3 - $24 billion of offshore purchases needed to deliver its NDC1 commitment. I consider these actions by the previous government as irresponsible.

7 This Government remains committed to the Paris Agreement. Since the election, decisions made by this Government have helped reduce the NDC1 shortfall from 97Mt to 84 Mt.

8 Paris Agreement signatories including New Zealand are expected to communicate their second NDC (NDC2) for the period 2031-35 by 10 February 2025.

9 Under the Paris Agreement, each country's NDC should represent the "highest possible ambition" in light of national circumstances, informed by the outcomes of the latest Global Stocktake and with a view to achieving the purpose of the Paris Agreement. Successive NDCs should be a progression on previous NDCs. Factors to consider when determining an NDC commitment include feasibility, fiscal and economic costs, reactions of the public and the international community, and sufficiency against the Paris temperature goal.

10 In view of these factors and our commitments under the Paris Agreement, I propose to communicate an NDC2 of a 51 per cent to 55 per cent reduction in net emissions below 2005 gross emissions. This target range:

10.1 is consistent with our commitments under the Paris Agreement

10.2 can be achieved domestically without requiring purchases of offshore mitigation

10.3 aligns with existing commitments to domestic emissions budgets.

11 I consider a target range for NDC2 of 51 per cent to 55 per cent represents our highest possible ambition given our national circumstances. The range for NDC2 represents a relatively small progression over the 50 per cent reduction in NDC1. Other countries are likely to progress their NDC commitments by more. However, New Zealand's progression should be seen in the context an 9(2)(g)(i) NDC1 that meant New Zealand was more dependent on offshore mitigation to achieve its NDC than any other Paris Agreement signatory. 9(2)(g)(i)

12 This proposed NDC2 range aligns with existing commitment to Emissions Budget 3, which covers the same period. Officials estimate that achieving a reduction of 51 per cent to 55 per cent will reduce GDP by 0.1 per cent to 0.3 per cent in 2035, and cost the average household $80-$195 per year or about $1.50-$3.75 per week.[1]

Meeting the first NDC target presents a significant challenge

13 New Zealand is 9(2)(g)(i) on track for our domestic budgets for the same period. This is a direct result of setting an NDC1 that was significantly more ambitious than our domestic targets, presupposing a significant amount of offshore purchasing of emissions reductions.

14 New Zealand first tabled its intended NDC in March 2015. The intended NDC (INDC) was set as a 30 per cent reduction in net emissions below gross 2005 levels by 2030. In 2021, the Government changed the form of the target and increased the target to a 50 per cent reduction.[2] This increase to 50 per cent was done despite concerns from some agencies, and in the knowledge that even the existing 30 per cent target would necessitate significant offshore purchasing.

15 The previous government did not put in place the actions or funding necessary to meet its extended NDC commitment. Accordingly, this Government inherited no viable plan to achieve NDC1 and a 97Mt shortfall to the target. There is no realistic way to meet a 50 per cent reduction target domestically. As far as I am aware, no other Party to the Paris Agreement is expected to rely on offshore mitigation as a proportion of their respective NDC as much as New Zealand.

16 The previous government's actions have left this Government in an extremely challenging position. Despite this, the Government remains committed to NDC1 and has made significant progress over the past year. The Second Emissions Reduction Plan shows the projected NDC1 shortfall has fallen from 97 Mt to 84 Mt since the election.[3]

[1] Achieving a 51 per cent target will be the same cost that is already required to meet the third emissions budget.

[2] Note the 30 per cent headline target from the INDC in 2015 and the updated 50 per cent headline target submitted in 2021 are not directly comparable due to the change in target form. The INDC was based on a budget approach. If the 2015 INDC was communicated in the same way as the 2021 updated NDC1 (i.e as a point year target), it would have corresponded to an NDC1 target of ~39 per cent.

[3] Note that the updated gap also reflects that the provisional budget for NDC1 is being updated in New Zealand's first biennial transparency report to 579 Mt.

17 While NDC1 remains a challenge, we have the opportunity to set NDC2 that is ambitious but achievable and aligned to domestic emissions budgets.

Requirements of nationally determined contributions

18 The Paris Agreement aims to limit warming to well below 2°C and pursue efforts to limit global average temperature rise to 1.5°C above pre-industrial levels. NDCs are the main mechanism to achieve this long-term temperature goal.

19 New Zealand is required to communicate its second NDC to the UNFCCC by 10 February 2025 for the period 2031-35. Under the Paris Agreement, New Zealand has committed to prepare, communicate and maintain successive NDCs that:

19.1 represent a progression compared to the previous NDC

19.2 represent its highest possible ambition, reflecting its common but differentiated responsibilities and respective capabilities, in the light of national circumstances

19.3 be informed by the outcomes of the latest Global Stocktake, which assesses the collective progress towards achieving the Paris Agreement's purpose and goals

19.4 be set with a view to achieving the purpose of the Paris Agreement, including the temperature goal to limit warming to well below 2°C and pursue efforts to limit global average temperature rise to 1.5°C.

20 Climate change presents increasingly material risks for New Zealand. The 2023 Global Stocktake highlights that current efforts by all countries are not sufficient to meet the Paris temperature goal and that urgent action is needed. The IPCC sixth assessment cycle has scenarios which show that it remains possible to limit warming to 1.5˚C. This requires net zero CO_2 emissions around 2050, along with substantial reductions in other greenhouse gases in the near-term.

21 Notwithstanding our unique emissions profile[4], New Zealand would be the only developed country with a split-gas target. Uruguay is the only country to have previously set a split-gas target. Demonstrating progression from the current all gases NDC, would be challenging to achieve if the new NDC was not amenable to like for like comparisons.

Proposed NDC2

22 I propose New Zealand communicates a single headline target covering all sectors and all gases. New Zealand can support the headline target with more detailed information on the expected contributions of different gases, including for methane, to retain flexibility. The accompanying narrative can also continue to emphasise our national circumstances and the important context of biogenic methane in New Zealand's emissions profile. This is consistent with how New Zealand has previously communicated its NDC.

23 The Paris Agreement requires NDC2 to represent New Zealand's contribution to the global 1.5°C effort, and our "highest possible ambition". However, determining highest possible ambition is a political judgement in balancing acceptability, feasibility, and affordability. Principles that can help us navigate this tension are:

23.1 **NDC1 is our starting point**: the Paris Agreement requires NDC2 to represent a progression compared to NDC1, which makes 50 per cent a starting point.

[4] Which includes heavy renewable generation, nearly half of emissions from agriculture, and a large land area suitable for forestry

23.2 **Align our domestic and international targets**: NDC2 will cover the same period as our third domestic emissions budget (EB3), so alignment creates coherence between our domestic and international climate targets and improves deliverability of both,

23.3 **Contribution to the global effort**: The stronger the ambition of the target, the stronger the alignment with the 1.5°C goal. However, the target needs to be ambitious but realistic to achieve, given New Zealand's national circumstances.

24 To support consideration of how different target level options relate to New Zealand's highest possible ambition, I consider at least three objectives are relevant, including:

24.1 NDC2 can be feasibly implemented and support New Zealand's long-term transition and 2050 target;

24.2 NDC2 is considered a sufficient contribution to the Paris Agreement temperature goal;

24.3 The fiscal and economic costs of meeting NDC2 are acceptable.

25 Officials have provided advice on options for NDC2 and their consistency with the above objectives. These range from 51 per cent to 65 per cent, as summarised in Appendix 1.

NDC2 can be feasibly implemented and support New Zealand's long-term transition and 2050 target

26 'Feasibility' is a subjective term. We need to determine what target we judge could be feasibly and credibly delivered based on current evidence.[5]

27 A 51 per cent target would allow emissions over the NDC2 period to align closely with the current EB3, which is set at 240 Mt.[6] This would be the most feasible to implement given the Minister of Climate Change is already legally required to ensure emissions reduce to this level domestically. Based on current projections, achieving a 51 per cent target will require closing the 9 Mt gap (3.8 per cent of the EB3 budget) that remains to meet EB3. Addressing the remaining gap will be the focus of the third emission reduction plan (ERP) which is due in 2029.

28 Achieving higher NDC2 target options will require an overachievement of EB3, or offshore mitigation. A 55 per cent target would require EB3 to be overachieved by 10 Mt (or 4.2 per cent of EB3). There is uncertainty about what levels of emissions reduction will be feasible in the 2031--35 period. Technology development and uptake in all sectors will be important. This Government is investing heavily in agricultural technology and this, in combination with an incentive to support uptake, represents a promising area for emissions reductions.

29 Consequently, I see merit in setting NDC2 as a range to signal greater ambition while still providing flexibility for New Zealand's overall delivery to respond to evolving national circumstances.[7] I do not expect a range target would significantly restrict flexibility in

[5] This analysis draws from the latest projections of future emissions, and although projections and historical emissions are subject to change, they represent our best understanding at this point in time.

[6] Note the Commission recently recommended tightening the current EB3 to 222 Mt which would equate to a 58 per cent NDC2 target. If the Government decides to adjust EB3 in future, this could require a corresponding update to NDC2 to ensure it remains aligned to domestic budgets (noting NDCs can be updated at any time to be more ambitious).

[7] The Paris Agreement is permissive about how NDCs are expressed, and some countries have used ranges for their NDC1 commitments, including the USA and Canada.

setting future NDCs, if the range approach is grounded in genuine uncertainty about what may be feasible.

30 My overall strong preference is to align our international targets with our domestic budgets as much as possible. This simplifies targets and avoids relying on offshore purchasing. However, I propose to retain the option to use offshore mitigation in the future where it is more affordable than domestic alternatives and in the national interest. This represents a change in approach where offshore mitigation was necessary to achieve the NDC.

NDC2 is considered a sufficient contribution to the Paris Agreement temperature goal

31 There is no prescribed way to determine whether NDC2 represents a sufficient contribution to the Paris temperature goal. However, the IPCC recommends that "fair share" be considered in the light of equity principles such as equality, capacity, responsibility, and the right to sustainable development.

32 The strength of alignment with 1.5°C under these equity principles increases as the target increases. New Zealand's national circumstances guide sufficiency. Circumstances include our small population, high share of renewable electricity generation, and reliance on primary industries as reflected in New Zealand's unique emissions profile.

6(a) [redacted]

The fiscal and economic costs of meeting NDC2 are acceptable

34 The cost of meeting NDC2, and where these costs are borne, depends on whether it is intended to be met through domestic action, through offshore mitigation, or a mix of both.

35 Assessment of costs builds directly on MfE's modelling for the second emissions reduction plan (ERP2). As there is inherent uncertainty in modelling future outcomes, figures should be considered indicative. Modelling suggests the economy will continue to grow steadily under all the possible NDC2 options, although growth will be slightly lower than it would otherwise be. Modelling covers the costs of delivering the target, but does not cover co-benefits from reducing emissions.[8]

36 Officials have modelled the GDP impact of different NDC2 targets. Table 1 shows the estimated real GDP impacts (in 2023 dollars) of different targets relative to current emissions projections. There is an approximately 9 Mt CO_2e gap to EB3 and the 51 per cent NDC2 target. Addressing the gap to EB3 will be the focus of the third emissions reduction plan in 2029. Alignment of the proposed NDC2 target range with EB3 moderates the additional costs of NDC2.

[8] For example, the Commission's advice on NDC2 suggests co-benefit over the NDC2 period as being between $2.3 billion and $12.1 billion, depending on the scenario.

Table 1: Economic costs of meeting NDC2

	Percent change in real GDP - 2035		$ change in real GDP over NDC2 period, 2023 dollars	
	Relative to current projections	Relative to meeting EB3	Relative to current projections	Relative to meeting EB3
Aligning domestic and international targets				
Meeting a 51% target & closing the gap to EB3*	-0.1%	-	-$1.8 b	-
Additional cost of achieving higher NDC targets				
Meeting a 55% target	-0.3%	-0.1%	-$3.7 b	-$1.8 b
Meeting a 60% target	-0.6%	-0.4%	-$7.6 b	-$5.8 b
Meeting a 65% target	-0.9%	-0.8%	-$12.4 b	-$10.5 b

Source: Principal Economics, Ministry for the Environment

** Note that the economic impacts of achieving a 51% NDC2 are the same as for meeting EB3*

37 It is extremely important that the economic impacts of the NDC2 commitment is carefully considered and communicated. At 51 per cent, officials estimate no impact on households over and above the existing commitment to EB3 (which adds annual costs of around $80 per household per annum). At 55 per cent, NDC2 would add cost of $115 per household per annum. More detailed analysis of the costs of various options is included in Appendix 3.

Proposed NDC2 target

38 I recommend New Zealand's NDC2 is a range target of 51 per cent to 55 per cent reduction of net emissions below our gross 2005 level by 2035. I consider this target range is ambitious but achievable and represents our highest possible ambition given our national circumstances and respective capabilities.

39 Consistent with NDC1 and the the Kyoto Protocol, NDC2 is expressed in gross-net terms. This means the target in 2035 is calculated as a percentage reduction of net emissions below 2005 gross emissions levels. This reflects New Zealand's national circumstances where there was a high level of removals in the 2005 base year resulting from historical actions to establish new forests that occurred well before New Zealand had international mitigation commitments.

40 I recommend that NDC2 is set as a point-year target. This is a change from NDC1 which is managed as a budget.[9] A point-year approach simplifies New Zealand's international and domestic target architecture and avoids duplication of monitoring and reporting. While I am comfortable that this approach is appropriate, some stakeholders could criticise the change if they perceive it as less ambitious. More detail on this and gross-net accounting is provided in Appendix 4.

41 Some stakeholders have suggested a split-gas target for NDC2, similar to targets in domestic legislation. The Paris Agreement does not expressly preclude a split-gas target However, I consider this is not in New Zealand's best interest because a split-gas target reduces our economic flexibility by preventing the overachievement of one target to offset challenges achieving the other.

42 Few countries have yet signalled their intentions for their own NDC2.[10] Appendix 2 outlines NDC1 and NDC2 commitments from selected key trading partners. Where relevant, these have been converted to a 2005 base year to make comparisons easier, but as these are nationally determined based on national circumstances and can utilise different accounting approaches, caution should be applied when comparing between countries.

[9] NDC1 is managed as a multi-year emissions budget, where the provisional budget is 579 Mt for the period 2021-2030. This means NDC1 is met if overall emissions (including offshore mitigation) over the period is below the budget.

[10] The UK has announced a target of 81 per cent below 1990 levels, which is equivalent to 78 per cent below 2005 levels. Brazil has announced a target of 59-67 per cent below 2005 levels. UAE has announced a target of 47 per cent below 2019 levels.

While there is high uncertainty, based on informal discussions at officials' level, current expectations appear to be that New Zealand and other developed countries will table ambitious targets.

Implementation

43 I am required to communicate New Zealand's NDC2 to the UNFCCC by 10 February 2025. Appendix 5 provides a draft of New Zealand's NDC2 submission, which includes a technical appendix with information to facilitate clarity, transparency and understanding of our NDC2. I propose that officials revise the draft NDC2 submission to reflect Cabinet's decisions, and that I approve these, before 10 February 2025.

44 New Zealand is already reducing emissions. The implementation of ERP2 from 2026 will help put New Zealand on a path to achieving NDC2. Further mitigation action will be needed, and this will be considered when developing the third emissions reduction plan in 2029, which covers the same period as NDC2.

Cost-of-living Implications

45 As part of the options analysis, officials have modelled the potential impact of meeting NDC2 on household costs – see paragraph 40. Appendix 3 contains detailed economic analysis broken down by household decile, region and sector. As noted, this modelling is indicative and there is a wide range of uncertainties. The precise extent of cost-of-living impacts will depend on future policy decisions about how to meet the NDC2 target and will be assessed at that time.

Financial Implications

46 Setting NDC2 will have future fiscal consequences. The size will depend on a range of factors including: the target level, future global and national economic and social trends, and technological development and uptake. While funding is not immediately required, these will need to be considered as part of the development of the third emissions reduction plan that is due in 2029.

47 The financial implications of achieving a given NDC2 target level will broadly depend on whether it is met through domestic effort, use of offshore mitigation, or a combination of both. A domestic focused approach is expected to have more direct economic impacts on GDP. These impacts would be expected to flow through to the fiscal position as lower levels of economic activity would to lead to reductions in tax revenue. Any direct Government purchases of offshore mitigation would drive greater direct fiscal impacts.

Legislative Implications

48 There are no legislative implications.

Impact Analysis

Regulatory Impact Statement

49 The proposals do not involve the potential introduction of new legislation, or changes to or the repeal of existing legislation, and therefore do not require impact analysis.

Climate Implications of Policy Assessment

50 The Climate Implications of Policy Assessment (CIPA) team has confirmed the CIPA requirements do not apply to this proposal as setting a target does not yet have a direct

or quantifiable impact on emissions. Setting NDC2 will likely lead to more emissions reductions as actions are developed and implemented to meet the target. The preferred option for NDC2 is a target range of 51 to 55 per cent. The start of this range (51 per cent) broadly aligns with EB3 meaning there will be no additional reductions required to achieve EB3, while achieving the top of the range (a 55 per cent) would require an overachievement of EB3 by 10 Mt. It is not possible to quantify this impact until the target level is finalised and specific actions are developed. Where relevant, analysis of the impact of these measures and actions will be undertaken and disclosed to Cabinet as proposals are advanced.

Population Implications

51 Officials have modelled the potential impact of meeting NDC2 on different household income levels. This is outlined in Appendix 3. The population implications on a NDC2 target will depend on the policies that the Government put in place to achieve it.

Human Rights

52 The proposals in this paper are consistent with the New Zealand Bill of Rights Act 1990 and the Human Rights Act 1993.

Use of External Resources

53 Economic modelling of domestic impacts was undertaken by a consortium of specialist modellers led by Principal Economics. This was funded through repurposing some of the existing contract to deliver economic modelling for ERP2 and a contract extension 9(2)(b) funded from the Ministry for the Environment's (MfE) budget.

54 An international climate specialist was contracted to provide the draft *information for clarity transparency and understanding* report for NDC2, Appendix 5 to this paper. This 9(2)(b)(ii) was funded from MfE's budget.

55 MfE contracted The Research Agency to research the public's views on the extent to which NDCs should be achieved domestically, and what role international cooperation should play. This 9(2)(b)(ii) was funded from MfE's budget.

Consultation

56 Feedback from the public, targeted engagement with sector bodies and Treaty partners has informed this paper. In addition, officials have engaged with Tokelau to understand their interest and views. This reflects that Tokelau is not a party to the Paris Agreement in its own right, but is a self-governing territory within the Realm of New Zealand, and is particularly vulnerable to climate change. Appendix 6 provides a summary of this feedback.

57 The following agencies were consulted in the development of this Cabinet paper: Ministry for Primary Industries, the Treasury, Ministry of Business, Innovation and Employment, Ministry of Transport, the Department of Conservation, Te Puni Kōkiri and the Ministry of Foreign Affairs and Trade. The Department of the Prime Minister and Cabinet has been informed. Feedback has been considered and incorporated as appropriate.

58 The Climate Priorities Ministerial Group (CPMG) reviewed and discussed this paper on 9 December 2024.

59 The Commission delivered its advice on New Zealand's NDC2 target in early November 2024. The Commission advised that New Zealand could achieve greater net emissions

reductions in NDC2 than in NDC1 through domestic action alone. Compared to NDC1, the Commission found that under certain assumptions, domestic action could contribute to emissions reductions of up to 69 per cent[11] below 2005 levels by 2035.

Communications

60 I intend to announce the NDC2 target in February 2025, before the February 10 deadline.

Proactive Release

61 I intend to proactively release this paper and associated Cabinet committee papers and minutes once I have communicated NDC2 to the UNFCCC and the public.

Recommendations

The Minister of Climate Change recommends that the Committee:

1 **note** that New Zealand's second nationally determined contribution (NDC2) under the Paris Agreement must be communicated by 10 February 2025

2 **note** that 2023 Global Stocktake found that Parties to the Paris Agreement are not collectively on track towards the Paris Agreement temperature goal and more urgent action is needed

3 **note** that, under the Paris Agreement, New Zealand has committed to prepare, communicate and maintain successive NDCs that:

3.1 represent a progression compared to the previous NDC

3.2 represent each country's highest possible ambition, reflecting its common but differentiated responsibilities and respective capabilities, in the light of national circumstances

3.3 be informed by the outcomes of the latest Global Stocktake which assesses the collective progress towards achieving the Paris Agreement's purpose and goals

3.4 be set with a view to achieving the purpose of the Paris Agreement, including the temperature goal to limit warming to well below 2°C and pursue efforts to limit global average temperature rise to 1.5°C.

4 **note** that determining New Zealand's highest possible ambition is a political judgement that balances the strength of New Zealand's contribution to the global temperature goal, acceptability from stakeholders and the international community, feasibility, and affordability considering New Zealand's national circumstances.

5 **agree** that New Zealand's NDC2 will be a range target of 51 per cent to 55 per cent reduction of net emissions below our gross 2005 level by 2035

6 **note** that this target will ensure we meet our obligations as part of the Paris agreement, is a progression from the highly ambitious first NDC and aligns with our domestic emissions budget for the same period.

7 **agree** that New Zealand's NDC2 will be formally communicated as a point year target

[11] Taking the point-year method results from the Commission's advice.

8 **agree** that NDC2 will be accounted for on a gross-net basis

9 **note** that the Minister of Climate Change intends to publicly announce the NDC2 target in February 2025 and formally communicate it to the UNFCCC shortly after to meet the February 10 deadline

10 **agree** that officials will prepare the final version of New Zealand's NDC2 submission based on the attached draft, revised as necessary to reflect Cabinet's decisions and any minor editorial changes

11 **authorise** the Minister of Climate Change to approve the final version of the NDC2 submission for communicating to the UNFCCC.

Authorised for lodgement

Hon Simon Watts
Minister of Climate Change

Document 1.1

Appendix 1 – Summary of options analysis

Objective	Criteria	51% target Indicative NDC2 budget: 240 Mt Reductions beyond EB3: 0 Mt	55% target Indicative NDC2 budget: 230 Mt Reductions beyond EB3: 10 Mt	60% target Indicative NDC2 budget: 217 Mt Reductions beyond EB3: 23 Mt	65% target Indicative NDC2 budget: 204 Mt Reductions beyond EB3: 36 Mt
NDC2 is considered a sufficient contribution to the Paris Agreement temperature goal by key partners and the global community	**Overall assessment of this objective 1**	Less likely to be considered sufficient → More likely to be considered sufficient			
	Aligned with IPCC equity principles for sharing 1.5°C global effort	Low alignment → Moderate alignment (strong alignment from ~80% +)			
	Comparison to IPCC global average reductions required to achieve 1.5°C (if all countries took equal effort)	Consistent with average global reductions required for 1.5°C (below expectation of NZ as a developed country).	Above global average but potentially below expectation of NZ as a developed country.	Well above global average and likely more in line with expectation of NZ as a developed country.	Well above global average and more in line with expectation of NZ as a developed country.
	6(a)				
NDC2 can be feasibly implemented and support New Zealand's long-term transition and 2050 target	**Overall assessment of objective 2**	Most feasible to implement → Challenging – feasible only with significantly enhanced action			
	Feasible through domestic action	Current projections have emissions exceeding EB3 by 9 Mt. There is time for new policies to be identified that could close this gap. Also achievable under the Commission's low systems and low technology change scenario.	Requires new policies to drive additional abatement or favourable technological developments. Higher target options will require more significant changes. Also, potentially achievable in Commission's EB4 demonstration path and under assumptions of high systems and high technology change scenario, but not under assumptions of low systems and low technology change.		
	Feasible through offshore mitigation	Not necessary – EB3 is required to be met through domestic action.	Gap between EB3 and NDC target technically feasible to be met through offshore mitigation.		
The fiscal and economic costs of meeting NDC2 are acceptable	**Overall assessment of objective 3**	Less costly → More costly			
	Anticipated total cost	**Target must be met domestically.** No additional cost beyond the cost of meeting EB3.	**If met domestically:** 0.1% reduction in GDP in 2035 ($1.8 billion over NDC2 period) **If met through offshore mitigation:** $0.5 - $1.4 billion	**If met domestically:** 0.4% reduction in GDP in 2035 ($5.8 billion over NDC2 period) **If met through offshore mitigation:** $1.1 - $3.2 billion	**If met domestically:** 0.8% reduction in GDP in 2035 ($10.5 billion over NDC2 period) **If met through offshore mitigation:** $1.8 - $5.1 billion

Appendix 2 - Comparison of countries' NDCs

Information as at 11 December 2024. Formal information on countries' progress made in implementing their NDC1 is due by 31 December 2024. Submission of countries' NDC2 are due in early February 2025.

Country	Accounting approach	NDC1				6(b)(i)
		NDC1 target	Progress in reducing domestic emissions	Indicated use of offshore mitigation to achieve NDC?	6(b)(i)	6(b)(i)
Australia	net-net	43% below 2005 levels by 2030	Reducing net emissions from 2006	No. Plans to meet NDC1 domestically.	6(b)(i)	6(b)(i)
United States	net-net	50-52% below 2005 levels by 2030	Reducing since peaking in 2007	No. Plans to meet NDC1 domestically.	6(b)(i)	6(b)(i)
United Kingdom	net-net	At least 68% by 2030 compared to 1990 levels (~63% compared to 2005 levels)	Achieved 3rd carbon budget 38% reduction on 1990 levels. NDC target is more ambitious than carbon budgets	No. Plans to achieve NDC1 domestically.	6(b)(i)	6(b)(i)
European Union	net-net	At least 55% by 2030 compared to 1990 levels (~50% compared to 2005 levels)	Reducing since 1990to reach a 32.5% reduction in 2022	No. Plan to meet NDC1 domestically. May sell mitigation through the EU ETS.	6(b)(i)	2035
Singapore	net-net	36% below 2005 levels by 2030	Emissions are trending slowly upward. Will peak and decline	Yes. Facilitating private sector access to international markets 16 MoUs, 2 legally binding agreements. Requiring 20 Mt.	6(b)(i)	
Japan	gross-net	46% below 2013 levels by 2030	Trending down since approximately 2013	Yes and has put in place the Joint Crediting Mechanism	6(b)(i)	

* Based on the UK Climate Change Committee's recommendation for NDC2. Note that this recommendation includes emissions from international aviation and shipping (IAS) which are not yet included in the UK's GHGI. Excluding emissions from IAS the NDC2 target would be 78% from 1990 (which would convert to 74% if expressed using 2005 as the base year).

Appendix 3 – Additional economic modelling results (households, sectors and regions) and estimated cost of offshore mitigation

1 The tables below have further information on the impacts of different NDC2 targets on households, sectors and regions. These costs have been estimated using the same computable general equilibrium (CGE) model used for ERP2. In all scenarios, the starting point is EB3 and no additional policies are imposed beyond those in ERP2. Emissions reductions are achieved by varying emissions shadow prices to drive abatement technology uptake. Technology assumptions are consistent across all scenarios.

2 The modelling assumed that removals from forestry would be the same as projected under ERP2. Increased removals from relatively cheap exotic forestry could reduce the effort and cost required from other parts of the economy, although exotic forestry comes with other trade-offs. Similarly, biogenic methane was also assumed to be the same as projected for ERP2; different assumptions about methane would change how the impacts of different NDC2 targets affect different parts of the economy.

3 As with all modelling, this work has limitations and there are many uncertainties. A key uncertainty is technological developments – if emissions reduction technologies become available sooner than expected (such as a methane inhibitor for dairy cows) or at a lower cost (such as significant price reductions for EVs) then the cost of a given level of emissions reductions would be lower.

4 In addition, the modelling does not include any co-benefits such as from reduced air pollution from decarbonising transportation. The Commission's advice on NDC2 suggests this co-benefit can be substantial – they estimated this additional benefit over the NDC2 period as being valued between $2.3 billion and $12.1 billion, depending on the scenario.

Modelling results

5 Table 1 shows the estimated impact of targets on annual household expenditure in 2035, assuming the targets are met through domestic abatement.

Table 1: Estimated impact in 2035 on annual household expenditure (difference from EB3 projections)

	55% target	60% target	65% target
Household expenditure (2023 dollars)			
Decile 1 household	$60	$145	$280
Decile 2 household	$70	$170	$330
Average household	$115	$280	$540
Decile 9 household	$160	$395	$765
Decile 10 household	$200	$480	$935
Percent of household expenditure (%)			
Decile 1 household	0.07	0.17	0.34
Decile 2 household	0.17	0.41	0.79
Average household	0.14	0.33	0.65
Decile 9 household	0.13	0.33	0.63
Decile 10 household	0.12	0.29	0.55

Source: Principal Economics, Ministry for the Environment

6 Table 2 shows changes in key macroeconomic variables in 2035. It shows that achieving more ambitious NDC2 targets generally results in lower GDP, household consumption and employment.

Table 2: Estimated impact in 2035 on key economic variables

	55% target	60% target	65% target
Real GDP (% deviation in 2035)	-0.13%	-0.42%	-0.76%
Real household consumption (% deviation in 2035)	-0.02%	-0.09%	-0.19%
Employment (% deviation in 2035)	-0.20%	-0.54%	-0.99%

Source: Principal Economics, Ministry for the Environment

7 Table 4 below estimated the impact of different targets on sectors in 2035. This shows for most sectors, output is lower than when compared to New Zealand's current emission pathway, particularly agriculture, manufacturing and mining as these sectors act to reduce their long-lived gas emissions. Slightly slower growth also spills into other sectors of the economy, such as construction and services. The main exception is electricity generation – as the economy decarbonises, the increased demand for electricity induces increased output from the electricity generation sector.

Table 3: Estimated impact in 2035 on sector output (% difference from EB3 projections)

	55% target	60% target	65% target
Agriculture	-1.3	-3.5	-6.7
Construction	-0.5	-1.2	-2.0
Electricity generation	2.6	7.5	14.8
Forestry	0.1	0.4	0.8
Manufacturing	-0.8	-1.7	-2.9
Mining	-0.4	-1.9	-3.5
Services	-0.2	-0.6	-1.0
Utilities	1.7	5.1	10.0

Source: Principal Economics, Ministry for the Environment

8 Table 4 below estimated the impact of different targets on regions in 2035. This shows for all regions except for Bay of Plenty, output is lower than when compared to New Zealand's current emission pathway. The greatest impact fall on Taranaki, Gisborne, and the West Coast. The Bay of Plenty increases output because it is less impacted by declines in most affected sectors, and it benefits from increased electricity generation (particularly geothermal).

Table 4: Estimated impact in 2035 on regional output (% difference from EB3 projections)

	55% target	60% target	65% target
Northland	-0.4	-1.0	-1.7
Auckland	-0.3	-0.6	-1.1
Waikato	-0.4	-1.0	-1.7
Bay of Plenty	0.1	0.3	0.7
Gisborne	-0.5	-1.3	-2.5
Hawkes Bay	-0.4	-0.9	-1.7
Taranaki	-0.4	-1.0	-1.9
Manawatu/Wanganui	-0.4	-0.9	-1.7
Wellington	-0.2	-0.4	-0.8
Tasman	-0.4	-1.1	-2.1
Nelson	-0.3	-0.7	-1.3
Marlborough	-0.3	-0.7	-1.3
Canterbury	-0.3	-0.9	-1.6
West Coast	-0.4	-1.1	-2.0
Otago	-0.3	-0.8	-1.5
Southland	-0.3	-0.9	-1.6

Source: Principal Economics, Ministry for the Environment

Estimated cost of offshore mitigation

9 Table 5 below shows the estimated cost of offshore mitigation to meet the gap between EB3 and different target options. These estimates are based on the possible costs of offshore mitigation during the NDC2 period.

Table 5: Estimated cost of meeting NDC2 targets through offshore mitigation

Impact if achieved by offshore mitigation only*				
Additional mitigation above EB3	0 Mt	9.7 Mt	22.7 Mt	36 Mt
Cost range between scenarios (Present Value, 2023$ billion)	$0	$0.5 - $1.4 b	$1.1 - $3.2 b	$1.8 - $5.1 b

Source: Ministry for the Environment

** Cost assumes the entirety of ambition above EB3 is met entirely through purchasing offshore mitigation.*

Appendix 4 – Choice of accounting methodology and target form

Gross-net accounting methodology

1 The proposed NDC2 emissions reduction targets are expressed on a gross-net basis, meaning they commit New Zealand to reduce its net emissions in the target year relative to gross emissions in the reference year. This is the basis which New Zealand's NDC1 target is expressed. It is also the basis on which New Zealand stated and reported against its international emissions reduction target under the Kyoto Protocol in 2008-2012, and in its target under the Convention in the period 2013-2020.

2 This approach for NDC1 was a conscious choice that reflected New Zealand's national circumstances to count and provide an incentive for emissions-reducing actions. Gross-net target setting and accounting recognises that countries with significant forestry removals in the reference year, such as New Zealand, would be significantly disadvantaged because it would have to continue planting trees just for its net emissions to remain constant, whereas a country with no removals in the base year would have to take no additional action for its emissions to remain constant. Targets that represent comparable effort between countries would therefore appear weaker in terms of headline rates of reduction for countries with high rates of removals in the base year, which is challenging to communicate internationally. As the base year remains the same for NDC2, this rationale remains appropriate.

3 Monitoring and demonstrating achievement of New Zealand's international emissions reduction goals applies a target accounting approach. For NDC1, target accounting includes all gross emissions estimates as reported in New Zealand's Greenhouse Gas Inventory (the Inventory) but treats the land use, land-use change and forestry (LULUCF) sector of the Inventory differently: only eligible forestry activities that have occurred since 1990 are accounted for. These activities include emissions from deforestation activities, the net removals from newly established forests (i.e. post-1989) up until they reach their long-term average carbon stocks and emissions or removals from pre-1990 forests where they result from changes in business-as-usual forest management activities. This approach implicitly includes the delayed emissions that occur from harvested wood products and excludes emissions or removals occurring on non-forest land (other than that subject to a deforestation activity since 1990), for which data are currently limited and have high uncertainty. This accounting approach formed the basis for the Commission's advice on domestic emission budgets, NDC1 and the potential domestic contribution to NDC2.

4 An alternative way to account for New Zealand's NDC target would be on a net-net basis that considers all land-based emissions and removals, including removals occurring in forests planted before 1990. It can be argued that accounting on a net-net basis is more consistent with the approach taken by the IPCC in its 2018 Special Report and Sixth Assessment Report (AR6) that provided global pathways for reaching the 1.5 ºC goal, because the IPCC used a global net-net calculation for the global pathways. However, the methodology to determine net carbon dioxide emissions in these global pathways is not identical to that used in country inventories.

5 If the Commission had used a net-net approach in its advice on NDCs, this would have resulted in a different recommendation regarding the NDC1 emission target and different advice on what potential headline NDC2 targets could be achieved domestically. In short, this is because if the emissions figure for the baseline year is calculated on a net basis (i.e. taking into account all LULUCF sector emissions and removals in the baseline year), there is a lower floor from which further reductions must be made. Accounting towards such a net-net target would also need to include emissions and removals on forest land established prior to 1990.

6 Officials have considered whether a net-net approach should be used and, on balance, recommend that the gross-net target formulation and target accounting method be used because:

6.1 New Zealand's contribution towards global efforts ultimately depends only on the actions New Zealand takes to reduce emissions domestically and offshore, not on how it expresses its target.

6.2 How the NDC2 target is expressed (gross-net or net-net) is a matter of communication as it does not change what constitutes our national ambition and contribution to global efforts.

6.3 The purpose of the target accounting is to drive action, so it is appropriate to adopt it as a measurement framework designed to count (and provide an incentive for) emissions-reducing actions. In New Zealand's case, there are large business-as-usual changes (e.g. through planting and harvest cycles) in the level of emissions and removals from production plantation forests that if not "factored out" would dominate net emissions trends and delink the measurement framework from the results of later actions.

6.4 The target accounting approach is consistent with three objectives, to provide: (1) a continued incentive to establish new forests (2) a disincentive to deforest (3) an incentive to increase carbon stocks of pre-1990 forest above BAU.

6.5 Gross-net target setting and accounting recognises that countries with significant removals in the reference year – such as New Zealand - would be significantly disadvantaged.

6.6 The target accounting approach captures the key actions being undertaken on land after the reference year that affect emissions and removals, and for which scientific uncertainty is limited.

NDC2 target form

7 NDCs under the Paris Agreement can be expressed as single-year targets, a multi-year target, or both.

7.1 A single-year emissions target signals a target to be met at the end of the NDC period, which in practice, is met through action over the target period to reduce emissions to the target level.

7.2 A multi-year target is managed across the period similar to New Zealand's domestic emissions budgets and sets a quantity of emissions allowed to be emitted over the budget period rather than isolating emissions in a single year.

8 Although countries use both approaches, overall, a single-year target is the most common target form across NDCs.

9 When New Zealand first set NDC1 in 2015, it was intended to be managed as a multi-year budget. At that time New Zealand did not have domestic emissions budgets. NDC1 was updated in 2021 and New Zealand moved to communicate NDC1 as a point year target to be more

comparable to other countries' NDCs. However, for comparability and consistency with previous targets, the point year target is managed as a multi-year budget.[1]

10 The most suitable approach for the NDC2 target form depends on the preferred target level. Based on this shift towards a NDC2 that is more aligned to domestic emission budgets, officials recommend moving away from as a multi-year emissions budget and instead use a single point-year target for how NDC2 is managed.

11 A single point-year target would simplify New Zealand's international and domestic target architecture and avoid having two similar, but slightly different, budgets covering the same time period.[2] New Zealand would track progress towards our single point-year target in our Biennial Transparency Reports, submitted every two years to the UNFCCC. Progress towards domestic budgets will continue to be tracked and reported by the Climate Change Chief Executives Board.

12 A switch to a single point year target form that is set on the basis of our domestic emissions trajectory may be criticised as being less ambitious than a multi-year budget continuing on from our NDC1 target, or a single year target that also builds from the NDC1 target. This is because whether a target is achieved depends on emissions in the final year, rather than emissions across multiple years. In practice, however, a single-year emissions target is met through action over the target period to reduce emissions to the target level so total emission reduce across the period will be approximately similar.

13 Given the advantages of a simpler reporting approach, 9(2)(g)(i) we consider a point year target is most suitable. A point year target is also the more common target form across NDCs internationally.

14 Related to this is the trajectory from NDC1 to NDC2. The proposed approach assumes the NDC2 trajectory starts from domestic levels in 2030, rather than from the NDC1 point-year target in 2030. The benefit of developing NDC2 from projected emissions is to enable the target to better incentivise and drive domestic emissions reductions. When NDC1 was updated in 2021 the provisional budget was calculated from both projected emissions and the previous 2020 target. This means that the proposed approach is consistent with past practice. MfE judges that this approach is defensible due to the nationally determined nature of NDCs, and the lack of prescription under Paris rules on what constitutes progression and how technically to derive a target.

9(2)(g)(i)

16 Clear communication about the reasons for the change will be important. Communicating why New Zealand has changed the form of our target in our NDC2 submission to UNFCCC will be important for transparency and to explain how NDC2 demonstrates a progression from NDC1.

[1] New Zealand is one of only three countries that manage NDC1 as a multi-year emissions budget (the others are Australia and Switzerland). Both Australia and Switzerland manage their NDC1 targets jointly as a single-year and multi-year target.

[2] Note that there will always also be a misalignment between our international and domestic climate change targets due to the inclusion/exclusion of Tokelau's emissions in NDCs vs emissions budgets. However, the emissions from Tokelau are negligible relative to New Zealand's and their inclusion in our domestic emissions budget would not change the level they set at when rounded to nearest Mt.

18(d)

Draft NDC2 submission to the UNFCCC is publicly available at: https://environment.govt.nz/publications/new-zealands-second-nationally-determined-contribution-submission-under-the-paris-agreement/

For *Summary of feedback from public engagement,* refer to Documents 8 and 10

Summary of submissions is publicly available at https://environment.govt.nz/publications/

Appendix 6 – Summary of feedback from public engagement

Insights from public feedback on NDC2

1. The opportunity for public feedback was open between 19 November and 8 December (20 days) and attracted 337 submissions. Table 1 provides a breakdown of submissions by group categories.

Table 1. Submissions received - by group type

Group type	Number of submissions
Individuals / other	187
Business / Industry	59
NGO / charity	39
Academic / Subject matter expert	38
Local Government	12
Iwi / Hapū	2
Total	**337**

2. There were five topics posed to the public on MfE website seeking input on how New Zealand should set its NDC2. Findings are provided below.

The Climate Change Commission's advice

3. Submitters were asked for their views on The Climate Change Commission's advice on NDC2. Table 2 provides a summary of the responses.

Table 2. Submitters views on the Commission's key findings on NDC2

Climate Change Commission's key findings	**Agree** *(per cent)*	**Disagree** *(per cent)*
New Zealand could achieve greater net emissions reductions in the NDC2 period (2031–35) than in NDC1 through domestic action alone.	44	2
The Commission estimated feasible level of emissions reductions -up to 69 per cent below 2005 levels by 2035 for NDC2.	3	7
Actions to achieve these emissions reductions would need to start before 2031 to be effective.	5	0
Delaying action, or introducing policies that encourage high-emission activities, may make it impossible to make these contributions to emissions reductions through domestic action.	13	1
The target contribution of 69 per cent requires New Zealand to assume faster and higher adoption rates of tech and systems changes than are currently expected.	59	1

Priority factors for consideration in setting NDC2

4. Submitters were asked to select from a list the top three factors the Government should consider when setting NDC2. Table 3 shows the highest priority factor identified.

Table 3. Submitters' views on the highest priority factor to be considered when setting NDC2

	Respondents ***(per cent)***	**Number of respondents (n)**
Align with Paris Agreement	54	147
Highest possible ambition	22	59
Minimise costs	7	18
Minimise economic impacts	7	18
Align with the Global Stocktake	7	18
Ensure a clear delivery plan	3	7
Relative standing	2	6
Total	100	273

Consideration of economic outlook

5. Submitters were asked what factors in New Zealand's economic outlook should be taken into consideration when setting NDC2.

6. In total, 216 submitters answered this question. Of these, 45 per cent cited a range of economic factors to consider when setting NDC2. These included a range of issues, such as inflation and the cost of living, the importance of exports to the New Zealand economy, and opportunities for electrification in the future. Our ability to take action came in second place in submitters' consideration (26 per cent), followed by New Zealand's availability and potential for renewable energy resources (25 per cent) and particular sector emissions' profiles (e.g. agriculture, transport).

Consideration of fair share

7. Submitters were asked what factors they think are most important for deciding a "fair share" for New Zealand for its NDC2.

8. Across responses, the three most relevant factors submitters considered should inform what New Zealand's "fair share" is in determining NDC2 were:

   i Our status as a developed country

   ii New Zealand's ability and capacity to take action, and

   iii A range of other factors were highlighted by submitters. Factors pointing to an ambitious NDC2 target included New Zealand's high per capita emissions, the need to set a benchmark for other countries to follow, and New Zealand leadership in the Pacific.

9. Others took a different view, highlighting that New Zealand's share of global emissions are very low, and so other, high-emitting countries should do more, the need to consider the affordability and impact on the economy, and our high proportion of agricultural emissions.

The role of offshore mitigation

10. Submitters were asked if NDC2 should be set at a level that is achievable with domestic action only or at a level that is achievable with a mix of domestic action and offshore mitigation.

11. In total, 281 submitters answered this question. Of these, 54 per cent indicated support for NDC2 to be set at a level achievable through a mix of domestic action and offshore mitigation. 21 per cent favoured a domestic only target, and 25 per cent were unsure, did not answer or selected ‘other’. Submitters who indicated ‘other’, expressed a range of different views on the role that offshore mitigation and wider climate policy and economic considerations for setting and meeting NDC2.

Insights from NDC2 targeted engagement

12. MfE engaged with key stakeholders and partners including primary sector representatives, major electricity users, Iwi Māori groups, Tokelau, environmental non-government organisations (ENGOs), the Climate Business Advisory Group and youth representatives. A summary of this is outlined below.

Domestic and offshore action

13. Most stakeholders are supportive of a NDC2 target level that is ambitious yet achievable largely through domestic action. However, stakeholders were concerned about achievability of the NDC2 target if climate policies are not consistent to support the level of action required to achieve it. Concerns were raised about over-reliance on offshore mitigation to meet emissions targets, particularly as the end of the NDC1 period approaches.

Business sector

14. Business stakeholders highlighted the need to prioritise credible domestic emissions reductions while maintaining New Zealand’s "clean and green" reputation. Aligning ERP2 with NDC2 and adopting consistent policies would give businesses the confidence to act and invest in low emissions solutions to contribute to New Zealand’s NDC target. A split-gas approach, reflecting methane’s unique impact, has strong support in the primary sector but requires broader alignment across industries.

Primary sector

15. Primary sector stakeholders advocate for a split gas target and for taking extra time to submit New Zealand’s (after the February 2025 deadline), so that thorough consideration is given to the outcomes of the independent review of biogenic methane science and targets.

ENGOs

16. ENGOs emphasised the need for a robust emissions reduction plan and credible NDC2 target that is high ambition and focussed on domestic action. ENGOs do not support a split gas approach nor using Global Warming Potential* for NDC2 accounting and highlighted the target must be transparent and avoid “greenwashed” accounting practices to overstate progress or deviate from IPCC guidelines.

Youth groups

17. Youth stakeholders highlighted New Zealand should take a high ambition approach, prioritising bold and ambitious domestic emissions reductions and focusing on increasing renewable energy without over-reliance on offshore mitigation. As a developed nation with greater capacity, youth groups expect New Zealand to lead by example in the Pacific, demonstrating strong climate leadership and upholding its international commitments and integrating intergenerational equity and children's rights.

Tokelau

18. New Zealand's NDCs extend to Tokelau, therefore it is important that Tokelau's interests are considered when setting NDC2. From targeted engagement with Tokelau, officials note that as Tokelau is extremely vulnerable to climate impacts it therefore has a strong interest in ambitious mitigation action by Parties to the Paris Agreement.

19. Tokelau has provided a written submission on NDC2 which highlighted their battle against climate impacts, which has real consequences for the people living on the three atolls. *"As an island nation at the* forefront *of climate change, the priorities for Tokelau are survival - to live and thrive with change".*

Iwi Māori views on NDC2

20. Te Rarawa's feedback highlighted the need for a sensible, NDC2 target, advising to avoid letting perfection delay progress. They also noted the importance of the voluntary carbon market and agritech to help meet any NDC2 target and the need for mitigation measures to be realistic for Māori, citing how solar panels would be more useful than EVs in their rohe.

21. Rangitāne Tū Mai Rā focused their feedback on climate adaptation and regional development. They see the Wairarapa as a key opportunity region for addressing climate adaptation challenges. They also noted the importance of research and development in technology to reduce emissions, opportunities from wider removals including blue carbon as well as continued native afforestation.

22. The National iwi Chairs Forum (NICF) climate focussed branch Pou Take Āhuarangi met with officials as part of targeted engagement and provided a written submission. Pou Take Āhuarangi recommends the Government set NDC2 with a target level of 69 per cent or greater (of net emissions below gross 2005 level).

23. Pou Take Āhuarangi recommends NDC2 is set at a level that is achievable with a mix of domestic action and high integrity offshore mitigation, prioritising domestic action.

24. Pou Take Āhuarangi expressed this target is the most ambitious of the scenarios outlined in the Commission's advice and supports Aotearoa to reduce emissions at pace to minimise climate impacts on vulnerable communities such as iwi and hapū.

25. To achieve this target, it recommends the Government consider a number of pathways and opportunities, including:

    i. Ensuring consistency between NDCs and Emissions Reduction Planning (ERP), including ERP2

    ii. Incorporate full forestry accounting i.e. removing pre/post 1990 distinctions

iii. Develop a comprehensive Māori emissions reduction strategy within ERPs as outlined in the Climate Change Response Act

iv. Resource Iwi Māori to reduce their emission footprint and change behaviour

v. Scale and scope funding for sector-specific needs (e.g., renewable energy, transport)

vi. Maximise synergies and pathways between mitigation and adaptation

vii. Enable private-public partnerships: maximising private investment can assist Aotearoa in achieving our targets while minimising the cost to taxpayers, resulting in greater environmental and economic outcomes

Insights from market research

26. The Ministry for the Environment (MfE) commissioned consumer market research to gauge the views of the broader New Zealand public. The research aimed to understand public awareness of New Zealand's international emissions reductions targets and capture sentiments around them, ensuring a wide cross section of opinions were considered.

27. A sample of over 1000 New Zealanders aged 18 and above completed an online survey between 22 November and 2 December 2024. The sample was representative of the New Zealand population based on the recent census considering age, gender and region. Some key findings include:

i **The relatively limited knowledge New Zealanders have on the NDC**: only one in three respondents (36 per cent) has previously heard about the NDC and less than half of knew any specific aspects of it.

ii **A strong sense of commitment to meet our targets**: the majority (74 per cent) of respondents believe it is important to meet targets set in NDC1.

iii **Preference for domestic action, while remaining open to international cooperation**: when presented with the challenges and cost of taking domestic action, the majority (82 per cent) of respondents showed openness to using some level of international cooperation, 35 per cent lean more towards domestic action and 20 per cent lean more towards international cooperation.

iv **Prioritising a fair and feasible target while minimising economic impact and cost**: the three most important factors respondents thought the Government should prioritise when setting NDC were: doing our fair share; aiming for feasible ambition and target; and considering the impact and cost to businesses and households.

Ministry for the Environment
Manatū Mō Te Taiao

Briefing: Final rescoped section 5k request for advice on NDC2

Date submitted: 11/07/2024
Tracking number: BRF-5005
Sub Security level: In-Confidence
MfE priority: Urgent

Actions sought from Ministers		
Name and position	***Action sought***	***Response by***
To Hon Simon WATTS **Minister of Climate Change**	**Approve** the final terms of reference for the Climate Change Commission's advice on NDC2 **Approve** the letter to the Climate Change Commission **Agree** to send the final terms of reference and letter to the Climate Change Commission	15/07/2024

Actions for Minister's office staff
Return the signed briefing to the Ministry for the Environment (ministerials@mfe.govt.nz).

Appendices and attachments
1. Terms of reference for the Climate Change Commission's advice on NDC2 2. Letter to the Commission

Key contacts at Ministry for the Environment			
Position	***Name***	***Cell phone***	***First contact***
Principal Author	Alexandra Hunter		
Responsible Manager	Tom Womack	9(2)(a)	✓
General Manager	Hemi Smiler		

Minister's comments

Final rescoped section 5k request for advice on NDC2

Key messages

1. Officials have been working to rescope the section 5K request for advice from the Climate Change Commission (the Commission) on New Zealand's second Nationally Determined Contribution (NDC2) [BRF-4832 refers]. This advice will inform the Government's decisions on setting NDC2 before the target must be submitted internationally in February 2025.

2. The rescoped request for advice on NDC2 is to replace the request made by the previous Government in October 2023. As previously advised, the Commission is unable to deliver the advice originally requested without additional funding or the request being rescoped [BRF-4832, BRF-3979 and BRF-4356 refer].

3. On 17 June 2024 you provided the Commission with a draft terms of reference for the rescoped request, in line with your legal responsibility to consult formally with the Commission on this. You discussed the request with the Chair and CE of the Commission at your meeting on 24 June.

4. On 4 July 2024 the Commission formally accepted the draft terms of reference. It did not seek any changes to the draft but noted that to meet the 31 October 2024 delivery date, the NDC2 advice will be based on modelling used in its draft advice on the 2050 target and fourth emissions budget (EB4).

5. Given the Commission's acceptance of the draft, the final terms of reference and an associated letter to the Commission are attached at appendices 1 and 2. We recommend you send these to the Commission by 15 July 2024 to formalise the request and enable work to begin.

Final terms of reference

6. The proposed terms of reference (Appendix 1) have not changed since the draft was provided to you on 6 June 2024 [BRF-4832 refers].

7. The scope of the request as laid out in terms of reference is for the Commission to provide a report on feasible domestic contributions to New Zealand's NDC2, including:

    i *Presenting a range of domestic emissions for the period 2031-2035 that could be feasible based on technically and economically achievable emissions reductions and/or removals consistent with different domestic emissions trajectories to 2050, as well as the corresponding range of headline percentage reductions for NDC2 based solely on those domestic emissions levels; and*

    ii *Describing, where possible, the associated impacts (including economic costs and broader positive and negative impacts for households, health and the environment) of the key emissions reduction and removal opportunities associated with those emissions trajectories to 2050, in particular for the period 2031-2035.*

Next steps

8. To formalise the request you must send the final terms of reference back to the Commission. We recommend sending these by 15 July 2024 so work on the advice can begin.

9. The Commission will then make the terms of reference publicly available as soon as practicable, as per requirements of the Climate Change Response Act.

Recommendations

We recommend that you:

a. **note** the Climate Change Commission has formally accepted the draft terms of reference you sent them on 17 June 2024

b. **approve** the final terms of reference for the Climate Change Commission's advice on NDC2 (Appendix 1)

Yes | No

c. **approve** the letter to the Climate Change Commission (Appendix 2)

Yes | No

d. **agree** to send the final terms of reference and letter to the Climate Change Commission

Yes | No

Signatures

Hemi Smiler
General Manager – Climate Change Mitigation
Climate Change Mitigation and Resource Efficiency
10/07/2024

Hon Simon WATTS
Minister of Climate Change

Date

Appendix 1: Terms of reference for the Climate Change Commission's advice on NDC2

Appendix 2: Letter to the Commission

Terms of Reference

The Minister of Climate Change requests under s5K of the Climate Change Response Act 2002 (the Act) that the Climate Change Commission (the Commission) provides a report on levels of domestic emissions reduction New Zealand could feasibly achieve as part of its second Nationally Determined Contribution (NDC2).

Purpose of the work

In 2021, the Government updated New Zealand's first Nationally Determined Contribution (NDC1) to 50 per cent below 2005 levels by 2030. In 2022, the Government published its first emissions reduction plan and the first three emissions budgets (2022–2025, 2026–2030, 2031–2035) as required under the Act.

In 2025, the Government is required to set New Zealand's NDC2 (2031-2035) under the Paris Agreement and to set emissions budget four (2036 – 2040) under the Act.

As an input to the Government's own consideration of an appropriate NDC2, this report will provide the Commission's assessment of the extent of domestic emission reductions that would be technically and economically achievable under several scenarios, over the NDC2 period and to 2050.

I am asking for this advice so that it can inform the Government's broader considerations around NDC2. It will also allow us to form a more strategic view of the approach to delivering progressively more ambitious NDCs over time.

As part of its NDC2 decision, the Government will be considering an appropriate New Zealand contribution to the global effort to limit the increase in global average temperatures to 1.5°C above pre-industrial levels under the Paris Agreement, and the potential role of international cooperation to achieve the ambition of this contribution. The Minister is not seeking the Commission's advice on emissions reductions that would be consistent with the 1.5°C goal or the role of international cooperation for NDC2.

Advice requested

The Minister requests that the Commission provide a report on feasible domestic contributions to New Zealand's NDC2, including:

i. *Presenting a range of domestic emissions for the period 2031-2035 that could be feasible based on technically and economically achievable emissions reductions and/or removals consistent with different domestic emissions trajectories to 2050, as well as the corresponding range of headline percentage reductions for NDC2 based solely on those domestic emissions levels; and*

ii. *Describing, where possible, the associated impacts (including economic costs and broader positive and negative impacts for households, health and the environment) of the key emissions reduction and removal opportunities associated with those emissions trajectories to 2050, in particular for the period 2031-2035.*

Considerations

In considering feasible emissions trajectories, the Commission should include a range of assumptions about future rates of technological and/or systems change, including changes in economic factors such as price of mitigation options.

As with all advice the Commission provides, it must consider where relevant the matters under s5M of the Act; applying judgement as it deems appropriate.

The report should:

a) Include a variety of approaches for target presentation and emissions accounting and be clear about these approaches; and

b) include a presentation of domestic emissions for the NDC2 period that facilitates straightforward comparison with New Zealand's first Nationally Determined Contribution and domestic emissions budgets.

Mode of work

The Commission may engage with relevant persons as provided for by s5N of the Act.

Relevant officials will be available to engage with the Commission and will share related information and data to inform the Commission's work.

Timeframes

The Commission's advice on these matters, in the form of a final report, is to be provided to the Minister of Climate Change by 31 October 2024 at the latest. However, I ask that the Commission makes best endeavours to provide the report sooner if possible, given the urgency of the matter.

The Commission will brief officials on its final advice after it has been provided to the Minister, but prior to the public release of the report.

Publication

s5L of the Act applies, meaning the Minister of Climate Change must present a copy of the report to the House of Representatives no less than ten working days after the Minister receives it, and the Commission must make it publicly available as soon as practicable thereafter (but no later than 20 working days after providing it to the Minister).

Hon Simon Watts

Minister of Climate Change
Minister of Revenue

Dr Rod Carr
Chair of the Climate Change Commission | He Pou a Rangi
roderick.carr@climatecommission.govt.nz

Dear Rod

Further to my letter of 17 June, I am writing to confirm my request for advice from the Climate Change Commission on levels of domestic emissions reduction New Zealand could feasibly achieve as part of its second Nationally Determined Contribution (NDC2) and to provide the terms of reference for this request.

I make this request under s5K of the Climate Change Response Act 2002 (the Act), which provides for the Minister of Climate Change to request reports from the Commission on matters relating to climate change. This request for advice on NDC2 replaces the advice previously requested from the Commission by the previous Government on NDC2 in October 2023.

REPORT ON THE DOMESTIC CONTRIBUTION TO NDC2

The purpose of this request is to support the Government to determine the level of NDC2 and to support a more strategic view of the approach to delivering NDCs over time.

I am requesting the Commission identify range of technically and economically achievable domestic emissions levels for the NDC2 period 2031-2035, consistent with different domestic emissions trajectories to 2050, along with the corresponding range of headline percentage reductions for NDC2 based solely on those domestic emissions levels.

I am not seeking the Commission's advice on broader aspects the Government will need to consider when setting NDC2, such as emission reductions that would be consistent with the 1.5°C temperature goal of the Paris Agreement or the role of international cooperation for NDC2.

NEXT STEPS

Following consultation with you as per section 5K(2) of the Act, I have finalised the terms of reference for this work. The terms of reference are attached to this letter, and I expect you to make them publicly available in accordance with section 5K(3)(a) of the Act. I expect your advice to be delivered by 31 October 2024.

Yours sincerely

Hon Simon Watts
Minister of Climate Change

Private Bag 18041, Parliament Buildings, Wellington 6160
s.watts@ministers.govt.nz

Document 3

Briefing: Initial advice on NDC2 target level

Date submitted: 14 October 2024
Tracking number: BRF-5347
Sub Security level: In-Confidence
MfE priority: Urgent

Actions sought from Ministers		
Name and position	***Action sought***	***Response by***
To Hon Simon WATTS **Minister of Climate Change**	**Note** the contents of this briefing and discuss with officials	17 October

Actions for Minister's office staff
Return the signed briefing to the Ministry for the Environment (ministerials@mfe.govt.nz).

Appendices and attachments
1. New Zealand's national circumstances for consideration when setting NDC2
2. Aligning with 1.5°C and equity considerations for NDC2
3. Timeline for setting NDC2

Key contacts at Ministry for the Environment			
Position	***Name***	***Cell phone***	***First contact***
Principal Author	Alexandra Hunter		
Responsible Manager	Meredith Davis	9(2)(a)	✓
General Manager	Hemi Smiler	9(2)(a)	
Deputy Secretary	Sam Buckle	9(2)(a)	

Minister's comments

Initial advice on NDC2 target level

Key messages

1. Parties to the Paris Agreement, including New Zealand, are required to communicate their second nationally determined contributions (NDC2) to the UNFCCC by 10 February 2025. NDC2 will cover the period 2031-35.

2. Over the next two months, further information and evidence will become available to inform the Government's decisions on NDC2, including advice from the Climate Change Commission (the Commission), economic modelling, targeted engagement, and insights from your conversations at COP29.

3. This briefing sets out the main factors to be considered when making decisions about NDC2 and the key choices available to the Government.

4. The Paris Agreement requires NDC2 to be a 'progression' on NDC1 and to represent each Party's "*highest possible ambition, reflecting its common but differentiated responsibilities and respective capabilities, in the light of different national circumstances"*[1]. Determining New Zealand's highest possible ambition is a subjective judgement for Ministers. In setting NDC2 you may also wish to consider wider factors such as international expectations and economic and fiscal costs.

5. The Government will face several key choices when setting NDC2. One is how strongly to align NDC2 with the Paris Agreement's temperature goal to *hold "the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5℃"*[2]. Achieving the temperature goal is the key purpose of NDCs and it is in New Zealand's interest for all countries to collectively meet this goal.

6. In 2018 the Intergovernmental Panel on Climate Change (IPCC) published its Special Report on Global Warming of 1.5°C. The report highlighted the impacts of exceeding 1.5°C and the scale and urgency of emissions reduction needed to avoid this. Making a strong contribution to 1.5°C though NDC2 would require more emissions reduction than needed to meet emissions budget 3 (EB3), which covers the same period.

7. Ministers have a related choice on how New Zealand's highest possible ambition for NDC2 relates to EB3 (currently set at 240 $MtCO_2e$ over 2031-35 which equates to an NDC2 of ~51% below 2005 levels). After taking into account our national circumstances and trade-offs with 1.5°C alignment, NDC2 could either:

    i Align closely with the current level of EB3; or

    ii Seek further emissions reduction beyond EB3. Pursuing further domestic reductions across the NDC2/EB3 period could support the planned adaptive management approach for ERP2 (BRF-5138 refers).

[1] Paris Agreement, Article 4(3)
[2] Paris Agreement, Article 2(1)(a)

8. Another key choice is the extent to which Ministers wish to leverage the option of international action to enhance ambition in the NDC2 period. NDC2 could be set in a way where it is intended to be met either:

    i Through domestic emissions reduction, with offshore mitigation to be used only as a backstop; or

    ii Using a mixture of domestic emissions reduction and offshore mitigation.

9. The Government also has choices about the form of the NDC2 target. These include whether to set NDC2 as a single year target or to manage the target as a budget, and whether to set the target as a fixed number or a range. We can provide further advice on these issues.

10. You have a series of bilateral meetings in the week of 21 October. These are an opportunity for you to discuss with your colleagues the factors that must be considered when setting NDC2 and the key choices available to the Government.

11. We are aiming to seek Cabinet decisions on NDC2 in December 2024, with a discussion at CPMG occurring prior. We will continue to work with your office to confirm the timing for NDC2 decisions.

Recommendations

We recommend that you:

a. **Note** the Paris Agreement requires New Zealand's NDC2 must:
    a. represent a progression beyond NDC1
    b. represent New Zealand's highest possible ambition in light of national circumstances
    c. be informed by the outcomes of the latest Global Stocktake
    d. be set with a view to achieving the purpose of the Paris Agreement, including the temperature goal to limit warming to well below 2°C and pursue efforts to limit global average temperate rise to 1.5°C above pre-industrial levels.

b. **Note** that when setting NDC2 the Government has choices about:

    a. how strongly to align NDC2 with the global goal to limit warming to 1.5°C
    b. how New Zealand's highest possible ambition for NDC2 relates to EB3
    c. whether NDC2 should be intended to be met through domestic emissions reductions with offshore mitigation used only as a backstop, or met with a mixture of both domestic and offshore mitigation.

c. Discuss these choices with officials, along with any priorities for NDC2 that you would like to see reflected in future advice

Yes | No

d. **Indicate** whether you would like further advice on:

   a. A single year NDC2 target instead of managing the target as a budget

   Yes | No

   b. Expressing the NDC2 target as a range

   Yes | No

Signatures

Hemi Smiler
General Manager – Climate Change Mitigation
Climate Mitigation and Resource Efficiency
11 Oct 24

Hon Simon WATTS
Minister of Climate Change

Date

Initial advice on NDC2 target level

Purpose

1. This briefing outlines the key considerations for setting New Zealand's second nationally determined contribution (NDC2) under the Paris Agreement and the choices for the Government when setting the target.

2. Your feedback on this briefing will inform the development of an NDC2 Cabinet paper, which is currently scheduled for consideration in December 2024.

Background

3. Under the Paris Agreement, NDCs are the main mechanism to achieve the long-term temperature goal to limit warming to well below 2°C and pursue efforts to limit global average temperature rise to 1.5°C above pre-industrial levels.

4. Parties to the Paris Agreement, including New Zealand, are required to communicate their second NDCs to the UNFCCC by 10 February 2025. NDC2 will cover the period 2031-35. International scrutiny of the targets will be high, including from key trading partners such as Australia, the United States, United Kingdom, European Union, as well as Pacific Island countries.

5. Over the next two months, further information and evidence will become available to support the Government's final decisions on NDC2. This includes the advice you have requested from the Climate Change Commission on NDC2 (due by 31 October), economic modelling of the costs of different target options, and the results of targeted engagement and public feedback via the MfE website.

6. You will also have opportunities to gather information about the potential ambition of partner countries through your conversations at COP29 9(2)(f)(iv) [redacted]

7. You will also receive the report from the independent methane review panel and advice from the Commission on emissions budget 4 and the 2050 targets by the end of this year. Considering this advice together will help ensure decisions on NDC2 align with related domestic policy choices.

8. We will continue to develop advice on NDC2 as further information becomes available, taking into account your feedback on this initial briefing. The remainder of this briefing sets out the key considerations for setting NDC2 and choices for the Government when making its decisions.

Considerations when setting NDC2

The Paris Agreement requirements for NDC2

9. There is no prescribed framework for setting the target level for NDCs – they are inherently 'nationally determined'. Despite this, the Paris Agreement lays out several broad requirements which somewhat constrain this flexibility. Each country can determine its own NDC providing the core requirements are met.

10. Key requirements of the Paris Agreement are that NDCs must:

    9(2)(h) [redacted]

    ii **Represent each country's highest possible ambition, reflecting its common but differentiated responsibilities and respective capabilities, in the light of national circumstances.** Common but differentiated responsibilities and respective capabilities is generally understood to mean that all states have an obligation to address climate change, but with different levels of responsibility. Relevant national circumstances may include a broad range of factors including New Zealand's status as a developed country, emissions profile (including a high proportion of emissions from agriculture and significant, existing renewable electricity generation), and the feasibility of meeting the target. Analysis of New Zealand's national circumstances is provided in Appendix 1.

    iii **Be informed by the outcomes of the latest Global Stocktake** (discussed below).

    iv **Be set with a view to achieving the purpose of the Paris Agreement**, including the temperature goal to limit warming to well below 2°C and pursue efforts to limit global average temperature rise to 1.5°C (discussed below).

The Global Stocktake

11. Article 14 of the Paris Agreement establishes a 5-yearly process to take stock of the implementation of the Paris Agreement, assessing the collective progress towards achieving its purpose and goals, the Global Stocktake (GST).

12. The first GST concluded at COP28 in 2023. Key outcomes for the NDC2 target include:

    i Noting with significant concern that the world is not on track to achieve the temperature goal, and that there is a rapidly narrowing window for raising ambition and implementing existing commitments in order to achieve it.

    ii Emphasising the need for urgent action and support to keep 1.5°C within reach; and noting that feasible, effective and low-cost mitigation options are already available in all sectors to do this.

    iii Emphasising the urgent need for accelerated implementation of domestic mitigation measures as well as the use of voluntary cooperation under Article 6.

    iv Encouraging Parties to come forward in their next NDCs with ambitious, economy-wide emission reduction targets, covering all greenhouse gases, sectors and

categories and aligned with limiting global warming to 1.5°C, as informed by the latest science, in the light of different national circumstances.

13. The GST also calls for countries to contribute to specific efforts on energy emissions, methane emissions, and forestry/ecosystem restoration.[3] The strength of New Zealand's contribution to these efforts could have implications for our NDC2 target.

Contributing to the global effort to pursue 1.5℃

14. New Zealand will need to demonstrate that its NDC2 represents a credible contribution to the global effort to pursue 1.5°C. Determining our 'fair share' contribution to a collective global goal is a subjective judgement for Ministers.

15. In 2015, New Zealand set its first NDC (NDC1) as a 30% reduction below 2005 by 2030 (note this was a target expressed on a budget basis, and on a like for like basis with the current NDC1 of 50% as a point year target, would be 39%). Following the publication of the IPCC Special Report on Global Warming of 1.5°C in 2018, there were calls for countries to increase the ambition of NDCs.

16. In 2020, Parties to the Paris Agreement were asked to communicate or update their NDCs. The Government asked the Climate Change Commission to assess the compatibility of NDC1 with the 1.5°C global goal [CAB-20-MIN-0149 refers]. In 2021, the Commission advised that to be compatible with 1.5°C, NDC1 would need to be "much more than 36%" below 2005 levels (note this would be 45% when considered as a point year target as per the current NDC1).

17. The Commission based its advice on consideration of the global average rate of emissions reduction needed to achieve 1.5°C. If applying the same methodology for NDC2, matching the global average rate of emissions reduction would give an NDC2 target of 46% (45% for upper quartile and 55% for lower quartile).

18. The Commission advised that as a developed country, New Zealand's effort should be stronger, but that "how much stronger the NDC should be beyond this is a question for elected decision makers, given the social, political and ethical judgements involved."[4]

19. Under the Paris Agreement, each country's contribution to the collective effort is determined nationally. The Paris Agreement does not specify how emission reductions are to be shared between countries. New Zealand's "fair share" of the reductions needed to keep warming below 1.5°C is a judgement for the Government.

20. The IPCC has developed equity principles which can be used to help understand different ways the global effort to limit warming can be shared between countries. While countries do not need to strictly align their NDCs with these principles, they are useful as an illustrative tool. We have used the equity principles to help understand different lenses for considering New Zealand's fair share contribution to the global effort and how aligned this effort is likely to be with 1.5°C.

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[3] See paragraphs 28 and 33 of decision document 1/CMA.5

[4] He Pou a Rangi the Climate Change Commission |Ināia tonu nei: a low emissions future for Aotearoa, P.357

21. This analysis found that aligning strongly with 1.5°C under the equity principles assessed would require significantly more ambition than EB3. A description of these principles and the level of emissions reduction they imply for New Zealand's NDC2 is provided in Appendix 2.

22. In summary, across both frameworks used for analysing alignment with 1.5°C, the higher the NDC2 target, the more strongly aligned with the 1.5°C temperature goal it will be.

6(a)

23. 6(a), 9(2)(f)(iv)

25. As we get closer to the deadline for NDC2, we expect more information will become available. MfE will engage with counterparts on technical elements of NDC2 9(2)(f)(iv)

26. In considering New Zealand's NDC2 target relative to other countries, it is important to consider differences in countries' national circumstances and the way their targets have been set (eg, using gross-net or net-net targets, different baseline years). This complexity means it is not possible to provide a direct 'apples with apples' comparison and it can be difficult to directly compare ambition and progress.

27. 9(2)(f)(iv)

Relation to emissions budgets

28. NDC2 will cover the same time period as our third domestic emissions budget (EB3), which is currently set at 240 $MtCO_2e$. Aligning NDC2 with EB3 would give a headline target of ~ 51%. Note that the Commission will soon be advising on EB4 and is likely to recommend tightening of EB3 (and EB2) as part of this.[7]

29. However, NDCs and domestic emissions budgets and targets have different purposes, legal requirements, and processes for setting and management. This means the Government has options about how to treat the relationship between domestic emissions budgets and NDCs.

30. Domestic emissions budgets and 2050 target are set under our domestic legal framework (the Climate Change Response Act). Emissions budgets should be *'ambitious but likely to be technically and economically achievable'.* The budgets must be set in a way that allows them to be met through domestic action alone.[8] EBs set the legally binding upper limit for emissions allowed across the period (they themselves are not targets).

31. In contrast, NDCs are to represent a credible contribution to the global effort to limit warming to 1.5°C, as based on the latest climate science and global context, and they must reflect New Zealand's *'highest possible ambition'*. The obligation surrounding NDCs is to intend to meet the target and pursue measures aimed at doing so. The Paris Agreement allows countries to use offshore mitigation as well as domestic action to meet their NDCs, recognising that this may allow for higher ambition.

32. You may wish to consider how NDC2 could support achievement of EB3. Setting NDCs at a higher ambition than the corresponding domestic emissions budget could help drive

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

[7] This was signalled in its draft advice, published earlier this year.
[8] Climate Change Response Act section 5W(b)

further emissions reduction across the period, supporting both NDC and EB achievement.

33. Given the inherent uncertainty in the emissions reductions projected from policies, pursing a higher NDC2 through further domestic action could provide a buffer to ensure EB3 is met. This would support EB achievement and would likely reduce the need to respond to shortfalls using the adaptive management approach (BRF-5138 refers).

34. The latest modelling undertaken for ERP2 suggests that there is a projected abatement gap of approximately 12.2 $MtCO_2e$ to meet EB3. While this briefing uses EB3 (240 $MtCO_2e$) as the starting point for considering NDC2, it is important to note that there is still work to be done ensure emissions are reduced to this level.

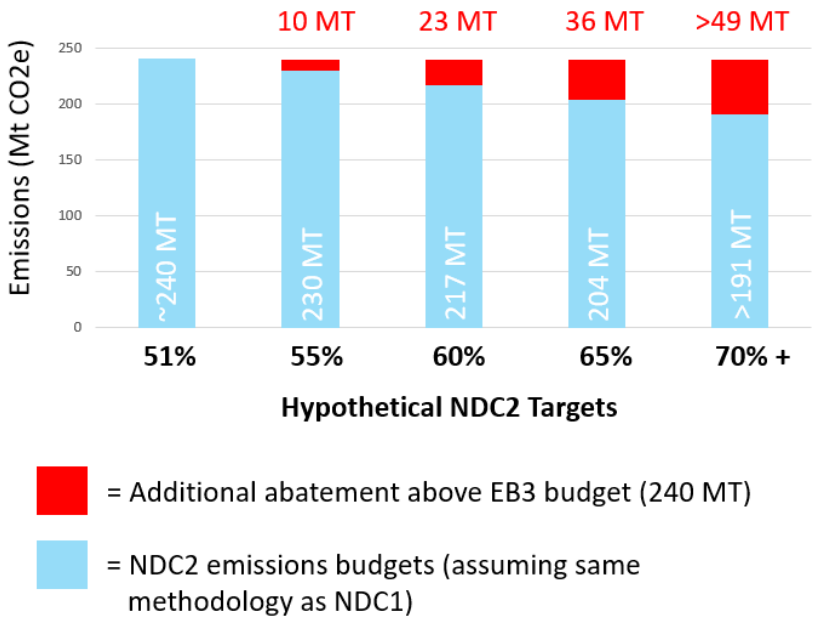
35. There may also be opportunities to achieve a more ambitious NDC2 at lower cost by leveraging opportunities for international cooperation to access offshore mitigation.

Choices and trade-offs when setting the NDC2 target

36. The Government has a wide range of options for the NDC2 target. In deciding New Zealand's highest possible ambition, choices will be needed about which factors to prioritise.

37. Figure 1 illustrates the NDC2 emissions budget that corresponds with a range of different headline targets (blue), assuming the same methodology is used to calculate the budget as for NDC1. Emissions reduction that would be needed beyond EB3 is shown (red).

Figure 1. Initial illustrative options for NDC2 target



38. To help navigate the complex range of factors to take into account, we propose that Ministers consider the options in light of three key objectives:

i NDC2 is a credible contribution to the Paris Agreement temperature goal

ii NDC2 can be feasibly implemented and support New Zealand's long-term transition and 2050 target

iii The fiscal and economic costs of meeting NDC2 are acceptable.

39. There are trade-offs between these objectives, which the Government will need to consider. Higher mitigation will be more aligned with achieving the Paris Agreement temperature goal but will have higher direct costs and be more challenging to deliver.

40. Work is underway on the potential costs of different options for the target, and the potential mix of domestic abatement and offshore mitigation that could be used to deliver it efficiently. We plan to provide you with an updated assessment of NDC2 target options in early November.

41. While we do not have all of the information available yet to assess options for the target, to support future decisions you may wish to consider your preferences on the below key choices.

How strongly to align NDC2 with the global 1.5℃ temperature goal

42. Achieving the temperature goal is a key purpose of NDCs and it is in New Zealand's interest for all countries to collectively meet the goal. As highlighted in the GST, current NDCs are not sufficient to keep the world on track to limit warming to 1.5°C. This means there is pressure for all countries to take stronger action. 6(a)

43. Aligning NDC2 strongly with 1.5°C would require significantly more emissions reduction than needed to meet EB3, as laid out in Appendix 2.

How New Zealand's highest possible ambition for NDC2 relates to EB3

44. Ministers have a related choice on how New Zealand's highest possible ambition for NDC2 relates to EB3 (240 $MtCO_2e$ over 2031-35 which equates to an NDC2 of ~51% below 2005 levels). After taking into account our national circumstances and trade-offs with 1.5°C alignment, NDC2 could either:

i Align closely with the current EB3; or

ii Seek further emissions reduction beyond EB3.

45. Using NDC2 to seek further emissions reduction beyond EB3 could support the adaptive management approach to ensuring EB3 is met, as discussed above.

46. In alignment with the Paris Agreement, choices about our highest possible ambition and how this relates to EB3 will need to be informed by consideration of New Zealand's national circumstances, as outlined in Appendix 1.

Whether offshore mitigation should be used to enhance ambition for NDC2

47. Another key choice is the extent to which Ministers wish to leverage the option of international action to enhance ambition in the NDC2 period. NDC2 could be set in a way where it is intended to be met either:

i through domestic emissions reduction, with offshore mitigation to be used only as a backstop; or

ii using a mixture of domestic emissions reduction and offshore mitigation (as per NDC1).

Form of the NDC2 target

48. Beyond the NDC2 target level itself, the Government has choices about the form of the target. These include:

    i Whether to use a single year target or a budget approach

    ii Whether to express the NDC2 target as a range or a fixed number.

49. Each of these issues is discussed below, and we can provide you with further advice in due course.

9(2)(f)(iv)

51. New Zealand's domestic 2050 target is already a split gas target, and the potential for reductions in emissions of different gases may be considered as part of New Zealand's national circumstances when setting the overall NDC2 target. We can provide you with further advice on this if desired.

Single year target vs budget approach

52. The Government has choices about whether the form of NDC2 should align with the approach used for NDC1 or not. The two main options are to set NDC2 as a:

    i **Headline point year target managed with a multi-year emissions budget** – this mirrors the NDC1 approach. The headline percentage reduction (ie. 50% by 2030 for NDC1) is converted into a multi-year emissions budget covering the NDC period. Whether the NDC is met depends on whether our emissions stay within that budget over the period, rather than measuring our emissions in the final year.

    ii **Single point-year headline target** – this would require changing from our current approach used to manage NDC1. Whether the NDC is met depends on whether emissions in the target year (eg, 2035 for NDC2) are below the target level.

53. New Zealand is one of only a few countries who manage their NDC1 target as a multi-year emissions budget. Most countries manage their NDCs as a single point-year headline target as this approach is relatively simple.

54. There are pros and cons of each option. The most suitable option for NDC2 is likely to depend on the ambition of the target, choices around alignment with our domestic emissions budgets and whether offshore mitigation is intended to be used to meet it. Therefore, we recommend that the form of NDC2 should be considered following your direction on ambition and the preferred approach to domestic and offshore mitigation.

Express target as a range

55. The Government also could choose an NDC target expressed as a range. For example, Canada's headline target for NDC1 is for a 40 to 45 percent reduction in emissions below 2005 by 2030.

56. This approach could be used to signal ambition while providing flexibility for New Zealand to adjust its efforts based on evolving national circumstances, such as any future decisions on the 2050 target following the Methane Science and Targets Review and the CCC advice on the 2050 target, and EB4.

9(2)(h)

9(2)(h)

9(2)(h) [redacted]

9(2)(h) [redacted]

[redacted]

- [redacted]
- [redacted]
- [redacted]

[redacted]

[redacted]

- [redacted]
- [redacted]
- [redacted]

Consultation and engagement

64. We have consulted with the Treasury, MPI, MFAT and MBIE while preparing this briefing.

65. As agreed in BRF-5428 we will soon begin targeted engagement with selected groups. Information about NDC2 will also be published on the Ministry's website, as an opportunity for public feedback. This engagement will conclude in mid-November, so that the insights from it can be included in your Cabinet paper on NDC2.

Next steps

66. You have meetings scheduled in the week of 21 October – with Ministers Willis, Minister Jones, and Undersecretary Court. You could use these meetings as an opportunity to set out:

    i the considerations that need to be taken into account when setting NDC2

    ii the key choices available to the Government.

67. We will provide collateral to support these meetings by 21 October.

68. The Climate Change Commission is due to provide its advice on NDC2 by 31 October, and has agreed to work towards providing this earlier to support you to undertake public engagement.

69. We will continue to develop the evidence base to support final decisions on NDC2 ahead of developing a Cabinet paper, including economic modelling of costs and impacts, the Commission's advice, and the results from the targeted engagement.

70. We have provided an overview of the project timeline in Appendix 3. As directed by your office, we are currently targeting Cabinet decisions on NDC2 in December 2024, with a discussion at CPMG occurring prior. This, however, is a challenging timeframe.

71. The alternative is for NDC2 to be considered by Cabinet in late January. NDC2 must be communicated to the UNFCCC (10 February 2025). We will continue to work with your office on the timing for NDC2 decisions and announcements.

Document 3.1

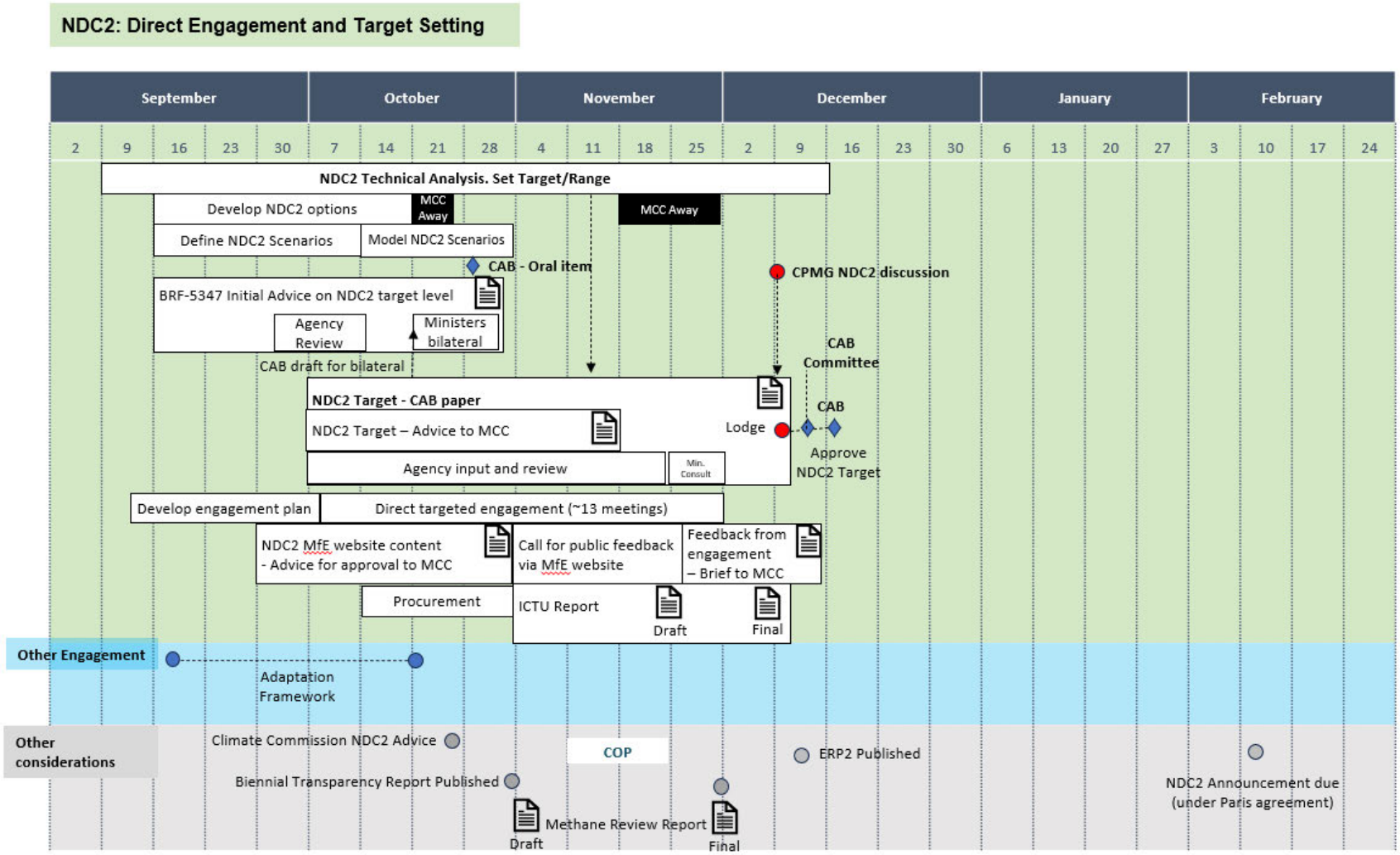
Appendix 1: National circumstances

Sent via email to the Minister's Office

Appendix 2: Aligning with 1.5°C and equity considerations

Sent via email to the Minister's Office

Appendix 3: Timeline for setting NDC2



New Zealand's national circumstances for consideration when setting NDC2

Purpose

1. The Paris Agreement sets out that all countries' NDCs will reflect their "highest possible ambition". This term is not defined in the Paris Agreement, however Article 4(3) provides that highest possible ambition is to reflect the country's "common but differentiated responsibilities and respective capabilities, **in the light of different national circumstances**."

2. This appendix is intended to support your consideration of New Zealand's national circumstances, in the context of decisions on NDC2.

Key National Circumstances

Historical contribution to warming

3. New Zealand's historic contribution to global warming is driven by its greenhouse gas emissions profile, dominated by methane (CH4) from agriculture and carbon dioxide (CO2). While CH4 has a higher global warming potential than CO2, it does not accumulate over time in the atmosphere in the same way CO2 does, so it does not contribute as much to historic warming.
4. While New Zealand's total contribution to global emissions is relatively small, its per capita gross emissions for all gases are significantly higher than the developed-country average. This is largely due to its agriculture dependent economy and a relatively high reliance on fossil fuels in the transport sector.

5. When looking at gross CO2 only emissions, New Zealand's per capita emissions are close to the developed country average. In contrast, New Zealand's net CO2 emissions per capita are relatively low compared to similar developed countries, thanks to substantial carbon sequestration from forestry.

New Zealand's emission profile

6. New Zealand's emissions profile is distinct among developed countries with agriculture accounting for over half of total emissions, largely driven by methane from livestock. Biogenic methane is harder to abate than CO2 due to limited mitigation options making achieving deep emissions cuts more challenging for New Zealand compared to countries that can reduce emissions by transitioning from coal to renewable energy. Despite these

challenges, the agricultural sector, particularly dairy, meat and wool, remain critical to the economy, contributing significantly to GDP, export revenue, and employment.

7. New Zealand benefits from a predominantly renewable electricity supply, with around 85% generated from hydro, wind, and geothermal sources. This is among the highest globally and plays a key role in supporting the country's decarbonization efforts as the economy shifts to electric technologies.

8. Additionally, New Zealand has made progress in reducing its emissions intensity (emissions per unit of GDP) particularly in service and utility sectors. This demonstrates a decoupling of economic growth from emissions, indicating the industries are sustaining their GDP while reducing their emissions.

National capabilities and opportunities

9. New Zealand is regarded as a developed economy with the capacity for significant emissions reductions. Our share of the global effort is expected to be higher than the global average due to these national capabilities. New Zealand's national capabilities include:

    i. Geographical characteristics, trade reliance, and low population density.

    ii. High share of agricultural emissions and reliance on fossil fuel-powered transport.

    iii. High share of renewable electricity.

10. Other capabilities relate to key government priorities central to the second emissions reduction plan (such as doubling renewable energy generation). These alongside New Zealand's strong regulatory framework under the Climate Change Response Act, including the Emissions Trading Scheme, and robust carbon accounting, enhance our ability to achieve emissions reductions compared to others and pursue our highest *possible* ambition.

Key challenges and considerations for NDC2

11. Recent economic challenges, such as inflation and global slowdowns, may impact New Zealand's ability to invest in immediate emissions reductions. 6(a) [redacted]

12. Fiscal challenges may impact the ability of the Government to invest in mitigating emissions or for businesses to make significant investments in the short-term, but investments may be unlocked in the medium to long-term as conditions improve.

Appendix 2. Aligning with 1.5°C and equity considerations for NDC2

Purpose

1. This appendix provides more detail on the concept of equity and aligning with the global 1.5°C goal. The approach taken is consistent with the assessment of alignment of NDC1 with 1.5°C in 2021, and also reflects the approach taken by the Climate Change Commission in its 2024 draft advice on the 2050 target.

2. The analyses presented here are associated with a number of limitations and assumptions that are not discussed in detail in this appendix. We can provide more detail as required. The NDC2 budgets and corresponding headline point year targets should be seen as illustrative. Alternative methodologies and data sources are available and using these could change specific numbers while still being consistent with the general equity principles discussed here.

Approach taken to assess alignment with 1.5°C

3. There is no single accepted measure of how global emissions should be equitably shared amongst countries. We used the global 1.5°C consistent pathways identified in the Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report (AR6)[1] to assess New Zealand against four main equity principles identified by the IPCC: equality, capacity, responsibility and the right to sustainable development.

4. We also quantified what level of emissions reduction New Zealand would need to achieve through NDC2 if the target was based on all countries reducing emissions at an equal rate, ie. the global average rate of reduction required for 1.5°C, based on the AR6 1.5°C global pathways. This follows on from the approach the Climate Change Commission (the Commission) applied in its advice on updating NDC1.

5. An equal rate of reduction is not considered as a measure of equity as it implies the same proportionate reductions of all countries. However, this provides a useful comparison for assessing the compatibility with the global 1.5°C effort.

6. A high-level summary of our interpretation of the definition for the equity principles assessed here, the approach taken to assess alignment with 1.5°C and the quantitative and qualitative methodological approaches applied are presented in Table 1 below.

[1] The illustrative NDC2 targets and budgets presented in this advice are based on the median C1 category of AR6 pathways (pathways that limit warming to 1.5°C in 2100 with a likelihood of greater than 50% with no or limited overshoot).

Equity Principle Assessed	Definition	Approach taken to assess alignment with 1.5°C	Methodological approach to quantify/qualify illustrative NDC2 budget and headline target
Equality	Equality can be broadly considered as each global citizen having equal right of access to the atmosphere to dispose of greenhouse gas emissions. A common interpretation of equality is equal per capita emissions (an equal right to pollute).	Based on this interpretation of equality, New Zealand's NDC2 could be considered consistent with 1.5°C under this perspective if our per capita emissions are in-line with the global average per capita emissions in 1.5°C consistent pathways.	We calculate illustrative NDC2 budgets and headline targets based on New Zealand's per capita emissions[2] achieving the global average both during 2031-35 and two less stringent scenario that converge in 2035 and 2040[3].
Capacity	Capacity in the context of climate change equity is generally regarded as 'capacity to pay for the cost of mitigation', which considers the mitigation of emissions as a collective global task.	Based on this interpretation of capacity, New Zealand's NDC2 could be considered consistent with 1.5°C under this perspective if our share of the global abatement necessary by 2035 to achieve 1.5°C-consistent emissions pathways reflects our share in global wealth.	We take a simplified approach that uses New Zealand's share of global GDP[4] (based on purchasing power parity) as a proxy for capacity to pay for the cost of mitigation using two methods based on data from both the UNEP Gap Report and the average global 1.5°C pathways from AR6.
Responsibility	The concept of responsibility means that countries are held responsible not only for the contribution to future emissions but also past emissions to future global warming.	Based on this principle, New Zealand's NDC2 could be considered consistent with 1.5°C under this perspective if the total contribution of our historical and future emissions to global warming of 1.5°C reflects our share of the global population.	We use the Commission's recent analyses of warming from emissions from New Zealand between 1850-2100 in its draft advice on the 2050 target to qualitatively assess this principle[5].
Right to Sustainable Development	The general implication of this principle is that the most developed countries should take a larger share of the global burden of mitigation, as under this perspective it would be inequitable for wealthy emitters who developed their standard of living on the basis of fossil fuels and other emitting activities to require others to reduce emissions before they have developed a minimum standard of living.	Based on this principle, New Zealand's NDC2 could be consistent with 1.5°C under this perspective if it took a larger share of the global burden of mitigation. However, there is no consensus about the exact development threshold over which people should contribute to emissions reductions.	We use the qualitative approach taken by the Commission in its draft advice on the 2050 target[6].

Table 1. Summary of the four equity principles assessed, including a summary of their definition and our approach taken to assess alignment with 1.5°C and methodological approach to quantify/qualify illustrative NDC2 budget and headline targets

[2] We apply per capita calculations separately for biogenic methane, and for all GHGs other than biogenic methane, consistent with form of our split-gas domestic 2050 target.

[3] Given that reaching equal per capita emissions aligned with the average global 1.5°C will take time for currently high emitters, an argument could be made that per capita emissions should converge with global average emissions at a later point in time. We provide illustrative NDC2 budgets and headline targets that converge with the global average in 2035 and 2040. However, a later date for equal per capita emissions implies that countries with currently higher than average per capita emissions have greater access to the atmosphere in the near term than those who are currently low emitters.

[4] While GDP does not necessarily reflect a countries true capacity to pay for mitigation, other more suitable metrics such as the real gross national disposable income are not readily defined globally.

[5] Based on the Commission's recent analyses of warming from emissions from New Zealand between 1850-2100 under the current 2050 target, as presented in its discussion document review of the 2050 emissions reduction target, it is estimated that an equal per capita share of 1.5°C warming for New Zealand would be a limit of 0.001°C by the end of the century. Additional modelling by the Commission indicates that even the most ambitious domestic scenarios modelled (High Technology, High Systems Change Scenario) are likely to achieve just under 0.002°C by the end of the century. As a result, the NDC2 target would need to be higher than the emissions reductions achieved in 2035 under the most ambitious domestic scenarios outlined by the Commission (HTHS). In the long-term, meeting this equity principle in the context of our international climate change targets would likely require a combination of domestic net-negative carbon dioxide emissions and substantial reductions in biogenic methane emissions and/or offshore mitigation.

[6] The Commission's interpretation of this perspective in its discussion document review of the 2050 emissions reductions target suggests that given New Zealand's levels and distribution of income, it would require deeper reductions than an equal per capita approach and potentially higher than a capacity approach. In addition, the Commission suggested that under this principle, much of the allowable global methane budget for a 1.5°C pathway should be reserved for those who are using it to meet their basic survival needs – e.g., subsistence farming of rice and livestock. As a result, this would require greater reductions from wealthier countries such as New Zealand.

Results

7. The results presented here are a summary of the main findings of the detailed analyses rather than an in-depth account of the methodology and associated limitations and assumptions. We can provide more detail as required.

8. Note these results are preliminary and will need to be updated using the final projection data published in New Zealand's first Biennial Transparency Report (BTR1).

Equal rate of reduction

9. The Commission's 2021 advice on NDC1 recommended that for NDC1 to be compatible with the 1.5°C goal, it would need to reflect emissions reductions much greater than the global average required.

10. Based on applying the same methodology for NDC2, an equal rate of reduction would require NDC2 to be greater than a point-year target of 46% (45% for upper quartile and 55% for lower quartile).

11. An equal rate of reduction using a subset of pathways that are based on a more sustainable socioeconomic global pathway would require NDC2 to be greater than a point-year target of 50%[7].

Analysis of equity principles

12. The illustrative NDC2 budgets and corresponding headline point-year targets for the equity principles assessed here are summarised below in Table 2[8].

[7] Because the scenarios that limit global warming to 1.5°C with no or limited overshoot in the AR6 database primarily represent SSP2 (Shared Socioeconomic Pathway 2 – a generic middle-of-the-road baseline scenario) we repeated the same analysis using scenarios defined as SSP1 only (which assumes a more sustainable socioeconomic global pathway). The equal rate reduction from this selection of modelled pathways would require NDC2 to be greater than a point-year target of 50% (not enough data to calculated interquartile range).
[8] The derived illustrative NDC2 budgets are based on data from the IPCC AR6 dataset which uses a different approach to accounting for net emissions than the net target accounting approach used to track New Zealand's domestic and international climate change targets. We have not sought to account for the difference in accounting approaches in this analysis – accounting for this difference could change the results presented.

Equity principle assessed	Methodological approach	Illustrative multi-year NDC2 budget (MtCO2e)[9]	Illustrative corresponding NDC2 headline point-year target (%)[9]
Equality	Equal per-capita emissions in 2035	159 (152-167)	82 (80-85)
	Equal per-capita emissions in 2040	216 (213-219)	61 (59-62)
	Equal per-capita emissions during 2031-35[10]	133 (122-144)	93 (88-97)
Capacity	Equal share of global mitigation cost based on UNEP Gap report	158 (150-161)	83 (82-86)
	Equal share of global mitigation cost based on average global emission reductions for 1.5°C[10]	168 (153-182)	79 (74-85)
Responsibility[11]	Equal per capita share of 1.5°C warming for New Zealand (See Table 1)	< Commission's HTHS Domestic Pathway	> Commission's HTHS Domestic Pathway
The Right to Sustainable Development[11]	See Table 1	< 159	> 79

Table 2. Summary of the main results from the equity principles assessed for alignment with contributing to limiting warming to 1.5°C. Brackets represent the interquartile range of the IPCC AR6 global 1.5°C pathways.

[9] The illustrative NDC2 budgets and corresponding headline point-year targets are calculated based on the assumption that NDC2 will take the same form as NDC1. As a result, the NDC2 targets and budgets highly sensitive to the net accounting emissions in 2030 and are likely to change substantially if emissions are significantly higher or lower than currently projected in 2030.

[10] The corresponding NDC2 headline point-year targets equal per-capita emissions during 2031-35 and equal share of global mitigation based on average global emissions reductions are highly sensitive to the net projected emission in 2030. If a more ambitious domestic trajectory is followed than currently projected (e.g., the domestic scenarios that will be outlined in the Commissions NDC2 advice due in October this year) the corresponding NDC2 headline point-year targets presented here will be lower

[11] These equity principles are based on a qualitative assessment as discussed in more detail in Table 1.

Summary of findings

13. Each of the above equity principles provides a perspective on aligning NDC2 with 1.5°C. These results can tell us what New Zealand's "fair share" of global emissions consistent with limiting warming to 1.5°C during the NDC2 period (2031-35) could be from that particular perspective.

14. Based on the results presented here, aligning strongly with the equity principles assessed would require an NDC2 emissions budget that is more ambitious than our current domestic budget for the same period (EB3 – currently set at 240 MtCO2e) and a headline target greater than ~80%.

Ministry for the Environment
Manatū Mō Te Taiao

Briefing: Summary of the Climate Change Commission's advice on NDC2

Date submitted: 25/10/2024
Sub Security level: In-Confidence
MfE priority: Urgent

Actions sought from Ministers		
Name and position	Action sought	Response by
To Hon Simon WATTS Minister of Climate Change	Note the briefing ahead of your meeting with the Climate Change Commission on 29 October 2024	29 October 2024

Actions for Minister's office staff
Return the signed briefing to the Ministry for the Environment (ministerials@mfe.govt.nz).

Appendices and attachments
1. Climate Change Commission's Advice on NDC2

Key contacts at Ministry for the Environment			
Position	Name	Cell phone	First contact
Principal Author	Tom Womack		
Responsible Manager	Meredith Davis	9(2)(a)	✓
General Manager	Hemi Smiler	9(2)(a)	

Minister's comments

Summary of the Climate Change Commission's advice on NDC2

Key messages

1. In June 2024, you requested a report from the Climate Change Commission's (the Commission) on how much reduction in domestic emission New Zealand could feasibly achieve as part of its second nationally determined contribution (NDC2), and where possible, the impacts associated with those emissions outcomes [BRF-5005 refers].
2. Your request was clear that the Commission's advice is only one input into a wider Government decision on NDC2. The Commission's advice outlines that they are not providing a recommendation of what NDC2 should be, and that their advice is only on one aspect of the factors that the Government needs to consider when making its decision on NDC2.
3. This briefing provides you with a summary of the Commission's advice on setting NDC2 ahead of your meeting with the Commission on 29 October 2024.

Summary

4. The Commission's advice was limited in scope to the following key objectives:
    i) Quantifying what reduction in domestic emissions New Zealand could feasibly be achieved over the NDC2 period based on their modelled domestic emissions reductions scenarios.
    ii) Describing, where possible based on available evidence and modelling, associated positive and negative impacts of the modelled domestic emissions reduction scenarios.

5. The Commission's key finding is that "it would be feasible to achieve greater net emissions reductions in the NDC2 period (2031–2035) than the NDC1 commitment, through domestic action alone."

6. The Commission also noted that:
    i) Actions to achieve these levels of emissions reductions would be needed before 2031.
    ii) Delays in taking action, or policies that promote higher emissions activities and behaviours, risk the indicated emissions reductions and removals becoming unachievable over the NDC2 period, and beyond.

7. The Commission's advice is based on their draft advice and modelling on emissions budget 4 (EB4) released in April 2024. It was not feasible for the Commission to use its modelling for its final advice, as this is still being finalised and will not be published until December.
8. The Commission's advice presents three draft scenarios of domestic emissions for 2022-2050 to understand what level of domestic emissions reduction could be feasibly achieved over the NDC2 period:
    i) Low Technology, Low Systems Change (LTLS) path - A scenario at the lower end of what is considered domestically achievable that assumes a lower level of change.
    ii) Draft EB4 demonstration path – A scenario that represents a central pathway.

iii) High Technology, High Systems Change (HTHS) - A scenario at the higher end of what is considered domestically achievable that assumes a higher level of change.

9. The Commission's analyses are based on superseded data sources which will be updated in its final advice on EB4. The draft modelled scenarios used in the Commission's NDC2 advice take into account government policies as of July 2023 (updated for changes made in the Government's first 100 day plan) and are based on data from the 2023 New Zealand Greenhouse Gas Inventory (GHGI).

10. New information, including the updated 2024 GHGI, net target accounting data, government policy (ERP2), emissions projections, and the feedback received through engagement on the Commission's draft advice EB4 will change the Commission's modelled scenarios. MfE can update the Commission's scenarios when the final EB4 modelling is published.

11. The Commission presented their results using a variety of different NDC accounting methodologies. For simplicity, we have presented their results using the same accounting methodology applied to NDC1, which is the way NDC2 headline targets[1] have been presented in our previous advice on NDC2.

12. The key results of the Commission's analyses are summarised below in Table 1.

Table 1 key findings from the Commission's NDC2 advice

Modelled Scenario	NDC2 Headline Target (%)	NDC2 Headline Target (%) (adjusted for BTR1 net target accounting)	Corresponding Emissions Budget (NDC2/EB3) (Mt CO2e)	Overachievement of EB3 required to meet budget (Mt CO2e)	Overachievement of EB2 (305Mt CO2e) required for domestic pathway (Mt CO2e)
LTLS	47%	51%	240	0	12
EB4 Demonstration Pathway	58%	n/a	205	35	27
HTHS	69%	n/a	165	75	45

13. Note the blue column is MfE's adjustment of the NDC2 Headline Target, to convert it into latest net target accounting emission projections used in BTR1. This difference is due to updates in the data sources used to calculate NDC2 headline target and differences in the modelled trajectory of emissions reductions between projections and the Commission's modelled LTLS pathway.

14. The Commission's advice is structured around the sectoral actions and impacts required from each of the six modelled sectors (energy, industrial processes and product use (IPPU), transport, agriculture, forestry and waste) for each of their modelled scenarios.

15. The key actions in the Commission's modelled scenarios that make a significant contribution to emissions reductions and removals across sectors in the NDC2 period are:

[1] The headline targets were calculated by the Commission assuming a linear trajectory from projected emissions in 2030 to 2035 using their calculated budgets for each modelled scenario over the EB3/NDC2 budget period (2031-35). The same emissions budgets would give a different NDC2 headline target (%) if calculated from the latest projected emissions used in BTR1 as they assume different levels of emissions for the starting points for the budget trajectory.

i) decarbonising road transport through electrification and mode shift;

ii) decarbonising process heat and production processes;

iii) changes to sheep, beef and dairy herd sizes through farmer choices related to land use, stock numbers and stocking rates alongside productivity improvements;

iv) low methane breeding for sheep and dairy;

v) expansion of geothermal carbon capture and reinjection;

vi) diversion of organic waste and landfill gas capture;

vii) maintaining high rates of afforestation;

viii) increased renewable electricity generation; and

ix) management of electricity system (including demand management and increased storage) to support decarbonisation across sectors.

16. These actions include a number of assumptions that are different to those modelled as part of the second emissions reduction plan (ERP2). ERP2 modelling is also based on more up to date data and information, including the 2024 Inventory, and latest projections.

17. While it has not been possible to fully analyse the difference in assumptions included in the Commission's modelled scenarios, notable differences include assumptions on:

    i) methanol production - ERP2 baseline assumes that Methanex trains would undergo a staged closure while the Commission's draft scenarios assume one methanol train closure by the end of 2029);

    ii) NZ steel electric arc furnace (EAF) operation – ERP2 baseline assumes that NZ Steel electric arc furnace starts operation earlier in 2025 while 2023 official projections assume that the EAF starts to operate from 2027;

    iii) Aluminium smelter operation – ERP2 baseline assumes Tiwai Point Aluminium Smelter will continue to operate until 2050 while 2023 projections assume that the smelter will close by 2024.

18. We will continue to analyse the Commission's advice and can provide additional information around the differences between the polices modelled as part of ERP2 and the Commissions draft modelled scenarios.

19. The Commission also estimated the economic impact of each draft scenario relative to their modelled reference scenario (a status quo scenario based on 2023 official projection)[2]. They found that GDP increased in all three scenarios between 2030 and 2035, and from 2022 onwards projected GDP under the different scenarios begins to diverge, reflecting emissions reduction and removal actions taken in the economy prior to 2031.

20. The Commission noted that the modelling of economic impact does not capture all costs and benefits associated with greenhouse gas emissions reductions and removals, with separate analyses showing substantial health benefits of decarbonising transportation. The Commission estimated that additional benefits from reduced air pollution over the 2031–2035 period (five-year total) of $2.3 billion (LTLS), $9.3 billion (EB4 demonstration path) or $12.1 billion (HTHS).

[2] The Commission's reference scenario is based on Government agency projections from polices as of 1 July 2023 but was updated to reflect policies removed in the Government's first 100 day plan.

21. MfE is undertaking economic analysis of different NDC2 options, building on our ERP2 modelling. We will provide this to you in our next briefing on NDC2 options in early November.

Recommendations

We recommend that you:

a. **note** the summary of the Climate Change Commission's advice on NDC2

b. **note** you are meeting with the Climate Change Commission to discuss their NDC2 advice on Tuesday, 29 October 2024

Signatures

Hemi Smiler
General Manager – Mitigation Policy
25 October 2024

Hon Simon WATTS
Minister of Climate Change
Date:

Ministry for the Environment
Manatū Mō Te Taiao

Document 5

Aide memoire: Cabinet Paper on NDC2 Process

Date submitted: 07 November 2024
Tracking number: BRF-5582
Security level: Policy and Privacy

Actions sought from ministers	
Name and position	***Action sought***
To Hon Simon WATTS **Minister of Climate Change**	Forward to the Associate Minister of Climate Change
CC Hon Nicola WILLIS **Associate Minister of Climate Change**	For noting only

Appendices and attachments
1. NDC2 Cabinet Paper 2. NDC2 document to support opportunity for public feedback

Key contacts at Ministry for the Environment			
Position	***Name***	***Cell phone***	***First contact***
Principal Author	Jessie Algar		
Responsible Manager	Meredith Davis		
General Manager	Hemi Smiler	9(2)(a)	✓

Cabinet Paper on NDC2 Process

Key messages

1. The attached Cabinet paper provides your colleagues with the context and background for how you are approaching the setting of NDC2.

2. Attached to the Cabinet paper is a document to inform public feedback, intended to be published on the Ministry's website alongside a feedback form. This is central to your three pronged approach to public engagement on NDC2:

   i. Targeted engagement with key stakeholders

   ii. Providing the public the opportunity for feedback via a form on the Ministry for the Environment website, supported by the document attached to the Cabinet paper.

   iii. Market research: The Ministry for the Environment will conduct market research on the public's views on the extent to which NDCs should be achieved domestically, and what role if any international cooperation should play.

3. We are working with your office on arrangements for either you or the Associate Minister of Climate Change to take the paper to Cabinet Committee on the 13th of November.

4. This is one of two Cabinet Papers you will put up this year on NDC2. The second Cabinet paper will ask Cabinet to make decisions on setting NDC2.

5. We will work with you while you are at COP29 on landing decisions on NDC2 and the decisions Cabinet paper.

6. The proposed timeframes for this work are as follows:

NDC2 Process Cabinet Paper	
ECO Committee	13 November 2024
Cabinet	18 November 2024
Opportunity for public feedback goes live	18 November – 8 December 2024
NDC2 Decisions Cabinet Paper	
Ministerial Consultation	4 – 10 December 2024
CPMG	9 December 2024
Lodge	12 December 2024
ECO Committee	18 December 2024
Cabinet	Late January 2025
Announce NDC2	Before 10 February 2025

7. In the proposed timeline above, Ministerial consultation overlaps with the period that the opportunity for public feedback will be open. Consequently, we will ensure that the materials circulated for Ministerial consultation note that the recommendations are subject to change following further public feedback and analysis of that feedback, and we will recirculate amended material if any changes are made.

Signatures

Hemi Smiler
General Manager – Climate Change Mitigation
6 November 2024

Hon Simon WATTS
Minister of Climate Change
Date:

In confidence

Office of the Minister of Climate Change

Cabinet Economic Policy Committee

Process for setting New Zealand's second Nationally Determined Contribution

Proposal

1 This paper informs Cabinet of the process I intend to follow for setting New Zealand's second Nationally Determined Contribution (NDC2) and seeks Cabinet's agreement to the Ministry for the Environment providing an opportunity for public feedback on NDC2 via the Ministry for the Environment website.

Relation to government priorities

2 This proposal relates to New Zealand's obligations as a signatory to the Paris Agreement on climate change, which requires us to submit Nationally Determined Contributions to global climate action.

Background

3 In addition to our domestic emissions reduction and net zero targets, New Zealand is also a signatory to the Paris Agreement on climate change.

4 Nationally Determined Contributions are international emissions reduction targets under the Paris Agreement and are its main mechanism to keep the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C. The Paris Agreement requires Parties to set NDCs five yearly.

5 We are in the first NDC period (2021-2030). New Zealand's NDC1 is to reduce net emissions by 50% below gross 2005 levels by 2030[1], which corresponds to the first and second domestic emission budgets.

6 Parties to the Paris Agreement, including New Zealand, are required to communicate NDC2 by 10 February 2025. NDC2 will cover the period 2031-35.

7 Under the Paris Agreement, a country's NDC2 must:

7.1 represent a progression beyond their NDC1

[1] NDC1 is managed as an emissions budget over 2021-2030 which will be updated to 579 $MtCO_2e$ (from the previous amount of 571MT).

7.2 represent the country's *highest possible ambition, reflecting its common but differentiated responsibilities and respective capabilities, in the light of different national circumstances."*[2]

7.3 be informed by the outcomes of the latest Global Stocktake[3]

7.4 be set with a view to achieving the purpose of the Paris Agreement, including the temperature goal to limit warming to well below 2°C and pursue efforts to limit global average temperate rise to 1.5°C above pre-industrial levels.

Principles for developing New Zealand's NDC2

8 New Zealand's emissions profile is distinct among developed countries with agriculture accounting for over half of total emissions, largely driven by methane from livestock. New Zealand has world leading sustainable farming practices, we are a pioneer in innovative agritechnology, and a leader in renewable energy.

9 New Zealand's NDC2 will be scrutinised both domestically and internationally. At this stage, few countries have signalled their intentions, but I anticipate that New Zealand, as a developed country, will be expected to submit an ambitious NDC. NDCs are expressed as all gas targets, though countries can decide what they expect each gas to contribute.

10 I have sequenced NDC2 to follow Cabinet decisions on the ERP2, to provide clarity on the amount of emission reductions achievable in the next five years and to ensure alignment with the Government's climate strategy.

11 In my view, NDC2 needs to be deliverable primarily through domestic action, and through the upcoming third Emissions Reduction Plan (to be set in 2029 to achieve Emissions Budget 3, 2031-2035).

12 New Zealand's NDC1 is significantly more ambitious than our domestic target for the same period, 9(2)(g)(i) [redacted] Aligning NDC2 with the already set Emissions Budget 3 level 9(2)(g)(i) [redacted] would create coherence between our domestic and international climate targets and improve deliverability of both.

13 For this reason, I asked the Climate Change Commission ('Commission') to provide me with a report on how much emission reduction can be achieved domestically in the NDC2 period. I tabled the Commission's report in the House on the 7th of November 2024.

[2] Paris Agreement, Article 4(3).
[3] Article 14 of the Paris Agreement establishes a 5-yearly process to take stock of the implementation of the Paris Agreement. The first Global Stocktake concluded in 2023. Key outcomes included noting with significant concern that the world is not on track to achieving the temperature goal, and emphasis the need for urgent action to keep 1.5°C within reach.

14 The Commission's report confirms that it is possible for NDC2 to be achieved domestically and also be a progression on NDC1.

15 The Paris Agreement allows us to express our NDCs as ranges. This is similar to the way we currently express our domestic methane target (24%-47%) and gives flexibility to the government to balance ambition and achievability, noting that this target is for a period not starting till 2031 and not ending till 2035.

16 The Ministry for the Environment is currently undertaking targeted engagement on NDC2 with key stakeholders and partners including primary sector representatives, major electricity users, iwi/Māori groups, environmental NGOs and youth representatives, and Tokelau (which is included in New Zealand's NDCs).

17 There is likely to be wider public interest in NDC2. Given that likely interest, I have asked the Ministry for the Environment to make the Commission's report accessible on its website and provide an opportunity for the public to answer some high level questions ahead of setting NDC2. The Ministry has prepared a document to inform public feedback, including some key questions, attached as Appendix 1. It does not set out a preferred government position.

18 The proposed document to inform public feedback includes a simplified summary of the Commission's report, which is primarily technical analysis. The Ministry for the Environment is currently fact checking its representation of the Commission's report with the Commission, and will correct any errors prior to publication. The Ministry will also carry out a general plain language edit on the document prior to publication.

19 Given the level of public interest I believe the government exposes itself to significant political risk if it is not providing an opportunity for public input in some form. The opportunity for public input will be live for three weeks, from 18 November – 8 December.

20 The Ministry for the Environment also intends to conduct market research on the public's views on the extent to which NDCs should be achieved domestically, and what role if any international cooperation should play.

21 When this is completed, I will report to Cabinet with a proposal for New Zealand's NDC2. I expect to release this for extensive Ministerial consultation, and for Cabinet to consider this in late December or late January. The December meeting of the Climate Priorities Ministerial Group is also set to discuss this issue.

22 In asking Cabinet to consider a final decision, I will provide comprehensive analysis to support the decision which will include full analysis of all relevant matters such as national interest, unique circumstances, and fiscal impacts.

Cost-of-living Implications

23 This paper has no direct cost of living implications.

Financial implications

24 This paper has no direct financial implications.

Legislative Implications

25 This paper has no direct legislative implications.

Human Rights

26 There are no inconsistencies between NDC2 and the New Zealand Bill of Rights Act 1990 or the Human Rights Act 1993.

Use of External Resources

27 No external resources were used to prepare this Cabinet paper.

Recommendations

The Minister of Climate Change recommends that the Committee:

1 note that under the Paris Agreement, New Zealand's second Nationally Determined Contribution (NDC2) needs to be set before 10 February 2025

2 note that the Ministry for the Environment is undertaking targeted engagement with stakeholders and partners on NDC2

3 agree that there will be an opportunity for public feedback on NDC2 via the Ministry for the Environment website, with a document to inform public feedback that includes some key questions, attached as Appendix 1

4 note that the document to inform public feedback includes a Ministry-drafted summary of the Commission's report

5 note that the Ministry is currently fact checking its representation of the Commission's report and will correct any errors prior to publication of the document on its website

6 note that the Ministry will carry out a plain language edit on the document to inform public feedback prior to publication

7 note that the Ministry for the Environment also intends to conduct market research on the public's views on the extent to which NDCs should be achieved domestically, and what role if any international cooperation should play

8 note that on Monday 9 December, the Climate Priorities Ministerial Group will meet to discuss New Zealand's approach to setting NDC2

9 note that I will report back to Cabinet in December 2024 recommending the NDC2 target, informed by further analysis and input from engagement.

Hon Simon Watts

Minister of Climate Change

Appendix 1: Aotearoa New Zealand's 2035 international climate change target (document to inform public feedback)

Final version publicly available at: https://environment.govt.nz/publications/opportunity-for-public-feedback/

Ministry for the Environment
Manatū Mō Te Taiao

Document 6

Briefing: Options for the NDC2 target level

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Actions sought from Ministers		
Name and position	***Action sought***	***Response by***
To Hon Simon WATTS **Minister of Climate Change**	**Note** the contents of this briefing and discuss with officials	11 November 2024

Actions for Minister's office staff
Return the signed briefing to the Ministry for the Environment (ministerials@mfe.govt.nz).

Appendices and attachments
1. Further technical details

Key contacts at Ministry for the Environment			
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Minister's comments

Options for the NDC2 target level

Key messages

1. This briefing follows from our earlier briefing on setting Nationally Determined Contribution 2 (NDC2) [BRF-5347 refers]. It outlines options for the level of NDC2 under the Paris Agreement, assessed against a range of criteria. It also lays out different approaches for the form of NDC2, including the option to set the target as a range.

2. The options range from ~51%, which aligns closely with the current level of New Zealand's third emissions budget (EB3), to 70% +, which would provide a stronger contribution to the 1.5°C temperature goal of the Paris Agreement. We have presented options in approximately 5% increments but any intermediate option is viable.

3. Ministers will need to make judgements to determine which option best represents New Zealand's highest possible ambition for NDC2. To support this, we have assessed against three criteria:

    i. NDC2 is considered a sufficient contribution to the Paris Agreement temperature goal by key partners and the global community

    ii. NDC2 can be feasibly implemented and support New Zealand's long-term transition and 2050 target

    iii. The fiscal and economic costs of meeting NDC2 are acceptable.

4. We have used analysis of IPCC principles for sharing the 1.5°C global effort, comparisons to the global average reductions required to achieve the temperature goal, and consistency with expected NDC2 targets 6(a) We expect higher targets will be judged more sufficient than lower ones.

5. We have assessed feasibility of implementation based on the Climate Change Commission's (the Commission) advice on what level of emissions reduction could be technically achievable in the NDC2 period, as well as current progress towards EB3 and ability to access offshore mitigation. While you have indicated your preference is for NDC2 to be met primarily domestically, we have included offshore mitigation in our analysis to provide a full account of potential feasibility and trade-offs.

6. The Commission's key finding is that "*it would be feasible to achieve greater net emissions reductions in the NDC2 period (2031–2035) than the NDC1 commitment, through domestic action alone*." This would require policy shifts to deliver the actions the Commission has identified, noting some of these are misaligned with current policy direction.

7. Ultimately, target options at the lower end of the spectrum are likely to be more feasible to implement while higher targets will be more challenging but may be technically possible. Ministers will need to make a judgement on what level of emissions reduction is considered feasible.

8. The cost of meeting NDC2 depends on whether it is intended to be met through domestic action, through international mitigation, or a mix of both. In general, the higher the NDC2 target, the higher the cost.

9. Achieving an NDC2 target of 51% through domestic action is modelled to reduce GDP in 2035 by around 0.1% (a total cost of $1.7 billion over the NDC2 period); a target of 65% is modelled to reduce GDP in 2035 by 0.9% (a total cost of $11.8 billion over the period). Conversely, achieving these targets through international mitigation is estimated to cost between $0.5 - $1.4 billion (51% target), and $1.8 - $5.0 billion (65% target). Note these numbers are preliminary as we are still confirming the results with other agencies, including the Treasury.

10. When setting the NDC2 target level, the Government will also need to decide whether to set the target as a single point-year target for 2035, or whether to manage NDC2 as a multi-year emissions budget (like NDC1). The most suitable approach likely depends on the preferred target level.

11. We understand you are interested in options that involve setting NDC2 as a range, to help signal ambition while providing flexibility for New Zealand's overall delivery to respond to evolving circumstances (such as any future decisions on the 2050 target following the Methane Science and Targets Review and when certain technologies become available). The target options presented here could inform the high and low bounds for an NDC2 range.

Recommendations

We recommend that you:

a. **note** that you will get further information and analysis over the next month, including from the targeted engagement and public feedback, which will help inform your decisions on the NDC2 target

b. **note** the Government will need to make a judgement about New Zealand's highest possible ambition for NDC2

c. **note** the target level options identified in Table 1 and how they align with different objectives for NDC2

d. **indicate** which options you would like to present to Ministerial colleagues for discussion at CPMG and have included in the Cabinet paper on NDC2 decisions

Yes | No

e. **indicate** whether you would like to include the option of setting NDC2 as a range for discussion at CPMG and have this option included in the Cabinet paper on NDC2 decisions

Yes | No

Signatures

Hemi Smiler
General Manager – Climate Change Mitigation
7/11/2024

Hon Simon WATTS
Minister of Climate Change
Date

Options for the NDC2 target level

Purpose

1. This briefing outlines options for the level of New Zealand's second nationally determined contribution (NDC2) under the Paris Agreement, assessed against a range of criteria. It also lays out options for the form of NDC2, including the option to set the target as a range.

2. We are seeking your direction on the options in this briefing and your preferred approach to seeking Cabinet decisions on NDC2.

3. Your direction will inform development of material for discussion at the Climate Priorities Ministerial Group (CPMG) and an NDC2 Cabinet paper.

4. Finally, Appendix 1 includes further details on the Climate Change Commission's NDC2 advice, including responses to your questions on BRF-5540.

Background

5. On 14 October 2024 officials provided you with advice on key considerations and choices for the Government when setting NDC2 [BRF-5347 refers]. This briefing builds on that advice to present options for the NDC2 target level, assessed against a range of criteria, as well as options for the form of NDC2.

6. We are seeking your direction on these options and how you would like to approach Cabinet decisions on NDC2. Cabinet consideration of NDC2 is currently planned for January 2025, following discussion at ECO on 18 December and CPMG on 9 December.

7. The process to prepare for Cabinet consideration of NDC2 is well underway. In recent weeks, evidence has become available to support the Government's consideration of NDC2. This includes the Climate Change Commission's (the Commission) advice [BRF-5540 refers] and the results of economic modelling. Targeted engagement on NDC2 is also underway, and we are working with PMO, DPMC and your office to progress the opportunity for public feedback.

Analysis and advice

Options for the NDC2 target level

8. The Paris Agreement sets out that NDC2 will be a 'progression' beyond NDC1 and to represent each Party's *"highest possible ambition, reflecting its common but*

differentiated responsibilities and respective capabilities, in the light of different national circumstances".[1]

9. Determining New Zealand's highest possible ambition is a judgement for Ministers. Factors that may inform this judgement were outlined in BRF-5347, along with further explanation of the Paris Agreement requirements.

10. We have identified options for the target level, ranging from ~51%, which aligns closely with the current level of New Zealand's third emissions budget (EB3), to 70% +, which would provide a stronger contribution to the global 1.5°C temperature goal.

11. To support Ministers to consider how different target level options relate to New Zealand's highest possible ambition, we have assessed each option against the three objectives for NDC2 [BRF-5347 refers]:

    i. NDC2 is a considered a sufficient contribution to the Paris Agreement temperature goal by key partners and the international community

    ii. NDC2 can be feasibly implemented and support New Zealand's long-term transition and 2050 target

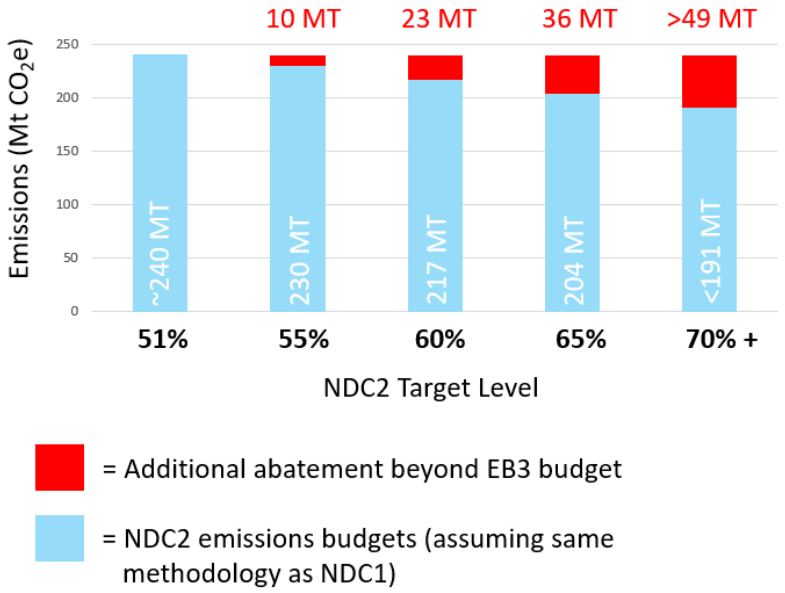
    iii. The fiscal and economic costs of meeting NDC2 are acceptable.

12. There are trade-offs between these objectives, which the Government will need to consider. A higher NDC2 target will provide a stronger contribution to the global 1.5°C effort but will have higher direct costs and be more challenging to deliver, which may impact the Government's assessment of New Zealand's highest possible ambition.

13. Figure 1 illustrates the NDC2 emissions budget that correspond with each option (blue), assuming the same methodology is used as for NDC1. Emissions reduction that would be needed beyond EB3 is shown (red).

14. We note that the emissions budgets presented in this briefing should be treated as indicative as the calculations use current emission projections for 2030, and the budgets will change as projections are updated.

Figure 1. Options for the NDC2 target level



15. We have presented options in approximately 5% increments but any intermediate option is viable. We understand you are interested in setting the NDC2 target as a range, as discussed further below. The options have been presented in the same way as the NDC1 target – a point year target managed through a multi-year emissions budget – but you also have choices on the form of the NDC2 target.

16. The results of our assessment of the options against the above objectives and criteria are presented in the table on the following page.

Table 1: Assessment of different NDC2 target options

Objective	Criterion	Option 1: ~51% Indicative NDC2 budget: ~240 $MtCO_2e$ Reductions beyond EB3: 0 $MtCO_2e$	Option 2: 55% Indicative NDC2 budget: 230 MtCO2e Reductions beyond EB3: 10 MtCO2e	Option 3: 60% Indicative NDC2 budget: 217 MtCO2e Reductions beyond EB3: 23 MtCO2e	Option 4: 65% Indicative NDC2 budget: 204 MtCO2e Reductions beyond EB3: 36 MtCO2e	Option 5: 70% + Indicative NDC2 budget: <191 MtCO2e Reductions beyond EB3: >49 MtCO2e
1. NDC2 is considered a sufficient contribution to the Paris Agreement temperature goal by key partners and the global community	**Overall assessment of this objective 1**	**Least likely to be considered sufficient** → **Most likely to be considered sufficient**				
	Aligned with IPCC equity principles for sharing 1.5°C global effort	Low alignment → Moderate alignment (strong alignment from ~80% +)				
	Comparison to global average reductions required to achieve 1.5°C (if all countries took equal effort)	Consistent with average global reductions required for 1.5°C (below expectation of NZ as a developed country)	Above global average but potentially below expectation of NZ as a developed country	Well above global average and likely more in line with expectation of NZ as a developed country as above	Well above global average and more in line with expectation of NZ as a developed country as above	Significantly above global average and consistent with expectation of NZ as a developed country
	6(a)					
2. NDC2 can be feasibly implemented and support New Zealand's long-term transition and 2050 target	**Overall assessment of objective 2**	**Most feasible to implement** ← **Challenging – feasible only with significantly enhanced action**				
	Feasible through domestic action	Current projections have emissions exceeding EB3 by 11 $MtCO_2e$. There is time for new policies to be identified that could close this gap. Also achievable under the Commission's LTLS scenario.	Requires new policies to drive additional abatement or favourable technological developments. Higher target options will require more significant changes. Also potentially achievable in Commission's EB4 demonstration path and HTHS scenario, but not under LTLS.			Requires substantially more abatement than current projections. Major policy changes and favourable technology changes required. Unlikely to be achievable in Commission's modelled scenarios.
	Feasible through offshore mitigation	Not necessary – EB3 is required to be met through domestic action.	Gap between EB3 and NDC target technically feasible to be met through international cooperation.			May be challenging to source this volume of international mitigation.
3. The fiscal and economic costs of meeting NDC2 are acceptable	**Overall assessment of objective 3**	**Least costly** → **Most costly**				
	Anticipated total cost *(Numbers are preliminary)*	**Target must be met domestically.** 0.1% reduction in GDP in 2035 (GDP is $1.7 billion lower over NDC2 period)	**If met domestically:** 0.3% reduction in GDP in 2035 ($3.5 billion over NDC2 period) **If met through international cooperation:** $0.5 - $1.4 billion	**If met domestically:** costs not modelled, cost would sit between options 2 and 4 **If met through international cooperation:** $1.1 - $3.2 billion	**If met domestically:** 0.9% reduction in GDP in 2035 ($11.8 billion over NDC2 period) **If met through international cooperation:** $1.8 - $5.0 billion	**If met domestically:** Not modelled but economic costs would be high. **If met through international cooperation:** $2.4 - $6.9 billion

Discussion of target level options

17. Ministers need to judge which option is New Zealand's highest possible ambition for NDC2. The following sections discuss how each objective is met by the different options.

18. In accordance with the Paris Agreement, the suitability of the options will need to be considered in the context of New Zealand's national circumstances, alongside the outcomes of the Global Stocktake and wider factors [see BRF-5347 and its appendices]. We consider that a 'progression' on NDC1 could be met by all options presented.

Objective 1: NDC2 is considered a sufficient contribution to the Paris Agreement temperature goal by key partners and the global community

19. The temperature goal of the Paris Agreement is to limit warming to well below 2°C and pursue efforts to limit global average temperature rise to 1.5°C. New Zealand will need to demonstrate to our key partners and the global community that its NDC2 represents a sufficient contribution to the Paris temperature goal.

20. Part of this demonstration will be that NDC2 represents a 'fair share' contribution to the global 1.5°C effort. There is no prescribed way to determine this, but the IPCC recommends this be considered in the light of the equity principles such as equality, capacity, responsibility, and the right to sustainable development [BRF-5347 refers]. New Zealand will be required to provide information on how fairness considerations have informed decisions on NDC2.

21. Strong alignment with 1.5°C under these equity principles would require a target significantly higher than we consider realistic to achieve (> ~80%). However, the strength of alignment increases as the ambition of the target option increases (shown by the greyscale arrow in Table 1). The findings from analysis of equity principles is useful for informing decisions, as the Paris Agreement states it "will be implemented to reflect equity" and New Zealand will be required to provide information on how fairness considerations have informed decisions on NDC2.

22. However, it is important to note the limitation that these principles do not take into account the full range of circumstances that are relevant when making a judgement on highest possible ambition. For example, New Zealand's high share of renewable electricity and unique emissions profile, where over half of emissions are from pastoral livestock and there are few commercially available mitigation solutions, could be considered [BRF-5347 Appendix 1 refers].

23. We have also compared each option to the overall level of reduction needed in global emissions to achieve 1.5°C – that is, what would be required if all countries made an equal effort. All options are consistent or above the average reduction needed globally, with higher options exceeding this further. 6(a) [redacted]

6(a)

24. Other countries are likely to assess the sufficiency of New Zealand's NDC2 target as a contribution to the global effort to pursue 1.5°C, in part, by how the headline target level compares to other developed nations. Nevertheless, direct comparisons between different NDC targets is difficult – it is important to consider differences in countries' national circumstances and the way their targets have been set (eg, using gross-net or net-net targets, different baseline years).

25. We note that international expectations are likely to continue evolving up to and past the February 2025 deadline for NDC2 submissions. 6(a) Ministers will need to make a judgement on how to position New Zealand relative to other countries.

Objective 2: NDC2 can be feasibly implemented and support New Zealand's long-term transition and 2050 target

26. We have assessed feasibility of each option based on two criteria: 1) whether it is feasible with domestic action, based on comparison with projected emissions in the NDC2 period based on policy direction in ERP2 and the Commission's modelling and analysis of what could be technically achievable under different scenarios, and 2) the technical feasibility of access to offshore mitigation.

27. Targets at the lower end of the range are likely to be more feasible to implement while higher targets will be more challenging. 'Feasibility' is ultimately a subjective term and Ministers will need to make a judgement on what level of emissions reduction is considered feasible in light of the evidence.

Feasibility through domestic measures

28. Option 1 gives an emissions budget that is closely aligned to EB3 (240 $MtCO_2e$) and so would be the most feasible to implement, given we are already required to reduce emissions to this level domestically.

29. There are still challenges to meet EB3 – the projections prepared for the second emissions reduction plan show emissions during 2031-35 are expected to exceed the budget by around 11 $MtCO_2e$. Additional policies are expected to be required to help close this gap.

30. In its advice on NDC2, the Commission found that "it would be feasible to achieve greater net emissions reductions in the NDC2 period (2031–2035) than the NDC1 commitment, through domestic action alone". The Commission identified a range of changes that would result in additional domestic abatement that they consider are technically feasible, though they did not recommend how to achieve these changes.

31. The largest differences between the scenarios presented in the Commission's advice and ERP2 projections are in the transport and agricultural sectors. In particular, the

6(a)

Commission has substantially higher uptake of EVs by 2035 and lower dairy cow numbers than we are modelling.

32. As such, while higher NDC2 targets are achievable through domestic action, policy changes or favourable technological progress will be required to achieve this – with more ambitious targets requiring more significant developments. High NDC2 targets (such as option 5 – 70%+ target) are likely to only be achievable through domestic measures only if there are both substantial policy changes and major technology breakthroughs, and action towards them taken before the NDC2 period.

33. This means that achieving NDC2 targets above the level of EB3 domestically is likely to require some level of overachievement of EB2. The earlier any further policy measures are put in place, the more ambitious target that will be achievable through domestic measures.

34. The outcomes from the methane science and target review and the Commission's advice on the 2050 target may impact what is required domestically. Any decisions to change the 2050 target and what is required domestically (including in EB3), will have implications for achieving NDC2. Given you will receive the final report from the methane science and target review and the Commission's advice on the 2050 target at the end of November, there will be limited opportunity to formally take these into account when setting NDC2. This is also discussed in the briefing *Process update: Methane Science and Target Review* [BRF-5493 refers].

Feasibility through offshore mitigation

35. While you have indicated your preference is for NDC2 to be met domestically, we have included offshore mitigation in our analysis to provide a full account of potential feasibility and trade-offs.

36. It is worth noting that globally, there may be an international trend towards more use of offshore mitigation for NDC2 and therefore greater accessibility to offshore mitigation for NDC2 than NDC1. The Article 6 market for NDC-eligible offshore mitigation is maturing, with several new implementation arrangements entering into force, significant capacity building effort, and a focus on the rulemaking process at COP29.

37. We understand some countries with domestic-focused NDC1s are considering the use of offshore mitigation for their NDC2s and future NDCs. This is due to increasing domestic costs as countries face their most difficult to abate sectors. 6(b)(i)

38. Early preparation for NDC2 and continued effort towards international cooperation for NDC1 could support New Zealand to access offshore markets. Offshore mitigation contracted across both NDC1 and NDC2 is likely to be cheaper towards both targets. Large mitigation projects with a long lead time of around 2-5 years are also more feasible for NDC2, such as early coal retirement projects.

Objective 3: The fiscal and economic costs of meeting NDC2 are acceptable

39. The cost of meeting NDC2 depends on whether it is intended to be met through domestic action, through international cooperation, or a mix of both.

40. In general, the higher the NDC2 target, the more costly it is likely to be. The acceptability of costs will require a subjective judgement by Ministers. This will need to be made in consideration of New Zealand's capabilities and national circumstances in accordance with the Paris Agreement.

Economic cost of domestic action

41. For domestic action, we have estimated the costs using the same computable general equilibrium (CGE) model used for ERP2. We have modelled three scenarios, aligned with option 1 (51% target – aligned with EB3), option 2 (55% target) and option 4 (65% target).

42. Table 2 below sets out the modelled economic costs for these options, relative to the ERP2 final policy scenario. Further detail is provided in Appendix 1. Note that these modelling results are still preliminary and subject to change as we are still confirming the results them with other agencies, including the Treasury.

Table 2. Modelled costs relative to ERP2 final policy scenario

		Impact relative to ERP2 Policy Scenario	
	Emissions target ($MtCO_2e$)	**Percent change in real GDP - 2035**	**$ change in real GDP over NDC2 period, 2023 dollars**
Option 1 - 51% target	240	-0.1%	-$1.7 billion
Option 2 - 55% target	230	-0.3%	-$3.5 billion
Option 4 - 65% target	204	-0.9%	-$11.8 billion

43. These economic costs are presented relative to the ERP2 final policy scenario; however, as discussed above, this scenario has net emissions exceeding EB3 by about 11 $MtCO_2e$. Assuming that policies will be put in place to ensure EB3 is met (since this is a requirement under the CCRA), the *additional* abatement required to achieve a given NDC2 target domestically is about 11 $MtCO_2e$ less than what has been modelled. This reduces the GDP impact of the options by about 0.1 percentage points. In the case of Option 1, there is no marginal GDP impact since no additional abatement is required over what is required to achieve EB3.

44. Due to time constraints, we have not modelled the costs of option 3 (60% target) or option 5 (70% target). We expect the costs for option 3 to sit between those for options 2 and 4 (GDP about 0.6% lower in 2035). For option 5, as discussed above, this would

be a challenging target to meet solely through domestic measures so modelled costs are of limited utility.

45. As with all modelling, this work has limitations and there are many uncertainties. A key uncertainty is technological developments – if emissions reduction technologies become available sooner than expected (such as a methane inhibitor for dairy cows) or at a lower cost (such as significant price reductions for EVs) then the cost of a given level of emissions reductions would be lower.

46. Finally, this modelling does not include any co-benefits such as from reduced air pollution from decarbonising transportation. The Commission's advice on NDC2 suggests this co-benefit can be substantial – they estimated this additional benefit over the NDC2 period as being valued between $2.3 billion and $12.1 billion, depending on the scenario.

Cost of offshore mitigation

47. For offshore mitigation, we constructed three price scenarios based on assumed emissions prices reported in the International Energy Agency (IEA) World Economic Outlook 2024 publication. This suggests that the average price of offshore mitigation during the 2031 to 2035 period could range between NZ$60 to NZ$173 per tonne (in 2023 terms).[3]

48. Table 3 below shows the cost range between the high and low scenarios (in present value terms) for the different NDC2 target options, assuming the mitigation is purchased evenly throughout the NDC2 period.

Table 3: Offshore mitigation cost range between the high and low scenarios

	NDC2 target level (%)				
	51	**55**	**60**	**65**	**70**
Additional mitigation above EB3 ($MtCO_2e$, assumed offshore)	0	9.66	22.65	35.65	48.64
Cost range between scenarios (PV, 2023$ billion)	**0**	**$0.5 - $1.4**	**$1.1 - $3.2**	**$1.8 - $5.0**	**$2.4 - $6.9**

49. These results are indicative and sensitive to assumptions, including the timing of purchasing – we would expect higher costs if offshore mitigation was purchased near the end of the NDC2 period. The price trajectory suggests the Government could source cheaper offshore mitigation by contracting before 2031 (i.e. for both NDC1 and NDC2). Offshore mitigation would also include costs other than the purchase price, such as

[3] This approach is broadly consistent with the Climate Economic and Fiscal Assessment (CEFA) 2023 report produced by the Treasury and MfE, updated as appropriate.

establishment costs and an Overall Mitigation in Global Emissions (OMGE)[4] contribution expected under Article 6 rules, which are not considered in these price scenarios.

Options for the form of NDC2

50. Below we provide additional information on options for the form of the NDC2 target, including whether to use a single year target or a budget approach and whether to express the NDC2 target as a range or a fixed number.

Single year target vs budget approach

51. When setting NDC2 the Government will need to decide what form the target will take. There are two broad approaches for the form of the NDC2 target:

    i. **Headline point year target managed with a multi-year emissions budget.** This mirrors the NDC1 approach. The headline percentage reduction (ie. 50% by 2030 for NDC1) is converted into a multi-year emissions budget covering the NDC period. Whether the NDC is met depends on whether our emissions stay within that budget over the period, rather than measuring our emissions in the final year.

    ii. **Single point-year headline target.** Under this approach, NDC2 would be a target to be achieved by 2035. There would be no NDC2 emissions budget – whether the NDC2 is met would depend on whether emissions in 2035 are below the target level. This would require changing from the approach used for NDC1.

52. New Zealand is one of only a few countries which manage their NDC1 target as a multi-year emissions budget. Most countries manage their NDCs as a single point-year headline target as this approach is relatively simple. There are pros and cons of each approach, as summarised in Table 4 below.

53. The most suitable approach for NDC2 target form is likely to depend on the ambition of the target, choices around alignment with domestic emissions budgets and whether offshore mitigation is intended to be used to meet it.

54. We recommend you consider your preferred form for the NDC2 target alongside your preferred ambition for the target. We also recommend that the approach for the target form be tied to options for the target level when seeking Cabinet decisions.

[4] OMGE are emissions reductions that are not counted towards any country's target. They are considered a 'gift' to the atmosphere. They are mandatory under Article 6.4 (at 2%) and encouraged under Article 6.2.

Table 4: Different approaches to the form of the NDC2 target — pros and cons		
	Approach 1: Multi-year emissions budget approach	***Approach 2: Single point-year target***
Pros	• Same approach as NDC1, giving greater comparability between successive targets. • Could help manage progress towards the NDCs over time, to avoid sudden reductions being needed in the final year. • Allows for inter-annual variability in emissions (eg. dry hydro years or forestry harvest cycles). • High environmental integrity as emissions in every year are accounted for. • Simplifies how offshore mitigation is counted towards the NDC (if used).	• Could help simplify New Zealand's climate targets, including monitoring and reporting progress, as there would no longer be two types of emissions budgets covering the same time period (the domestic emissions budget and NDC emissions budget). • Simplifying New Zealand's targets could result in a more manageable workload for officials as it would simplify monitoring and reporting against targets, and would be easier to understand for the public. • Aligns with most other countries, making it easier to compare NDC ambition and progress.
Cons	• If NDC2 intends to align with EB3 – under UNFCCC rules, the NDC2 emissions budget is provisional and updated in each biennial transparency report to reflect the most up to date inventory. This means the NDC2 budget could become misaligned with EB3, leading to NZ having two very similar but different budgets covering the same time period (which would likely be confusing).	• Progress towards the point-year NDC2 target for 2035 could be managed using the existing domestic emissions budget, however there is a risk that emissions could exceed the NDC2 target in 2035 while still meeting EB3 over the period as a whole.[5] • This is a change in approach from NDC1. 9(2)(g)(i) [redacted]

Setting the NDC2 target as a range

55. We previously advised you that it it is possible to set NDC2 as a range, in order to signal ambition while providing flexibility for New Zealand's overall delivery to respond to evolving national circumstances, such as any future decisions on the 2050 target following the Methane Science and Targets Review, when certain interventions become available, and the Commission's advice on the 2050 target, and EB4.

56. Ranges have been used in a very small number of NDC1 commitments (USA, Canada and several developing countries) to account for the inherent uncertainty in modelling and achievement of emissions reduction. 6(a) [redacted]

[5] Although unlikely, EB3 could theoretically be met even with high emissions in 2035, if emissions had been sufficiently low in 2031-2034.

6(a) [redacted]

Other considerations

Implications for NZ ETS settings

57. The Government's decisions on NDC2 will have implications for future decisions on NZ ETS settings in 2025 and beyond. Section 30GC(2)(a) of the Climate Change Response Act (2002) requires you to be satisfied that ETS settings are "in accordance" with the emissions budgets and NDCs that have been set at the time ETS settings decisions are made.

9(2)(g)(i) [redacted]

Upcoming emissions budget decisions

59. The Government will be required to set EB4 next year, and as part of this will have the opportunity to revise EB3. We note that the Commission is expected to advise the Government to revise EB3 downwards – its draft advice was to lower EB3 from 240 to 221 $MtCO_2e$. The Commission's final advice is due by 31 December 2024. We understand that it is planning to provide this to you in late November.

60. NDCs can be updated at any time to represent an increase in ambition. If the Government decides is made to revise EB3 to be more ambitious, the Government should also consider revising NDC2 to ensure it remains consistent with the Paris Agreement requirement for highest possible ambition.

Consultation and engagement

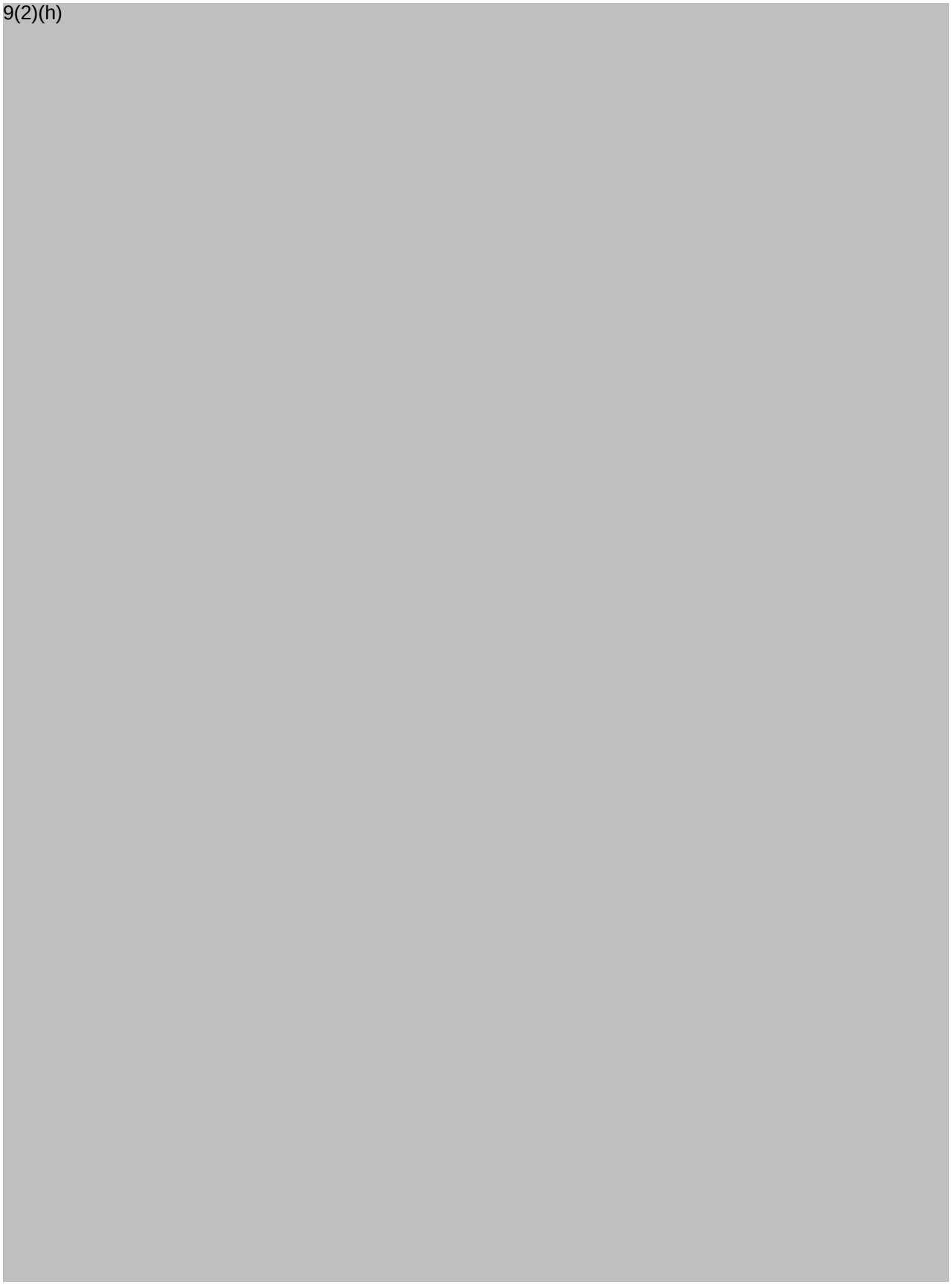
61. The Treasury, MPI, MFAT, MBIE and the Climate IEB Unit provided feedback on a draft of this briefing.

62. Key themes from agencies during consultation were the need to be clear about how feasibility and credibility have been assessed, lay out risks and implications of different options more fully, and provide deeper analysis of options for the form of NDC2 (such as setting NDC2 as a range). We have incorporated this feedback to the extent possible, noting we will continue to develop further analysis ahead of Cabinet decisions.

63. Agencies also noted the importance of the economic modelling and cost assessments, and that the initial results should be appropriately caveated. Although the results of economic modelling were not available in time to include in the draft for agencies, MfE is continuing to work with agencies on the implications of the modelling and its underlying assumptions. In particular, we are working with Treasury to understand what the potential costs mean for the government's fiscal strategy and/or fiscal position.

64. We are progressing targeted engagement over November [BRF-5428 refers] and are working with PMO, DPMC and your office to progress the opportunity for public feedback.

9(2)(h)



9(2)(h)

Next steps

69. Based on your direction, we will continue to develop advice to support upcoming discussions at CPMG on 9 December and Cabinet decisions on NDC2 in January 2025, including potential risks and mitigations for different target level options.

70. Under the Paris Agreement, NDC submissions are required to be submitted with supporting *information to facilitate clarity, transparency and understanding.* This is a requirement for a short technical report describing the process undertaken to develop the NDC, and how it will be implemented, tracked toward and accounted for. We are beginning to prepare this for you and will share a draft with you when the NDC2 option is more advanced.

71. We recommend you discuss the options in this briefing with officials at your weekly meeting on 11 November.

Appendix 1: Further technical details

Sent via email to the Minister's Office.

Appendix 1: Further technical details

1. This appendix sets out further detail on

    i. The Climate Change Commission's NDC2 advice

    ii. The economic modelling utilised in this report.

2. In this brief we have also addressed the questions received from your office on BRF-5540.

Climate Change Commission NDC2 advice

3. The Commission's advice on how much reduction in domestic emissions New Zealand could feasibly achieve as part of its second nationally determined contribution (NDC2) was based on their draft advice and modelling on emissions budget 4 (EB4) released in April 2024.

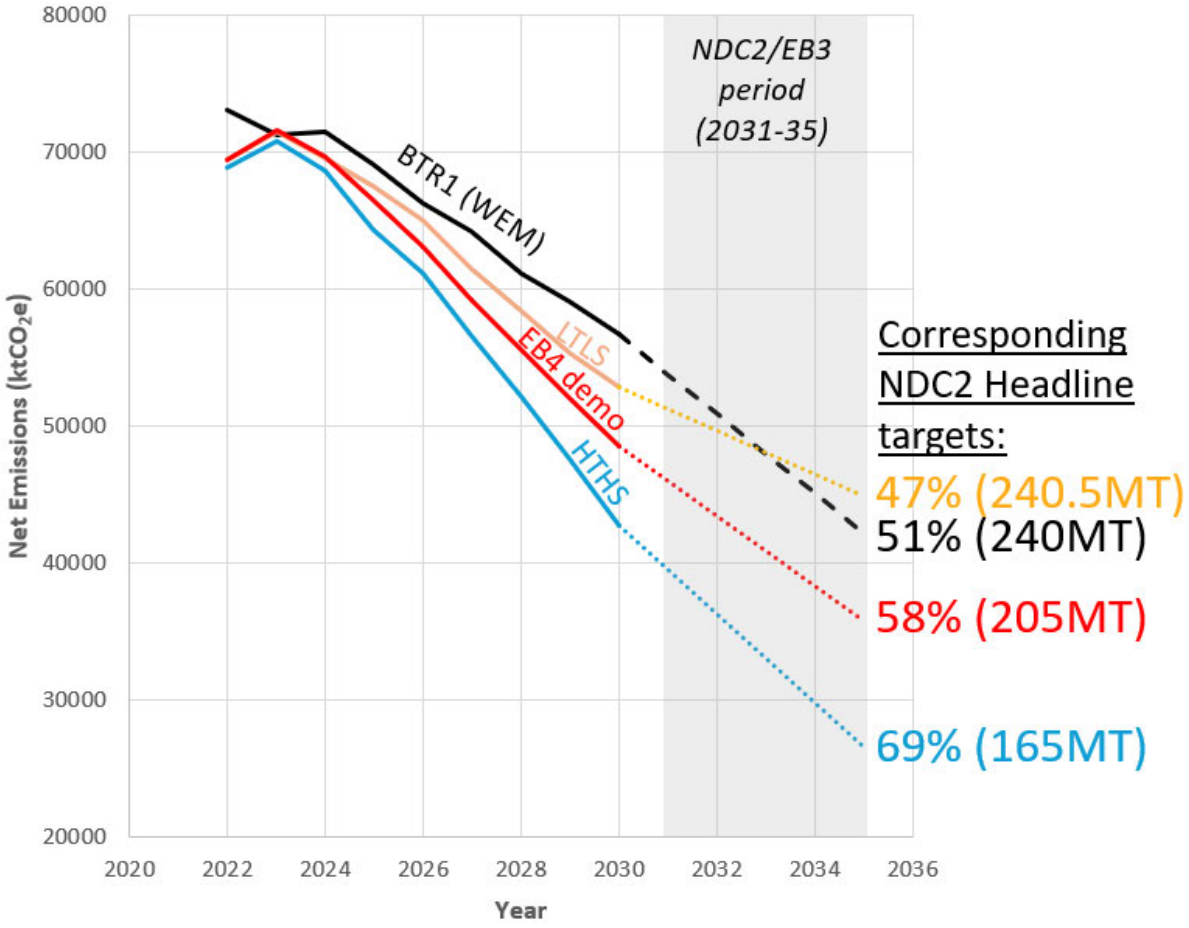
4. The draft modelled scenarios used in the Commission's NDC2 advice take into account Government polices as of July 2023 (updated for changes made in the Government's first 100 day plan) and are based on data from the 2023 New Zealand Greenhouse Gas Inventory (GHGI).

5. New information, including the updated 2024 GHGI, net target accounting data, Government policy (ERP2), emissions projections, and the feedback received through engagement on the Commission's draft advice on EB4 will change the Commission's modelled scenarios. MfE can update the Commission's scenarios when the final EB4 modelling is published in December 2024.

6. The Commission's scenarios also had different modelling assumptions to those used in the ERP2, such as much higher uptake of EVs and lower dairy cow numbers. These differences impact emissions in the Commission's scenarios beginning in the NDC1 period.

7. These two differences mean that the Commission's emission projections are very different to the first Biennial Transparency Review (BTR1), as shown in Figure 1.

Figure 1. *Projected emissions (solid lines) and illustrative NDC2 budget trajectories (dotted lines) and targets (%) for each of the Commission's draft modelled scenarios (LTLS, EB4 demonstration pathway and HTHS). For reference, we have included the trajectory of the BTR1 WEM projections and the corresponding emission budget trajectory for a 51% headline NDC2 target (equivalent to an emissions budget of 240 $MtCO_2e$).*

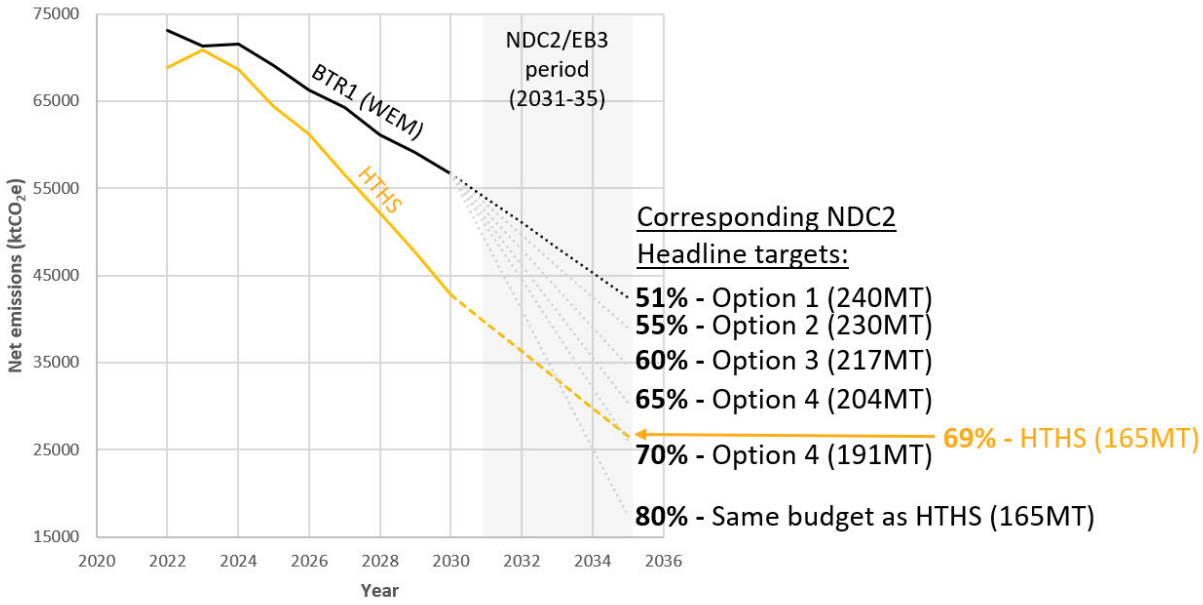


8. The Commission's draft Low Technology Low Systems change (LTLS) modelled scenario equates to approximately the same emissions budget as New Zealand's notified EB3 (240 $MtCO_2e$) (see Figure 1). An emissions budget of 240 $MtCO_2e$ starting from projected 2030 net target accounting emissions (based on BTR1 projections under the 'with existing measures' [WEM] scenario) gives an equivalent NDC2 headline target of 51%, as shown in Figure 1).

9. In this briefing, the calculated emissions budgets and additional abatement required for each option beyond EB3 are based on the assumption that the NDC2 budget trajectory starts from projected emissions in 2030 (based on BTR1 WEM projections). Conversely, the Commission's scenarios all have different starting points for emissions in 2030 (with higher headline targets having lower starting points), and these starting points are lower than BTR1 WEM 2030 projections.

10. As a result, the corresponding emissions budgets for the same headline NDC2 target (%) from the Commission's NDC2 advice and the options presented in this briefing are not directly comparable as shown in Figure 2.

Figure 2. *Comparison of the indicative NDC2 budget trajectories and targets (%) for each of headline target options given in the briefing with the Commission's draft modelled HTHS scenario. For comparison, we have also provided a direct translation of the NDC2 emission budget from the Commission's HTHS scenario (165 $MtCO_2e$) from the BTR1 projected net target accounting emissions in 2030, which would equate to an NDC2 headline target of ~80%.*



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11. This highlights that the emissions budgets presented in the briefing should be treated as indicative – they are calculated assuming emissions in 2030 are as currently projected. Regardless of the option chosen, NDC emissions budgets remain provisional until after the relevant period ends and will be based on actual emissions.

Answers to your questions on BRF-5540

12. More information about the modelling impact of the different assumptions mentioned on paragraph 17:

    i. Methanol production – ERP2 assumes one of Methanex's two units closes at the end of 2027 and the other at the end of 2029. The Commission assumes only one unit closes, at the end of 2029. We estimate the impact of this difference is the ERP2 projections are around 3.1Mt CO2-e lower over the EB2 period.

    ii. Steel production – ERP2 assumes the Electric Arc Furnace starts in 2026 and that it reduces emissions by 1 Mt CO2-e. The Commission assumes it starts in 2027, with

annual emissions reductions varying across their different scenarios (which have different assumptions on the reduction in coal use).

iii. Aluminum production – ERP2 assumes the Tiwai Point Aluminum Smelter will continue to operate until 2025. The Commission also appears to assume the ongoing operation of the smelter, though under their HTHS scenario they assume the uptake of zero carbon anodes to aluminum production by 2035, which would lower emissions from this activity.

13. Additional context regarding the BTR1 adjustment mentioned in the briefing.
    i. This is discussed in paragraphs 3 – 7 and illustrated in Figure 1.

14. Information on the variance between ERP2 projections and the Commission's scenarios.
    i. Emissions over EB1 – 3 in the current ERP2 projections and the Commission's scenarios are shown in the table below.

Table 1. *Summary of total net emissions permitted under New Zealand's notified first second and third emission budget compared with projected emissions over the same period from the most recent ERP2 projections (with new measures) and the Commission's draft modelled scenarios. Emissions in each budget period are given in* $MtCO_2e$.

	EB1 (2022-25)	**EB2 (2026-2030)**	**EB3 (2031-35)**
Notified emissions budgets	290	305	240
Current ERP2 projections (new measures)	284	303	251
Low technology, low systems change (LTLS)	278	293	240
EB4 demonstration pathway	277	278	205
High technology, high systems change (HTHS)	273	260	165

Further information on economic modelling

15. We have modelled three scenarios, aligned with option 1 (51% target – aligned with EB3), option 2 (55% target) and option 4 (65% target). The latter two scenarios are more ambitious than what is required to achieve the 2050 net zero target, and we assumed this additional ambition is continued such that the net zero target is achieved before 2050.

16. We also modelled these scenarios where domestic ambition reduces after the NDC2 period, so the net zero target is achieved in 2050. For option 2 (55% target), this did not

significantly impact the short-term results; for option 4 (65% target) this reduced the economic impacts – but this scenario is unlikely to be realistic as it implies New Zealand's emissions would be flat or increasing during the 2040s.

17. In all scenarios, the starting point is the ERP2 final policy scenario[1], and no additional policies are imposed beyond those in ERP2 - emissions reductions are achieved by varying emissions shadow prices to drive abatement technology uptake. Technology assumptions are consistent across all scenarios.

18. The table below sets out the results from the modelling, including the modelled impact in 2050 – noting there is much more uncertainty with modelled outcomes far in the future. As noted in the briefing, these results are preliminary and we are still discussing them with other agencies.

		Percent impact relative to ERP2 Policy Scenario	
	Emissions target (Mt CO2-e)	**Real GDP - 2035**	**Real GDP - 2050**
Option 1 - 51% target	240	-0.1%	-0.1%
Option 2 - 55% target	230	-0.3%	-0.2%
Option 4 - 65% target	204	-0.9%	-1.5%

19. This modelling reflects our best possible estimates but has limitations, including that it largely extends New Zealand's current economic structures – it does not predict what the future economy could look like – and does not account for the impacts of climate change on society and the economy.

[1] The model was calibrated to align as closely as possible with the ERP2 policy (i.e. With Additional Measures) projections, though does not include the Huntly biomass abatement as these were made after the modelling was completed.

Ministry for the Environment
Manatū Mō Te Taiao

Briefing: Accounting approach for NDC2

Date submitted: 5 December 2024
Tracking number: BRF- 5596
Security level: In-Confidence
MfE priority: Urgent

Actions sought from Ministers		
Name and position	***Action sought***	***Response by***
To Hon Simon WATTS **Minister of Climate Change**	Note the contents of this briefing and agree to the recommendations	9 December

Actions for Minister's office staff
Forward this briefing to CPMG Ministers **Return** the signed briefing to the Ministry for the Environment (ministerials@mfe.govt.nz).

Appendices and attachments
Appendix 1 - Further information on accounting approaches 9(2)(h)

Key contacts at Ministry for the Environment			
Position	***Name***	***Cell phone***	***First contact***
Principal Author	Tom Womack		
Responsible Manager	Meredith Davis	9(2)(a)	✓
General Manager	Hemi Smiler	9(2)(a)	

Minister's comments

Accounting approach for NDC2

Key messages

1. Under the Paris Agreement, countries are expected to communicate their second Nationally Determined Contribution (NDC2) by 10 February 2025.

2. When communicating an NDC, countries must provide sufficient information to facilitate clarity, transparency and understanding of their contributions. This includes providing the assumptions and methodological approaches applied when estimating and accounting for emissions reduction targets.

3. The expression of the target is an important consideration as it has implications for how ambitious a target is perceived and how comparable it is to targets taken by other countries with significantly different emissions profiles.

4. 9(2)(f)(iv) [redacted]

5. New Zealand has options on how to express the NDC2 target and the accounting rules that will be applied to measuring progress. There is also a choice of whether to express NDC2 as single-year target or a multi-year target.

Target Type: Gross-net or net-net target

6. Between 2008 and 2020 New Zealand has expressed its international emissions reduction commitments as a percentage reduction of net emissions below 1990 gross emissions levels. This is referred to as setting a “gross-net target” and was required under the Kyoto Protocol. New Zealand’s emissions reduction commitment for the period 2021-2030 (NDC1) under the Paris Agreement was also set as a gross-net target, against 2005 levels.

7. The Climate Change Commission prefers a gross-net approach, while Japan, Canada and South Korea apply a gross-net approach in accounting for NDC1.

8. The practice of setting a gross-net target and applying the relevant accounting rules levels the playing field. Without it, countries could be significantly advantaged or disadvantaged in meeting their targets based on net emissions from the LULUCF sector in the base year. Similar headline reductions for net-net targets would require far greater levels of ambition to achieve for a country with high removals in the base year than a country with high LULUCF emissions resulting from a high deforestation rate in the base year. Alternatively, targets that represent comparable effort between countries could appear weaker in terms of the headline reductions for a country with high removals in the base year. This nuance is challenging to communicate and any misunderstanding could result in criticism.

9. Officials consider it that a gross-net target remains the most appropriate approach for NDC2 as it best reflects New Zealand’s national circumstances where there was a high

level of removals in the 2005 base year, due largely to the legacy impacts from the plantation forestry estate. By isolating the emissions effects of historical decisions, a gross-net approach creates an incentive for future mitigation by rewarding or penalising additional action.

Accounting rules: Target Accounting

10. To meet a gross-net target with integrity, target accounting rules are applied when monitoring and demonstrating its achievement.

11. Target accounting rules are designed to reflect a gross-net approach by factoring out emissions and removals resulting from pre-existing forests that would have occurred anyway. Target accounting helps incentivise mitigation action because the impacts of historical activities are not able to be used to contribute towards meeting climate change targets.

Target Form: Point year or multi-year budget

12. When New Zealand first set NDC1 in 2016, it was intended to be managed as a multi-year budget. At that time New Zealand did not have domestic emissions budgets. NDC1 was updated in 2021 and New Zealand moved to communicate NDC1 as a point year target to be more comparable to other countries' NDCs. However, for comparability and consistency with the NDC1 target pre-update, the point year target is managed as a multi-year budget.

13. Now that New Zealand manages domestic emissions reductions as budgets, it makes sense to reassess whether our future NDC targets should still be managed as a budget as well.

14. Assuming that our NDC2 is broadly aligned to our domestic emissions budgets for the same period, which the draft Cabinet paper submitted to CPMG notes is your preference, officials recommend that the NDC2 target be a single point-year target. This is a change in approach from NDC1. That approach would avoid having two similar budgets covering the same time period. We would track progress towards our single point-year target in our Biennial Transparency Reports. Progress towards domestic budgets will continue to be tracked and reported by the Climate Change Chief Executives Board and, to the extent that the NDC2 is aligned to the third emissions budget, would also enable indicative tracking progress towards NDC2.

15. A switch to a single point year target form that is set on the basis of our domestic emissions trajectory may be criticised as being less ambitious than a multi-year budget continuing on from our NDC1 target, or a single year target that also builds from the NDC1 target. However, given the advantages of a simpler reporting approach, 9(2)(g)(i) we consider a point year target is most suitable. A point year target is also the more common target form across NDCs internationally. Clear communication about the reasons for the change will be important.

Recommendations

We recommend that you:

a) **note** that decisions on the target type, form and accounting rules that New Zealand applies to meet its target are required when setting, monitoring and demonstrating achievement of New Zealand's NDC2

9(2)(h)

c) **agree** that NDC2 will be accounted for on a gross-net basis using target accounting, consistent with the approach and rules for accounting NDC1

Yes | No

d) **agree** that New Zealand's NDC2 will be formally communicated as a single point year target

Yes | No

e) **forward** this briefing to CPMG ministers

Yes | No

Signatures

Hemi Smiler
General Manager – Mitigation Policy
Climate Change Mitigation and Resource Efficiency
Date: 5/12/2024

Hon Simon WATTS
Minister of Climate Change
Date:

Accounting approach for NDC2

Purpose

1. The briefing seeks your agreement to the accounting approach that New Zealand will apply to setting, monitoring and demonstrating achievement of the second Nationally Determined Contribution (NDC2).

Background

2. Under the Paris Agreement, Nationally Determined Contributions (NDCs) are the main mechanism through which countries will achieve the long-term temperature goal to hold warming to well below 2°C and pursue efforts to limit global average temperature rise to 1.5°C above pre-industrial levels.

3. Countries are expected to communicate their second NDC (NDC2) by 10 February 2025. NDC2 will cover the period 2031-35. NDC communications are recorded in a public registry maintained by the United Nations Climate Change (UN Climate Change) secretariat.

4. The Paris Agreement is underpinned by a reporting and review framework that requires countries to transparently report on how they are tracking towards their NDCs. Countries are required to report this information every two years in Biennial Transparency Reports (BTRs) which are then assessed by a technical expert review team (BRF-5625 refers).

5. In addition to setting a headline figure, NDC2 requires consideration of options regarding the accounting approach. This includes the target type, accounting rules, and the form of the target. Further information and historical approaches are outlined in Appendix 1. Officials can meet with you to outline these in more detail.

6. The accounting approach is an important consideration as the choices have implications for how ambitious the target is perceived and how comparable it is with other countries that have significantly different emissions profiles.

9(2)(h) [redacted]

Target type: Gross-net or net-net target

8. New Zealand has a unique emissions profile when compared to those of other developed countries. Comparing choices of accounting approach among likeminded countries is not a useful gauge in deciding if one is better or more correct than another.

9. New Zealand can express a target in a multitude of ways that represent the same level of national ambition and contribution to global efforts. However, how the target is expressed can have implications on the perception of our national ambition as some approaches are more easily understood than others. It is therefore important that our target is expressed in a manner that provides a sufficient level of transparency and shows that New Zealand is contributing to global efforts in a meaningful way.

New Zealand has historically used a gross-net target

10. New Zealand has historically committed to reducing its net emissions in the target year relative to gross emissions in the reference year. This is referred to as setting a “gross-net” target.

11. Between 2008 and 2020 New Zealand has expressed international commitments as a percentage reduction of net emissions below New Zealand’s 1990 level of gross emissions. This was mandatory under the Kyoto Protocol. New Zealand’s emissions reduction commitment for the period 2021-2030 (NDC1) under the Paris Agreement was also set as a gross-net target against 2005 levels.

12. The Climate Change Commission prefers a gross-net approach, while Japan, Canada and South Korea apply a gross-net approach in accounting for NDC1.

A gross-net target approach best reflects our national circumstances

13. The gross-net approach used for NDC1 was a deliberate choice that reflected New Zealand’s national circumstances and one that provides an incentive for ongoing actions that reduce emissions and increase removals.

14. The practice of setting a gross-net target and applying the relevant accounting rules levels the playing field. Without it, countries could be significantly advantaged or disadvantaged in meeting their targets depending on net emissions from the LULUCF sector in the base year.

15. Key to New Zealand’s national circumstances is our large production forest estate. The presence of high levels of removals in the 1990 base year for the Kyoto Protocol and 2005 base year for NDCs is due largely to the legacy impacts from periodic surges in plantation forestry establishment. These reflect historical actions to establish new forests that occurred well before New Zealand had international mitigation commitments.

16. Similar headline reductions for net-net targets would require far greater levels of ambition to achieve for a country with high removals in the base year than a country with high LULUCF emissions that is the resulting from a high deforestation rate in the base year. Alternatively, targets that represent comparable effort between countries could appear weaker in terms of headline rates of reduction for a country with high removals in the base year. This nuance is challenging to communicate and any misunderstanding could result in criticism.

17. A gross-net approaches considers the cyclical nature of emissions/removals from pre-existing plantation forests and historical planting actions by factoring out the business-as-usual emissions impact of these from the accounting. This is important in New Zealand's case, which, if not "factored out", would dominate net emissions trends and delink the tracking of emissions from the results of emission reduction actions.

18. By isolating the impact of historical decisions, a gross-net approach creates an incentive for future mitigation by rewarding or penalising additional action. Under a net-net approach, the impact of New Zealand's emissions reductions and removals since 2005 would be "drowned out" by the harvesting and replanting cycles occurring on our production forests. New Zealand would be accounting not only for its efforts to reduce gross emissions, but also for the peaks and troughs in emissions due to harvest and replant cycles from existing production forests. These fluctuations will mask the effectiveness of policies to reduce emissions and those that protect and enhance our land-based carbon sinks. This could deter the additional planting incentivised by target accounting's recognition of newer forests and put our 2050 net zero goal at risk.

19. Under an alternative net-net approach, New Zealand would commit to reducing its net emissions in the target year (or budget period) relative to net emissions in the base year. This means the net emissions from the LULUCF sector are included in both base year and target year (or budget period).

20. Accounting on a net-net basis is likely to be considered more consistent with the approach taken by the IPCC in its 2018 Special Report and Sixth Assessment Report (AR6) that provided global pathways for reaching the 1.5 ºC goal. This is due to the IPCC's use of a global net-net calculation for the global pathways. However, the methodology to determine net carbon dioxide emissions in these global pathways is not identical to that used in countries greenhouse gas inventories[1].

21. A similar headline target set for a net-net target as that set for a gross-net target would be either significantly harder to achieve during times when harvest rates are high or significantly easier to achieve when harvest rates are low. In New Zealand's case, a net-net target could dampen ambition in the short term due to concerns about what could be achieved domestically to sufficiently reduce emissions and would create downstream issues for the planning and implementation of stable climate change policies.

22. Just as for gross-net, net-net accounting approaches are able to be implemented with integrity. The United Kingdom and Switzerland apply a net-net approach in accounting for NDC1. Australia and the United States apply a net-net approach but maintain some of the Kyoto Protocol era accounting rules for the LULUCF sector, and the European Union will switch from a gross-net to a net-net approach from 2026 onwards.

23. If the Commission had used a net-net approach in its advice on NDCs, this would have resulted in a different recommendation regarding the NDC1 emission reduction target and different advice on what potential headline NDC2 targets could be achieved domestically.

24. In the process of setting NDC2, officials recommend that you continue to use a gross-net approach because:

    - it is consistent with:
        - a continued incentive to establish new forests

[1] This is primarily attributed to inconsistent definitions of anthropogenic carbon dioxide fluxes in managed forests between the global models used by the IPCC and national greenhouse gas inventories – due to a broader definition of managed land in national greenhouse gas inventories.

    - a disincentive to deforest
    - an incentive to increase carbon stocks of existing forests above business-as-usual.

- it recognises that countries with significant removals in the reference year would be disadvantaged so that targets that represent comparable effort between countries would appear weaker and be challenging to communicate internationally.

- the gross-net approach captures the impacts from additional forestry actions being undertaken on land after the base year that affect emissions and removals, and for which we have robust scientific evidence.

- it is also consistent with the Government's net-based strategy for climate change and the approach used for domestic emission budgets

- there is no compelling case to change at this point in time, and if a change did happen, would likely negatively impact transparency.

Accounting rules: Target Accounting

25. To meet a gross-net target with integrity, target accounting rules should be applied when monitoring and demonstrating its achievement. Target accounting rules are designed to ensure the emissions impacts from additional action only are able to contribute towards meeting targets. This helps incentivise mitigation action as actions taken in the past cannot be relied on to meet climate change targets.

26. Under NDC1, New Zealand is accounting for the following forestry activities:

    - Deforestation

    - Afforestation and reforestation, of newly established forests (i.e., since 1989) up until they attain their long-term average carbon stocks, and

    - Forest management in pre-1990 forests as a result of changes in business-as-usual forest management activities.

27. This approach excludes the emissions that occur from other activities for which data are currently limited and have high uncertainty. We note there is separate work underway on expanding NDC accounting to non-forest land uses to support the future recognition of non-forest removals (BRF-5356 refers).

Target Form: Point year or multi-year budget

28. NDCs under the Paris Agreement can be expressed as single-year targets, a multi-year target, or both.

    - A single-year emissions target signals a target to be met at the end of the NDC period, which in practice, is met through action over the target period to reduce emissions to the target level.

- A multi-year target is managed across the period similar to New Zealand's domestic emissions budgets and sets a quantity of emissions allowed to be emitted over the budget period rather than isolating emissions in a single-year.

29. Although countries use both approaches, overall, a single-year target is the most common target form across NDCs.

New Zealand manages NDC1 as a multi-year target

30. When New Zealand first set NDC1 in 2015, it was intended to be managed as a multi-year budget. At that time New Zealand did not have domestic emissions budgets.

31. NDC1 was updated in 2021 and New Zealand moved to communicate NDC1 as a point year target to be more comparable to other countries' NDCs. However, for comparability and consistency with previous targets, the point year target is managed as a multi-year budget.[2] This approach:

    - allows management of inter annual variability in emissions
    - simplifies how offshore mitigation is counted towards an NDC target
    - has high environmental integrity as it is clear how emissions in every year are accounted for
    - required the use of international cooperation to meet the updated NDC1 target, but the rules for Article 6 of the Paris Agreement had yet to be finalised.

32. Since NDC1 was updated, the rules Article 6 under the Paris Agreement have been completed and include how to account for offshore mitigation for single-year and multi-year target forms.[3] We also now have a 2050 domestic emissions reduction target with five yearly budgets to step towards it. This provides a reason to reassess whether our second NDC target should also be managed as a budget as well.

The most suitable approach likely depends on the preferred target level

33. We previously advised that the most suitable approach for the NDC2 target form depends on the preferred target level [BRF-5534 refers]. We understand that your preference is to align our international targets with our domestic budgets for greater coherence.

34. Based on this shift towards a more domestically focussed NDC2, officials recommend moving away from as a multi-year emissions budget and to a single point-year target for how NDC2 is managed.

35. A single point-year target would simplify New Zealand's international and domestic target architecture and avoid having two similar, but slightly different, budgets covering

[2] New Zealand is one of only three countries that manage NDC1 as a multi-year emissions budget (the others are Australia and Switzerland). Both Australia and Switzerland manage their NDC1 targets jointly as a single-year and multi-year target.
[3] For single-year NDC targets this requires that offshore mitigation is accounted for by providing an indicative multi-year emissions trajectory or budget across the NDC period that is consistent with implementation and achievement of the NDC or by taking an averaging approach.

the same time period.[4] We would track progress towards our single point-year target in our Biennial Transparency Reports, submitted every two years to the UNFCCC. Progress towards domestic budgets will continue to be tracked and reported by the Climate Change Chief Executives Board.

Communicating to the UNFCCC and the public will be important for transperancy

36. For climate outcomes and New Zealand's contribution to the global effort to limit global warming to 1.5°C it is the emissions emitted over the NDC2 budget period that is important. However, communicating why we have changed the form of our target in our NDC2 submission to UNFCCC will be important for transparency and to explain how NDC2 demonstrates a progression from NDC1.

9(2)(g)(i)

[redacted]

[4] Note that there will always also be a misalignment between our international and domestic climate change targets due to the inclusion/exclusion of Tokelau's emissions in NDCs vs emissions budgets. However, the emissions from Tokelau are negligible relative to New Zealand's and their inclusion in our domestic emissions budget would not change the level they set at when rounded to nearest $MtCO_2e$.

9(2)(g)(i)

9(2)(g)(i)

38. The rationale for this view is that by starting the trajectory of the NDC2 provisional target from projected emissions in 2030, New Zealand would be resetting the starting point of its NDC path to domestic-only levels. This would be considered lower ambition than if NDC2 target was set based on continuing from the NDC1 target. This reflects that NDC1 was significantly greater than New Zealand's emissions budgets covering the same period and therefore relied on offshore mitigation to achieve.

39. The underlying emissions budgets for different NDC2 target forms that achieve the same headline target level represent different levels of emissions reductions. This is shown in Table 1 for a headline target of 51 per cent and 60 per cent.

Table 1. Indicative emissions budgets for different target forms for NDC2 assuming an illustrative headline target of 51% and 60%.

NDC2 target form	NDC2 headline point-year target	Indicative emissions budget ($MtCO_2e$)	Emissions budget implied by NDC1 over the same time period as NDC2 (5 years) ($MtCO_2e$)
Multi-year emissions budget starting from projected net emission in 2030	51%	240[5]	289.5
	60%	217	
	51%	214	

[5] A 51% reduction from projected net emissions (based on the WEM projections in BTR1) is equivalent to an emission budget of 240.7 MtCO2e. However, a fixed emissions budget of 240 MtCO2e from the same starting point for calculating the budget trajectory would also be equivalent to a headline target of 51% (rounded down from 51.3%).

Multi-year emissions budget starting from NDC1 point-year target in 2030	60%	191	
Single-year target (recommended target form)	51%	~240*	
	60%	~217*	

*The actual emissions budget achieved by a single-year target will depend on the trajectory of emissions reductions over the NDC2 period.

9(2)(g)(i) [redacted]

42. If NDC2 is managed as single point-year target based on domestic emissions reductions only, the target would be considered met if the projected emissions were below the single point-year target in 2035 9(2)(g)(i) [redacted] This approach to a single-year target also assumes that the emissions trajectory to the NDC2 target continues on from our domestic level in 2030 rather than the NDC1 2030 point-year target.

43. The benefit of developing NDC2 from projected emissions (whether as a multiyear emissions budget or a point year target) is to enable the target to better incentivise and drive domestic emissions reductions.

44. 9(2)(h) [redacted]

45. We note that when NDC1 was updated in 2021 the provisional budget was calculated from both projected emissions and the previous 2020 target. This means that the proposed approach is consistent with past practice. We judge that this approach is defensible due to the nationally determined nature of NDCs, and the lack of prescription under Paris rules on what constitutes progression and how technically to derive a target.

9(2)(g)([redacted]

9(2)(g)(i) [redacted]

Next steps

47. The Climate Priorities Ministerial Group (CPMG) meets on 9 December where NDC2 will be the substantive item for discussion. The options in the draft Cabinet paper being considered by CPMG are based on a gross-net approach, with information on the effort required to achieve different options based on indicative multiyear budgets calculated from projected emissions.

48. Ministerial consultation on the draft Cabinet paper closes on 11 December. Your direction on accounting choices will be reflected in the final draft Cabinet paper which you will receive on 11 December for lodgement on 12 December.

Appendix 1 – Further information on accounting approaches

Accounting under the Kyoto Protocol

1. Under the Kyoto Protocol, Parties were required to take gross-net emissions reduction targets.

2. Gross-net accounting is when the emissions reduction target is set against gross emissions in the base year and met by net emissions during the commitment period. This approach to accounting for targets was agreed to by the Parties to the Kyoto Protocol to ensure that the net emissions (or removals) that are used to meet targets represent additional action to that which was occurring in the baseline or would have occurred under business-as-usual. The Kyoto Protocol gross-net approach was aimed at driving additional effort, to reward or penalise actions taken since 1990.

3. The Party's emissions reduction target was set against its gross emissions baseline and was calculated as the quantity of allowable emissions (called "assigned amount") over the commitment period to which that target applied.

4. It was mandatory for Annex I Parties to the UNFCCC that ratified the Kyoto Protocol to apply accounting rules to the LULUCF sector when accounting for these targets. It was mandatory to account for new forests that had been established since 1990 and all deforestation that has occurred, again, in respect of the 1990 baseline, and for the second commitment period, covering 2013-2020, it was also mandatory to account for the management of pre-1990 forests where that deviated from business-as-usual projections, thereby covering all forestry activities. Other activities occurring in non-forest land uses could be accounted for voluntarily. In all cases rules applied to how these activities were accounted for.

5. The Kyoto Protocol allowed Parties to add to and subtract from their initial emissions allowance, in effect changing the level of their allowed emissions over the commitment period, through the eligible LULUCF activities they were accounting for and through participation in the Kyoto Protocol market mechanisms. Through these activities, Parties could generate, cancel, acquire or transfer emission allowances, which would raise or lower their emissions balance. These emission allowances were collectively called Kyoto units, and were subject to specific rules, depending on the particular unit type.

6. The gross-net approach achieves the same effective outcome as applying net-net accounting with the exception of the pre-1990 forest category. Forests that have been established since the base year are in fact accounted for on a net-net basis. There was no activity in the base year as the accounting is for additional activity since the base year. There is a specific provision (in Article 3, paragraph 7 of the Kyoto Protocol) for accounting for deforestation, that enables emissions in the base year (if they were occurring) to be added to the base year target. Therefore net-net accounting was also used to account for deforestation for countries that were deforesting in the base year.

7. Under the Kyoto Protocol, several LULUCF activities could voluntarily be accounted for, and this was required to be on a net-net basis. These activities included cropland and grazing land management, revegetation and wetland drainage and rewetting (second commitment period only). New Zealand did not elect to account for these activities.

8. Accounting for pre-1990 forests, however, without considering the arbitrary effects of forest age class structure, would have rewarded or penalised parties based on the legacy of actions that occurred in the past. It would also have introduced excessive credits into the accounting system, limiting the effectiveness of the Kyoto Protocol market mechanism that was adopted to drive additional action in developing countries. Special accounting rules and caps on credits able to be accounted for to meet targets from these pre-1990 forests were introduced to limit this.

9. New Zealand's international emissions reduction target or the period 2013-2020 was not formally set "under" the Kyoto Protocol, but the accounting method applied the Kyoto Protocol framework of rules.

10. The enforcement branch of the Kyoto Protocol Compliance mechanism was responsible for determining whether a Party included in Annex B to the Kyoto Protocol was not in compliance with the methodological and reporting requirements for meeting targets. Penalties for non-compliance with the accounting procedures and reporting obligations included a declaration of non-compliance and required a plan that set out the measures that the non-complying Party intended to implement in order to remedy the noncompliance. New Zealand was not called before the Compliance Committee during the Kyoto Protocol era.

Accounting under the Paris Agreement

11. Under the Enhanced Transparency Framework (ETF) of the Paris Agreement, New Zealand must submit:

    i. an annual national greenhouse gas inventory report, consisting of the national inventory document and common reporting tables (equivalent to the NIR and CRF described in my evidence above); and

    ii. biennial transparency reports. These include New Zealand's reporting on its progress in implementing and achieving its NDC.

12. In terms of the methodology to be used by the Parties when preparing their annual national inventory reports, the first Conference of the Parties serving as the Meeting of the Parties to the Paris Agreement (CMA) adopted the ETF. The Parties agreed that they shall each: use the 2006 IPCC Guidelines, and shall use any subsequent version or refinement of the IPCC guidelines agreed upon by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement.

13. Parties must use the IPCC's accepted good practice methodologies agreed upon by the CMA. The IPCC periodically develops and refines internationally agreed methodologies for the calculation and reporting of national greenhouse gas emissions and removals.

1. The method of accounting under the Paris Agreement is not prescribed in the way it was under the Kyoto Protocol. Parties determine their own contribution towards meeting the Pails Agreement goals, through their NDC, and must account for that NDC.

14. The Paris Agreement requires Parties to account for their NDCs in their biennial transparency reports for the greenhouse gas emissions and removals corresponding to their NDC, beginning with their second NDC in accordance with guidance for accounting for NDCs in decision 4/CMA.1. Parties may elect to apply this guidance to their first NDC. Under Article 4, paragraph 13 of the Paris Agreement, Parties must ensure that

they promote environmental integrity, transparency, accuracy, completeness, comparability and consistency, and avoid double counting in implementing their NDCs.

15. If a Party's NDC cannot be accounted for using IPCC methodologies, it must explain the methodologies it has used. Parties must detail how their approach is consistent with IPCC guidance for harvested wood products, natural disturbances on managed lands and the approach used to address the effects of age-class structure in forests. Parties are encouraged to apply consistent methodologies and must report any changes to methodologies used during the implementation of their NDC. These requirements are set out in Decision 4/CMA.1.

16. New Zealand announced its intended NDC under the Paris Agreement in 2015, followed by its NDC in 2016 (NDC1), including how it proposed to account for its NDC. New Zealand announced it would continue to take a gross-net target for NDC1, similar to that taken under the Kyoto Protocol, but with a modified approach to accounting for planted forests. An updated NDC1 was announced on 31 October 2021, the accounting approach will remain the same as advised by New Zealand for its 2016 NDC.

Averaging approach

17. New Zealand has stated at it will continue to apply the Kyoto Protocol framework to its forestry accounting and has developed its own methodology within that for accounting for post-1989 production forests for NDC1. This has been referred to as the “averaging” approach, outlined below. This is a variation of the target accounting approach New Zealand applied to its 2008-2012 and 2013-2020 targets.

18. Existing IPCC methodologies will be used to calculate the emissions estimates that will underpin the accounting method.

19. Under the Paris Agreement it is acceptable from a technical point of view to continue to apply the Kyoto Protocol framework of rules and account for a subset of the LULUCF sector, or account for the full LULUCF sector, or to apply different methods. As above, this is because the Paris Agreement does not include prescribed rules for accounting — those rules are nationally determined. Article 4, paragraph 13 of the Paris Agreement states: Parties shall account for their nationally determined contributions. In accounting for anthropogenic emissions and removals corresponding to their nationally determined contributions, Parties shall promote environmental integrity, transparency, accuracy, completeness, comparability and consistency, and ensure the avoidance of double counting, in accordance with guidance adopted by the Conference of the Parties serving as the meeting of the Parties to this Agreement.

20. Net-net accounting on the basis of the annual inventory report is an eligible approach to accounting under the Paris Agreement, as is gross-net accounting, and as are country-specific approaches that a Party to the Paris Agreement might choose, where that can be justified. This includes New Zealand's choice to apply averaging.

21. New Zealand's averaging approach means that we will account for the following forestry activities as previously, but with some modification (shown in italics):

    i. deforestation of all forests since 1990; to penalise this activity;

    ii. afforestation/reforestation of forests established since 1990 *up until they reach their average long term carbon stock for that forest type;* to incentivise this activity; and

iii. forest management of pre-1990 forests against a reference level, to incentivise management practices that increase carbon storage in these forests.

22. Applying averaging accounting to planted production forests eliminates the ongoing crediting and debiting cycle that is a characteristic of sustainably managed forestry operations. The cycle of growth, harvest and replant masks the real trends that are occurring in the LULUCF sector that would demonstrate the effectiveness of policies that protect and enhance carbon sinks and reservoirs. This is because the planted production forests are not providing long-term permanent additional carbon storage once they have reached their long-term average carbon stocks. The long-term average carbon stock is the amount of carbon the forest will store on average over multiple cycles of growth and harvest, based on typical harvest ages seen in New Zealand forestry. The age that the forest reaches its long-term carbon stock is called its `average age'.

23. The forestry accounting rules that apply to forests that were established before 1990, were developed to exclude the effects of natural and country-specific characteristics that would otherwise compromise a net-net accounting approach. This is because it would advantage some Parties and disadvantage others for activities that occurred before the base year. Emissions from these forests are accounted for against a reference level to ensure that their contribution to the accounts reflects direct human-induced changes in carbon stocks occurring within those forest lands that is additional to what would have occurred under business-as-usual.

9(2)(f)(iv), 9(2)(h)

[redacted]

Ministry for the Environment
Manatū Mō Te Taiao

Document 8

Insights from NDC2 targeted engagement

Date submitted: 5 December 2024
Tracking number: BRF-5664
Security level: In confidence

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

Appendices and attachments
1. Overview of targeted engagement on NDC2

Key contacts at Ministry for the Environment			
Position	***Name***	***Cell phone***	***First contact***
Principal Author	Bruno Aldaz		
Responsible Manager	Meredith Davis	9(2)(a)	✓
General Manager	Hemi Smiler	9(2)(a)	

Insights from NDC2 targeted engagement

Purpose

1. The purpose of this note is to provide you with key insights from the Ministry for the Environment (MfE) targeted engagement with key stakeholders and partners on the second Nationally Determined Contribution (NDC2).

2. This builds on our previous advice on engaging key groups, partners and New Zealanders ahead of decisions on NDC2 (BRF-5425; BRF-5520).

Background

3. You directed MfE officials to seek views from key stakeholders, partners and the wider public on setting NDC2 through a three-step approach:

    i. **Targeted engagement** *(largely completed)*. MfE has engaged with key stakeholders and partners including primary sector representatives, major electricity users, iwi/Māori groups, Tokelau, ENGOs (environmental non-government organisations), the Climate Business Advisory Group and youth representatives.

    ii. **Opportunity for public feedback** *(in progress – closes on 8 December).* You also asked MfE officials to make the Climate Change Commission's NDC2 report accessible on MfE website and provide an opportunity for the public to answer key questions on setting NDC2.

    iii. **Market research** *(in progress – due 6 December).* MfE commissioned private company The Research Agency to explore the public's views on the extent to which NDCs should be achieved domestically, and what role -if any- international cooperation should play. We have provided the draft questions for this research to your office.

4. This briefing focuses only on the insights MfE gathered throughout targeted engagement with key stakeholders and partners. Note that primary sector meetings were held jointly with MPI, and MBIE facilitated the meeting with the Major Energy and Electricity Users Group (MEUG).

5. We will report separately to you with the finalised data and insights from NDC2 public feedback and market research by 11 December 2024.

Key insights from targeted engagement

6. MfE officials engaged with Treaty partners and key stakeholders throughout November. They provided MfE with useful insights on key issues such as the role of offshore mitigation in New Zealand's NDC2 to help inform Cabinet decisions on setting this target. Table 1 summarises key themes from this engagement and a detailed list of all stakeholders involved is enclosed in Appendix 1.

Domestic and offshore action

7. Most stakeholders are supportive of a NDC2 target level that is ambitious yet achievable largely through domestic action.

8. However, stakeholders were concerned about achievability of the NDC2 target if climate policies are not consistent to support the level of action required to achieve it. For example, some stakeholders questioned the consistency and policy alignment across ERP2, resource management reform and our domestic and international targets.

9. Concerns were raised about over-reliance on offshore mitigation to meet emissions targets, particularly as the end of the NDC1 period approaches. Stakeholders emphasised the importance of prioritising domestic solutions wherever possible and questioned the long-term economic sense of investing in offshore mitigation compared to funding domestic solutions that could deliver more certain and lasting benefits to New Zealanders.

Business sector

10. Business stakeholders highlighted the need to prioritise credible domestic emissions reductions while maintaining New Zealand's "clean and green" reputation. Aligning ERP2 with NDC2 and adopting consistent policies would give businesses the confidence to act and invest in low emissions solutions to contribute to New Zealand's NDC target.

11. A split-gas approach, reflecting methane's unique impact, has strong support in the primary sector but requires broader alignment across industries.

Primary sector

12. Primary sector stakeholders advocate for a split gas target and for taking extra time to submit New Zealand's (after the February 2025 deadline), so that thorough consideration is given to the outcomes of the independent review of biogenic methane science and targets.

ENGOs

13. ENGOs emphasised the need for a robust emissions reduction plan and credible NDC2 target that is high ambition and focussed on domestic action. ENGOs do not support a split gas approach nor using GWP* for NDC2 accounting and highlighted the target must be transparent and avoid "greenwashed" accounting practices to overstate progress or deviate from IPCC guidelines.

Youth groups

14. Youth stakeholders highlighted New Zealand should take a high ambition approach, prioritising bold and ambitious domestic emissions reductions and focusing on increasing renewable energy without over-reliance on offshore mitigation.

15. As a developed nation with greater capacity, youth groups expect New Zealand to lead by example in the Pacific, demonstrating strong climate leadership and upholding its international commitments and integrating intergenerational equity and children's rights.

Tokelau

16. As New Zealand's NDCs extend to Tokelau, it is important that you regard to Tokelau's interests when setting this target. MfE has met with representatives from the Ministry of Climate, Oceans & Resilience to discuss the NDC2 process and opportunities for Tokelau's views to be included. Tokelau officials advised that they are engaging with the Minister for Climate Change and the Governing Council and will provide formal views to you on behalf of Tokelau before 11 December.

17. From MfE's meetings with Tokelau officials, it is clear that as Tokelau is extremely vulnerable to climate impacts it therefore has a strong interest in ambitious mitigation action by Parties to the Paris Agreement. Tokelau officials noted they are pursuing ongoing efforts to reduce Tokelau's own emissions (although these are very small compared to New Zealand's), due to the need to reduce emissions from all sources, as "every emission counts when you are on the frontline". MfE anticipates Tokelau would support strong and ambitious mitigation action by New Zealand in the NDC2 period.

Iwi Māori views on NDC2

18. MfE wrote to post settlement governance entities (PSGEs) inviting them to meet to discuss NDC2. We had meetings with Rangitāne Tū Mai Rā Trust and Te Rarawa.

19. Te Rarawa's feedback highlighted the need for a sensible, NDC2 target, advising to avoid letting perfection delay progress, ie. clear timeframes and achievable goals are essential. They also noted the importance of the voluntary carbon market and agritech to help meet any NDC2 target and the need for mitigation measures to be realistic for Māori, citing how solar panels would be more useful than EVs in their rohe.

20. Rangitāne Tū Mai Rā focused their feedback on climate adaptation and regional development. They see the Wairarapa as a key opportunity region for addressing climate adaptation challenges. They also noted the importance of research and development in technology to reduce emissions, opportunities from wider removals including blue carbon as well as continued native afforestation.

21. We also met with Pou Take Āhuarangi on behalf of the National iwi Chairs Forum (NICF) who provided preliminary feedback ahead of a formal written submission they will provide by 8 December. We have summarised the key points for your consideration ahead of CPMG.

22. NICF highlighted that climate action must balance domestic and global commitments while addressing the unique needs of Māori communities, ensuring inclusivity, equity, and resilience. They considered the Commission's NDC2 advice and scenarios and note that climate mitigation and adaptation measures are resource-intensive and disproportionately impact Māori landowners and iwi given the significant role of primary industries in the Māori economy.

23. Māori are also at the forefront of climate change impacts, with the most recent example being Cyclone Gabrielle's impact on Māori communities in coastal and low-lying areas. A significant number of marae across New Zealand remain highly vulnerable to climate impacts.

18(d) [redacted]

25. We understand that you will meet with Marama Royal (Chair - Pou Take Āhuarangi) on 11 December and Te Tai Kaha on 17 December to discuss wider climate priorities.

Table 1. Themes identified through NDC2 targeted engagement

Theme	Key points
1. Lack of alignment and consistency between domestic and international climate targets and policy	- Domestic policies and ERPs seem out of alignment with NDC target. - Misaligned policies (e.g., RMA, ERP2) undermine climate progress and investment certainty. - Businesses need clear rules, stability and investment confidence to transition to a low emissions future.
2. Limited NDC impact on trade and international reputation	- Importance of safeguarding New Zealand's international reputation and trade with ambitious yet credible NDC2 target. - Weak climate ambition risks damaging New Zealand's "clean and green" brand. - However, NDC headline target is not expected to have major impacts on New Zealand exports, unless the NDC2 fails to meet the requirements set under the Paris Agreement. - Overseas consumers are more interested in the sustainability credentials of products and brands than in the country's NDC. - New Zealand's FTA with EU is more likely to be negatively impacted by NDC2, if it does not meet Paris Agreement requirements.
3. Prioritising domestic reductions over offshore mitigation	- Preference for setting a NDC2 target that is achievable through domestic action, leaving the role of offshore mitigation as a backdoor plan only if/when necessary. - Some ENGOs thought offshore mitigation was a good option for New Zealand to consider. - There are credibility concerns about the reliability of international cooperation based on New Zealand's purchase of offshore carbon credits. - Overreliance on offshore mitigation risks compromising integrity, credibility and long-term taxpayer costs.
4. Split gas (methane) target	- Dairy, beef and lamb sector stakeholders advocate for a split-gas target to account for methane's specific warming impact while ensuring equitable contributions from agriculture. - Other business sectors do not have a clear standpoint on this issue but understand that a split gas approach might reduce New Zealand's flexibility to meet the NDC target. - Stakeholders who support a split-gas approach (Dairy NZ, Federated Farmers, Beef + Lamb) argue that a split target would allow New Zealand to more accurately measure and account for methane's unique warming impact and align with global best practices (e.g., GWP*). - ENGOs, particularly Greenpeace felt strongly against New Zealand adopting a split gas target.
5. Balance between ambition and achievable target	- Setting ambitious yet domestically achievable NDC2 target that reflects New Zealand's capabilities, unique emissions profile and current challenges. - Ambitious targets must balance credibility with what is achievable given New Zealand's economic and sector-specific realities.

Theme	Key points
	- Targets that lack feasibility undermine trust and progress. - New Zealand's economic outlook and current policies would cast doubt on a target that is too high to achieve.
6. Accelerating agriculture technology and innovation	- New Zealand need to accelerate agriculture technology and innovation to reduce emissions and support sustainable food production and sector resilience. - Developing effective and safe technology to reduce emissions in agriculture is essential for the future of the sector, particularly for dairy. - There is uncertainty about the timeframe, effectiveness and uptake of future technology not yet available. - Investment certainty and incentives will be needed to ensure uptake of technology by farmers when the tools become available.
7. Balancing forestry and sustainable land use	- Land use policies should balance food production, wood processing, and carbon sequestration. - Over reliance on afforestation risks displacing productive farmland and impacting rural communities (e.g., job losses). - HortNZ noted that ERP2 misses the opportunity to enable and incentivise greater land use transition from high emissions agriculture activities into horticulture (a low emissions sector).
8. Limited consultation and consideration for late submission	- A late NDC2 submission could be advantageous to New Zealand to better understand our target options relative to other countries. - Adequate timeframes ensure stakeholders can consider critical inputs and provide informed feedback. - Engagement must incorporate diverse voices, including Māori and youth.
9. Lack of confidence in climate modelling and assumptions	- Lack of confidence in climate modelling and assumptions made by the Climate Change Commission, especially for the agriculture sector. - Modelling must use robust assumptions to avoid undermining confidence in emissions targets. - Transparent methodologies ensure credibility in projections and policy outcomes. - Primary sector stakeholders expect the Methane Review to change the assumptions and emissions forecast that are being considered in setting domestic targets and the NDC.
10. Transparency and accountability	- Importance of ensuring transparency and accountability through credible targets, clear reporting, and adherence to global standards in setting NDC2. - Credible targets and clear reporting foster trust and meet international standards. - Using 'creative' accounting practices could risk harming New Zealand's reputation.
11. Expanding carbon removals	- Non-forestry solutions could help scale up, diversify and strengthen domestic carbon sequestration. Innovative approaches reduce reliance on afforestation and provide wider benefits.

Ministry for the Environment
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Next steps

26. You will receive the findings of the call for public feedback and market research by 11 December.

27. The Climate Priorities Ministerial Group (CPMG) meets on 9 December where NDC2 will be the substantive item for discussion.

28. Ministerial consultation on the draft Cabinet paper closes on 11 December. Feedback from CPMG and Ministers will be considered and addressed in a revised Cabinet paper, which you will receive on 11 December for lodgement on 12 December.

29. Insights from targeted engagement and public feedback will be incorporated into the NDC2 Cabinet paper before it is lodged on 12 December.

Signatures

Hemi Smiler
General Manager
Mitigation Policy
5 December 2024

Hon Simon WATTS
Minister of Climate Change
Date

Appendix 1:

Category	Organisation	Representatives	Date
Business sector	Chapter Zero	9(2)(a)	20/11/24
	Climate Business Advisory Group	9(2)(a) – Sustainable Business Council 9(2)(a) - Z Energy 9(2)(a) - Air New Zealand 9(2)(a) Spark NZ 9(2)(a) - Mercury 9(2)(a) Oxygen 9(2)(a) – Fonterra 9(2)(a) - Powerco	29/11/24
	Major Electricity Users' Group (MEUG)	9(2)(a)	18/11/24
Primary sector	Beef+Lamb NZ	9(2)(a) 9(2)(a) 9(2)(a)	28/11/24
	Dairy NZ	9(2)(a) 9(2)(a)	14/11/24
	Fonterra	9(2)(a) 9(2)(a) 9(2)(a)	20/11/24
	Horticulture NZ	9(2)(a) 9(2)(a)	21/11/24
	Federated Farmers	9(2)(a) 9(2)(a) 9(2)(a)	22/11/24
	Forest Owners Association	9(2)(a)	21/11/24
Tokelau	Ministry of Climate, Oceans & Resilience	9(2)(a)	25/10/24 29/11/24

Category	Organisation	Representatives	Date
Iwi/Māori	National Iwi Chairs Forum	9(2)(a)	4/10/24 26/11/24 4/12/24
	Rangitāne Tū Mai Rā Trust (PSGE)	9(2)(a)	25/11/24
	Te Rarawa (PSGE)	9(2)(a)	22/11/24
ENGOs	Forest & Bird		18/11/24
	World Wildlife Fund	9(2)(a)	18/11/24
	Greenpeace Aotearoa	9(2)(a)	18/11/24
	Environmental Defence Society	9(2)(a)	18/11/24
Other	Lawyers for Climate Action (LCANZI)	9(2)(a)	21/11/24
	Compass Climate *(note met as part of the ENGO meeting)*	9(2)(a)	18/11/24
	UNICEF	9(2)(a)	28/11/24
	MfE Climate Youth Advisory Group	Youth representatives	21/11/24

Document 9

Ministry for the Environment
Manatū Mō Te Taiao

Aide memoire: Summary of Key Policy-Relevant Findings of the Latest Global Evidence on Climate Change

Date submitted: 05 December 2024
Tracking number: BRF-5665
Security level: In Confidence

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

Appendices and attachments
Nil

Key contacts at Ministry for the Environment			
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Secondary Author	Georgia Sharp	9(2)(a)	
Responsible Manager	Sophie Heighway	9(2)(a)	
General Manager	Clare Barton	9(2)(a)	

Summary of Key Policy-Relevant Findings of the Latest Global Evidence on Climate Change

Purpose

1. This aide memoire gives you detail on the key policy-relevant aspects of the Intergovernmental Panel on Climate Change (IPCC) most recent Sixth Assessment Cycle (AR6) and the United Nations Environment Programme (UNEP) 2024 Emissions Gap Report.

Background

2. The IPCC is the internationally accepted platform for bringing together existing climate related research in a policy-relevant way. Reports are produced periodically, in cycles of 5-7 years. IPCC reports form the foundation of global and domestic policy development, including the Paris Agreement, providing a trusted and defendable evidence base.

3. The IPCC is currently in its Seventh Assessment Cycle (AR7), which formally began in July 2023. The AR7 is expected to reach conclusion in 2029.

4. The Global Stocktake (GST) is the mechanism in the Paris Agreement to take stock of collective progress, based on the best available science, and influence action by parties. It is important sufficient information from the IPCC is provided in time for the second GST, this has been a contentious issue, and it is likely further negotiation on timing will occur at the next IPCC Session.

5. As a requirement under the Paris Agreement, the next round of Nationally Determined Contributions (NDCs) will contain targets and measures for 2035 and are to be communicated by February 2025. Under the Paris Agreement, these should reflect the latest science, demonstrate progression from previous NDCs, and reflect each Party's highest possible ambition.

6. If global warming is to be constrained to 1.5˚C, then NDC targets and measures will need to be ambitious, and action taken.

IPCC Working Group I: The Physical Science Basis

7. The key policy-relevant findings of the Working Group I contribution to the AR6 of the IPCC, which was released in August 2021, include:

- Human influence on the climate system is unequivocal. This is a stronger statement compared to the IPCC Fifth Assessment Cycle (AR5) and reflects strengthened evidence of the impact of human activities on many different aspects of climate.

- The attribution of human-induced climate change on extreme weather events all around the world has strengthened since the AR5. Many of these events, including heatwaves, intense rainfall and droughts, have become more frequent and intense as a result of climate change.

- Even if emissions were to stop now, some of the changes to the climate system, including sea level rise and loss of glaciers, is irreversible over centuries to millennia. However, the rate and magnitude of these committed changes still depends on future greenhouse gas emissions.

- The report states that the likelihood of high-end emissions scenarios, such as Shared Socio-economic Pathway (SSP) 5-8.5, is *'considered low'* because of recent developments in the energy sector but acknowledges uncertainty in carbon-cycle feedback could push carbon dioxide (CO_2) concentrations towards the levels in SSP5-8.5 under nominally lower emission trajectories.

- A key advance in this cycle is the explicit recognition that sea level rise could fall outside the projected *'likely'* range. A number of the processes driving sea level change, including drivers of rapid ice loss in Greenland and Antarctica, are highly uncertain. As a result, it concludes that sea level rise approaching 2 m by 2100, 5 m by 2150 and 15 m by 2300 under SSP5-8.5 cannot be ruled out.

- Even though the IPCC has revised its estimate upwards of how much warming has occurred already, scenarios show that we can still limit warming to 1.5˚C. It requires net zero CO_2 emissions around 2050 along with substantial reductions in other greenhouse gases in the near-term, such as methane. If global methane emissions are not reduced rapidly, the remaining global carbon budget would shrink considerably.

IPCC Working Group II: Impacts, Adaptation and Vulnerability

8. The key policy-relevant findings of the Working Group II contribution to the AR6 of the IPCC, which was released in February 2022, include:

- We are already experiencing the impacts of climate change in New Zealand and the associated costs, with impacts projected to increase over the coming century.

- Evidence from around the world indicates that delaying action may result in higher future costs when adaptation becomes more urgent and impacts more extreme. While it is difficult to calculate cost implications, the IPCC has given an example that for 1 m of sea level rise the value of exposed assets in New Zealand would be NZD $25.5 billion.

- Climate risks are projected to increase for a wide range of natural and human systems, exacerbated by underlying vulnerabilities and exposure. Indigenous people, small food producers and low-income households will be worst hit by many climate impacts.

- Successful adaptation requires the involvement and partnership of parties at many scales and many sectors, including individuals and households, communities, governments, the private sector, non-governmental organisations, and Māori.

- Embedding effective and equitable adaptation and mitigation in development planning can reduce vulnerability, conserve and restore ecosystems, and enable climate resilient development. Integrated adaptation and mitigation measures are needed to prevent more severe climate change impacts for human and ecosystem health and ensure climate resilient development.

IPCC Working Group III: Mitigation of Climate Change

9. The key policy-relevant findings of the Working Group III contribution to the AR6 of the IPCC, which was released in April 2022, include:

- Net anthropogenic greenhouse gas emissions have increased since 2010 across all major sectors globally, with increasing emissions attributed to urban areas.

- The report contains information that is relevant to the second Emissions Reduction Plan, emission budgets and New Zealand's second NDC. It identifies and assesses many mitigation options that are available now in all sectors including but not limited to, utilising carbon capture and storage technologies, moving toward use of sustainable fuels, and increasing afforestation to act as carbon sinks, offering substantial potential to reduce emissions.

- Greenhouse gas emissions are aggregated on a CO_2 equivalent basis using the Global Warming Potential (GWP) with a time horizon of 100 years (GWP100) with values based on the contribution of Working Group I to the AR6. The GWPs that New Zealand uses for reporting are based on earlier IPCC reports and are fully in line with internationally agreed guidelines under the Paris Agreement.

- A full assessment of various greenhouse gas metrics is provided, and the IPCC notes that the choice of metric depends on the purpose of the analysis and all greenhouse gas emission metrics have limitations and uncertainties, given that they simplify the complexity of the physical climate system and its response to past and future greenhouse gas emissions.

- The split gas targets in the Climate Change Response Amendment Act 2020 reflect New Zealand's recognition of the different warming effects and lifetimes of long-lived versus short-lived gases.

- The report acknowledges that *'high-end scenarios* [such as SSP5-8.5] *have become considerably less likely since AR5 but cannot be ruled out'*, and while no longer considered business as usual projections, they *'can be very useful to explore high-end risks of climate change'*.

UNEP Emissions Gap Report 2024: No more hot air… please!

10. The key policy-relevant findings of the UNEP Emissions Gap Report, which was released in October 2024, include:

- To be on the pathway for 1.5˚C global warming, emissions must fall by 42 per cent and 57 per cent by 2030 and 2035 respectively, compared with 2019 levels. To be on a pathway for 2˚C global warming, emissions must fall by 28 per cent and 37 per cent by 2030 and 2035 respectively, compared with 2019 levels.

- Based on current global conditional NDC commitments and policies, global failure to start delivering immediately and increase ambition in the next NDCs will put the world on course for temperature increases of 2.6-3.1˚C over this century.

- It is still technically possible to meet the 1.5˚C goal, but only if global mobilisation to start cutting emissions begins immediately. If action were to start in 2024, global emissions will need to reduce by an average of 7.5 per cent every year until 2035. It is important to

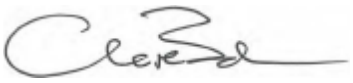
note that New Zealand has a unique emissions profile that is different to that of the global aggregate used to derive this percentage reduction which can be considered when setting second NDC.

- If global emissions in 2030 are not brought below levels implied from current policies and full implementation of current NDCs, it will become impossible to reach a pathway which limits global warming to 1.5˚C with no or limited overshoot, and increase the challenge of limiting warming to 2˚C.

Next steps

11. The Sixty-Second Session of the IPCC will take place in Hangzhou, China from 24-28 February 2025. At this Session the Panel will likely agree to the Assessment Report draft outline and timeline, including which reports will be available in time for the second GST. As well as this, the draft outline for the Methodology Report on Carbon Dioxide Removal Technologies and Carbon Capture Utilisation and Storage will be agreed upon and budgets will be discussed. A briefing will be sent to you after the Session.

Signature



Clare Barton
General Manager – Science & Evidence
Strategy, Stewardship & Performance
05 December 2024

Ministry for the Environment
Manatū Mō Te Taiao

Document 10

Key findings from public feedback and market research on setting NDC2

Date submitted: 11 December 2024
Tracking number: BRF-5695
Security level: In Confidence

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

Appendices and attachments
1. Tokelau submission on NDC2 2. National Iwi Chairs Forum submission on NDC2 3. Market research report

Key contacts at Ministry for the Environment			
Position	***Name***	***Cell phone***	***First contact***
Principal Author	Bruno Aldaz		
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Deputy Secretary	Sam Buckle	9(2)(a)	

Key findings from public feedback and market research on setting NDC2

Purpose

1. This briefing provides key insights from public feedback and market research on setting New Zealand's second nationally determined contribution (NDC2).

2. These insights build on our previous summary of key points and themes identified as part of our targeted engagement with Treaty partners, Tokelau and key stakeholders (BRF- 5664 refers).

Overall key insights

3. Across public feedback and market research we identified some consistent key messages relevant for your upcoming decision on setting NDC2. Feedback received indicates:

    i. Support for setting ambitious, yet feasible and achievable targets with a clear action plan.

    ii. Preference for domestic action while being open to the option for international cooperation.

    iii. Consideration to reduce economic impacts and costs to business and households.

Background

4. You directed Ministry for the Environment (MfE) officials to seek feedback from key stakeholders, Treaty partners and the wider public on setting NDC2 through a three-step approach:

    i. **Targeted engagement** *(completed)*. You received key insights from Treaty partners and key stakeholders on 5 December (BRF-5664)

    ii. **Opportunity for public feedback** *(completed)*. Feedback to the public was open on MfE website from 19 November- 8 December.

    iii. **Market research** *(completed)*. MfE commissioned a private company, The Research Agency (TRA), to explore the public's views on the extent to which NDCs should be achieved domestically, and what role, if any, international cooperation should play. This report is attached as Appendix 3.

5. This briefing focuses on the data and insights generated from step two, the opportunity for feedback and step three, market research.

6. Together, the insights gathered across the above steps will inform Cabinet decisions on setting NDC2.

Key insights from public feedback

Process and participation

7. The opportunity for public feedback was open between 19 November and 8 December (20 days) and attracted 337 submissions. Table 1 below provides a breakdown of submissions by group categories.

Table 1. Submissions received - by group type

Group type	**Number of submissions**
Individuals / other	187
Business / Industry	59
NGO / charity	39
Academic / Subject matter expert	38
Local Government	12
Iwi / Hapū	2
Total	**337**

8. There were five questions posed to the public on MfE website seeking input on how New Zealand should set its NDC2. These five questions are presented below with their corresponding findings.

The Climate Change Commission's advice

Question 1 - Do you have any comments on the Climate Change Commission's advice?

9. Table 2 shows the overall percentage of submitters who expressed agreement/disagreement with the five Commission's key findings. 137 submitters answered this question.

Table 2. Submitters views on the Commission's key findings on NDC2

Climate Change Commission's key findings	**Agree** *(per cent)*	**Disagree** *(per cent)*
1. New Zealand could achieve greater net emissions reductions in the NDC2 period (2031–35) than in NDC1 through domestic action alone.	68	4
2. The Commission estimated feasible level of emissions reductions - up to 69 per cent below 2005 levels by 2035 for NDC2.	4	10

Climate Change Commission's key findings	**Agree** *(per cent)*	**Disagree** *(per cent)*
3. Actions to achieve these emissions reductions would need to start before 2031 to be effective.	7	0
4. Delaying action, or introducing policies that encourage high-emission activities, may make it impossible to make these contributions to emissions reductions through domestic action.	19	2
5. The target contribution of 69 per cent requires New Zealand to assume faster and higher adoption rates of tech and systems changes than are currently expected.	6	1

Priority factors for consideration in setting NDC2

Question 2 - What factors should the Government prioritise when setting NDC2?

10. In total, 273 submitters answered this question. Submitters ranked their top three factors (out of seven) they think were most important to prioritise when setting NDC2. Table 3 shows the highest priority factor identified.

Table 3. Submitters top priority to be considered when setting NDC2

	Respondents ***(per cent)***	**Number of respondents (n)**
Align with Paris Agreement	54	147
Highest possible ambition	22	59
Minimise costs	7	18
Minimise economic impacts	7	18
Align with the Global Stocktake	7	18
Ensure a clear delivery plan	3	7
Relative standing	2	6
Total	100	273

11. When looking at the combined top three priorities from submitters (rather than just the top priority), alignment with the Paris agreement, the Global Stocktake and highest possible ambition were the three highest ranked choices.

12. The above indicates an overall preference from submitters for New Zealand to align with the temperature goal and requirements of the Paris Agreement, while considering our national circumstances and impacts to the economy.

13. Additionally, submitters provided other answers to the factors that should be prioritised when setting NDC. These included: consideration of future environmental and socioeconomic impacts from climate change; New Zealand's highest possible ambition; and our relative international standing (eg, our country's leadership in the Pacific region).

Question 3 - What factors in New Zealand's economic outlook should be taken into consideration when setting NDC2?

14. In total, 217 submitters answered this question. 46 per cent cited a range of economic factors to consider when setting NDC2. These included a range of issues, such as inflation and the cost of living, the importance of exports to the New Zealand economy, and opportunities for electrification in the future. Our ability to take action came in second place in submitters' consideration (27 per cent), followed by New Zealand's availability and potential for renewable energy resources (25 per cent) and particular sector emissions' profiles (eg, agriculture, transport).

Question 4 - What factors do you think are most important for deciding a "fair share" for New Zealand for its NDC2?

15. In total, 231 submitters answered this question. Across responses, the three most relevant factors submitters considered should inform what New Zealand's "fair share" is in determining NDC2 were:

- Our status as a developed country
- New Zealand's ability and capacity to take action, and
- A range of other factors were highlighted by submitters. Factors pointing to an ambitious NDC2 target included New Zealand's high per capita emissions, the need to set a benchmark for other countries to follow, and New Zealand leadership in the Pacific.

16. Others took a different view, highlighting that New Zealand's share of global emissions are very low, and so other, high-emitting countries should do more, the need to consider the affordability and impact on the economy, and our high proportion of agricultural emissions.

The role of offshore mitigation

Question 5 - Should NDC2 be set at a level that is achievable with domestic action only or should it be set at a level that is achievable with a mix of domestic action and international cooperation (offshore mitigation)?

17. In total, 281 submitters answered this question. Of these, 54 per cent, indicated support for NDC2 to be set at a level achievable through a mix of domestic action and international cooperation. 21 per cent favoured a domestic only target, and 25 per cent were unsure, did not answer or selected 'other'.

18. Submitters who indicated 'other', expressed a range of different views on the role that international cooperation and wider climate policy and economic considerations for setting and meeting NDC2.

Submissions from Partners

19. We previously advised you a readout received from engagement with Tokelau and iwi/Māori (BRF 5664 refers). We now have written submissions from Tokelau and the National Iwi Chairs Forum (NICF) – these are attached as Appendix 1 and Appendix 2, respectively. These submissions are summarised below.

Tokelau input for consideration

20. New Zealand's NDCs extend to Tokelau, therefore it is important that you consider Tokelau's interests when setting NDC2.

21. Tokelau is extremely vulnerable to climate impacts and therefore it has a strong interest in ambitious mitigation action by Parties to the Paris Agreement.

22. Tokelau's submission highlights their vulnerability to climate impacts, and its consequences for the people living on the three atolls. *"As an island nation at the forefront of climate change, the priorities for Tokelau are survival - to live and thrive with change".*

NICF input for consideration

23. Pou Take Āhuarangi is the climate-focused branch of NICF, which comprises 77 iwi across Aotearoa. Their written submission recommends the Government set NDC2 with a target level of 69 per cent or greater (of net emissions below gross 2005 level), which differs from their preliminary views we conveyed to you (which was a recommendation for a 55 per cent NDC2).

24. Pou Take Āhuarangi recommends NDC2 is set at a level that is achievable with a mix of domestic action and high integrity international cooperation, prioritising domestic action.

25. Pou Take Āhuarangi expressed this target is the most ambitious of the scenarios outlined in the Commission's advice and supports Aotearoa to reduce emissions at pace to minimise climate impacts on vulnerable communities such as iwi and hapū.

26. To achieve this target, it recommends the Government consider a number of pathways and opportunities, including:

    i. Ensure consistency between NDCs and Emissions Reduction Planning (ERP), including ERP2

    ii. Incorporate full forestry accounting i.e. removing pre/post 1990 distinctions

    iii. Develop a comprehensive Māori emissions reduction strategy within ERPs as outlined in the Climate Change Response Act

    iv. Resource Iwi Māori to reduce their emission footprint and change behaviour

    v. Scale and scope funding for sector-specific needs (e.g., renewable energy, transport)

    vi. Maximise synergies and pathways between mitigation and adaptation

    vii. Enable private-public partnerships: maximising private investment can assist Aotearoa in achieving our targets while minimising the cost to taxpayers, resulting in greater environmental and economic outcomes.

Key insights from market research

27. MfE commissioned The Research Agency (TRA) to conduct market research to gauge the views of the broader New Zealand public on setting NDC2.

28. Respondents answered questions on their awareness, understanding, sentiment, perceptions, and preferences in relation to the Paris Agreement, NDCs, and NDC2.

29. A sample of over 1000 New Zealanders aged 18 and above completed an online survey between 22 November and 2 December 2024. The sample was representative of the New Zealand population based on the recent census considering age, gender and region.

30. Key findings from the market research highlighted:

    i. **The relatively limited knowledge New Zealanders have on the NDC**: only one in three respondents (36 per cent) has previously heard about the NDC and less than half of knew any specific aspects of it.

    ii. **A strong sense of commitment to meet our targets**: the majority (74 per cent) of respondents believe it is important to meet targets set in NDC1.

    iii. **Preference for domestic action, while remaining open to international cooperation**: when presented with the challenges and cost of taking domestic action, the majority (82 per cent) of respondents showed openness to using some level of international cooperation, 35 per cent lean more towards domestic action and 20 per cent lean more towards international cooperation.

    iv. **Prioritising a fair and feasible target while minimising economic impact and cost**: the three most important factors respondents thought the Government should prioritise when setting NDC were: doing our fair share; aiming for feasible ambition and target; and considering the impact and cost to businesses and households. Table 4 provides the full list of factors in order of preference and corresponding percentages.

Table 4. TRA Market research respondents' views on the highest priority factor the New Zealand Government should prioritise when thinking about how to set NDC2

Priority factors to consider when setting NDC2	**Percentage** *(1010 respondents)*
New Zealand doing its fair share of the global effort. *All countries, including New Zealand, need to do their fair share to meet the Paris temperature goal. The level of target that is 'fair' will be different for every country.*	48 per cent
What is feasible based on New Zealand's natural resources, economic sectors, and level of development. *For New Zealand, we might consider our status as a developed country, and our high proportions of agricultural emissions and renewable electricity.*	42 per cent
The impact and cost to business and households. *More action to reduce emissions could impact the competitiveness of New Zealand businesses and place unnecessary costs on households.*	31 per cent

Priority factors to consider when setting NDC2	**Percentage** *(1010 respondents)*
Meeting Paris Agreement temperature goals	23 per cent
Global Stocktake: *Countries need to set higher targets and take increased action to reduce their emissions because the first ever Global Stocktake of emissions under the Paris Agreement found the world is off track to meet its goals*	22 per cent
Setting the highest possible target for our **NDC based on our national circumstances and capacity**	20 per cent
None of the above	10 per cent

Next steps

31. Ministerial consultation on the draft Cabinet paper closes today (11 December). Insights from targeted engagement and public feedback will be incorporated into the NDC2 Cabinet paper final draft.

32. We are working with your office to update the Cabinet paper for lodgement on 12 December, ahead of the ECO Committee on 18 December.

33. We plan to make submissions on NDC2 public as part of a broader proactive release of NDC2 papers, approximately six weeks following the announcement of the target.

Signatures

Sam Buckle
Deputy Secretary
Climate Change Mitigation and Resource Efficiency
11 December 2024

Hon Simon WATTS
Minister of Climate Change
Date

Document 10.1

Appendix 1. Tokelau submission on NDC2

Appendix 2. National Iwi Chairs Forum submission on NDC2

Document 10.3

Appendix 3. Market research report (TRA)

Government of Tokelau
Ministry of Climate, Oceans, and Resilience (MiCORE)

DATE: 6 December 2024

SUBJECT: Tokelau Input for the second Nationally Determined Contributions (NDC2) 2031-35

"Tokelau welcomes the inclusion in New Zealand's NDC2, which builds on the previous NDCs as required under the Paris Agreement.

Tokelau continues to pride herself for limiting her emissions to a minimum through sacrifices and challenges faced when measured against others. The battle against the impact of climate change is real for the people living on the three atolls of Tokelau. As an island nation at the forefront of climate change, the priorities for Tokelau are survival --- to live and thrive with change.

Emissions affect the people on the three low lying atolls of Tokelau who have very limited resources and access to external resources to fight the effects borne from emissions.

Tokelau appreciates the inclusion of her input into New Zealand's NDCs as part of the submission under the Paris Agreement, and acknowledges the commitment made to reduce its emission in previous and the current NDCs. Tokelau continues to have low global emissions and yet faces impacts from climate change. Tokelau, nevertheless, calls for further emissions reductions to save Tokelau."

NATIONAL DOMESTIC CONTRIBUTION 2

SUBMISSION

POU TAKE ĀHUARANGI

NATIONAL IWI CHAIRS FORUM

8 December 2024

Contact: Marama Royal
Email: 9(2)(a)

INTRODUCTION

1. This submission has been developed by Pou Take Āhuarangi of the National Iwi Chairs Forum (**Pou Take Āhuarangi**) to provide feedback on Aotearoa New Zealand's 2035 international climate change target (**NDC2**).

2. The National Iwi Chairs Forum (**NICF**) comprises the Chairpersons of approximately 77 iwi across Aotearoa. It is a platform for sharing knowledge and information between iwi.

3. The vision statement of NICF is guided by the following whakatauki:

   He waka kōtuia kāhore e tukutukua ngā mimira

   A canoe that is interlaced will not become separated at the bow.

   Through unity, through sharing and working together, we will honour our past and create a better future for whānau, hapū, and iwi.

4. NICF's primary focus is enabling the aspirations of Māori in cultural, social, economic, environmental, and political development, while retaining the mana and autonomy of individual iwi to advance their own aspirations. The NICF's work is organised under a range of Pou (branches). Pou Take Āhuarangi is the climate-focused branch of NICF, which includes issues relating to our changing climate and emergency management. Pou Take Āhuarangi are supported by a group of technical iwi advisors.

5. Pou Take Āhuarangi has been endorsed by successive meetings of the NICF to engage with the Crown and advance the interests of iwi and hapū in relation to climate policies and legislation.

6. In all its engagement, the work of Pou Take Āhuarangi (and our advisors) has been:

   a. advanced for the benefit of all iwi and hapū, and ultimately all Māori, and;

b. founded on the principle that Te Tiriti o Waitangi underpins the relationship between iwi/hapū and the Crown.

7. Pou Take Āhuarangi has also been clear throughout its engagement with the Crown that:

    a. the engagement of Pou Āhuarangi (and its advisors) with the Crown does not usurp the mana and/or autonomy that each iwi and hapū has in respect of their own relationship with the Crown;

    b. each iwi and hapū is free to pursue its own course of engagement or other action;
    c. Pou Take Āhuarangi is not mandated to negotiate a collective settlement of rights and interests on behalf of iwi;

    d. any options identified and developed in the course of engagement with the Crown must be brought back to the motu for discussion, and;

    e. the Crown's engagement with Pou Take Āhuarangi and its advisors is in addition to, and is not a substitute for, the Crown's obligation to engage directly with iwi and hapū, and with Māori more generally.

8. To that end, this feedback by Pou Take Āhuarangi is provided in addition to, and is not a substitute for, the feedback that may be received on NDC2 from individual iwi and hapū, which will informed by unique iwi and hapū rights, interests and responsibilities, te tino rangatiratanga of iwi and hapū at place as guaranteed by Te Tiriti o Waitangi, and their own experiences.

RECOMMENDATIONS

9. Pou Take Āhuarangi recommends:

    a. **Represent New Zealand's Highest Possible Ambition in Light of National Circumstances:** Set a target of 69% or greater by 2035. This target is the most ambitious of the scenarios outlined in the report, and aligns with the need for

Aotearoa to be ambitious and reduce emissions at pace to minimise climate impacts on vulnerable communities such as iwi and hapū.

b. **Incorporate full forestry accounting i.e. removing pre/post 1990 distinctions -** Incorporate full forestry accounting to ensure equitable transition pathways for iwi/Māori with forestry interests, including in converting exotic forest to native forest to progress land resilience benefits.

c. **Resource Iwi Māori to reduce emission footprint and change behaviour -** develop a targeted pool of resourcing to enable Iwi Māori to reduce emissions. These initiatives could include renewable energy such as micro scale solar grids, nature based solutions including indigenous biodiversity and afforestation, transportation transitions and other emission reduction activities.

POU TAKE ĀHUARANGI RESPONSES

10. Pou Take Āhuarangi notes the Commission analysed scenarios of up to 69% reduction domestically, yet none of their scenarios are fully compliant with the 1.5 ºC target, with the Paris Agreement, or with the Climate Change Response Act. The HTHS scenario outlined in the Commission's report comes closest, and arguably reduces emissions sufficiently by 2050, but does not cut emissions fast enough in earlier decades.

11. International 1.5C-consistent pathways (such as the Climate Action Tracker, and IEA's net-zero energy scenario) reduce fossil fuel emissions more rapidly than the Commission's scenarios. These would put a 1.5C aligned 2035 domestic reduction target for Aotearoa at up to 80% gross-net, assuming the level of forestry in the Commission's HTHS scenario. For comparison, the United Kingdom recently announced their commitment to an 81% target by 2035.

12. However, based on the scenarios provided in the report, Pou Take Āhuarangi advocates for a target of 69% or greater by 2035. This target is the most ambitious of the scenarios outlined in the report, and aligns with the need for Aotearoa to be ambitious and reduce emissions at pace to minimise climate impacts on vulnerable communities such as iwi and hapū.

13. To achieve this target, Pou Take Āhuarangi recommends the Government consider a number of pathways and opportunities, including:

    a. **Ensuring consistency between NDCs and Emissions Reduction Planning (ERP), including ERP2** - emissions reduction plans should be the plan to achieve our NDCs, however previous and current NDCs and ERPs indicate these can become misaligned. For example, the proposed ERP2 is unlikely to achieve our current NDC of 50% by 2030, and is focused heavily on offshore mitigation and technological advances. Pou Take Āhuarangi therefore advocates for consistency between NDC targets and Emissions Reduction Plans.

    b. **Incorporate full forestry accounting i.e. removing pre/post 1990 distinctions -** A large proportion of forested Māori freehold land was planted before 1990. Any land planted before 1990 is ineligible for earning units under the Emissions Trading Scheme (ETS) for carbon removals, and if such land is deforested then landowners (including Māori landowners) incur an emissions liability under the ETS. These financial penalties are preventing Aotearoa from achieving our emissions reduction targets as landowners are penalised if there is an attempt to change land use to enable a higher emissions reduction activity on the land, iwi/Māori from converting exotic forest to native forest, even when the latter offers land resilience benefits. Pou Take Āhuarangi recommends the Government incorporate full forestry accounting to ensure equitable transition pathways for iwi/Māori with forestry interests.

    c. **Develop a comprehensive Māori emissions reduction strategy within ERPs as outlined in the CCRA** - The Climate Change Response Act 2002 (CCRA) outlines in Section 3A(ad) the Minister must include in an emissions reduction plan a strategy to recognise and mitigate impacts on iwi and Māori of reducing emissions. The Government has not yet developed this strategy nor recognised the scale of climate impacts on iwi Māori. Pou Take Āhuarangi recommends the development of this strategy must be prioritised and recognise the need for scaled and scoped sector-specific resource for iwi Māori to reduce emissions within their respective interests and industries.

d. **Resource Iwi Māori to reduce emission footprint and change behaviour** - Iwi Māori are some of the most vulnerable communities to climate change with over 80% of marae at critical risk to the impacts of climate change. Iwi Māori are incentivised to want to contribute to reducing emissions. In light of the focus of domestic action, Iwi Māori want to continue to be at the forefront of leading change. However, specific and targeted resourcing is required to enable emission reduction. There are current funding mechanisms for Māori to participate in climate action however the pool of resourcing is utilised for everything from climate resilience to climate emissions reduction. Pou Take Āhuarangi recommend a targeted pool of resourcing to enable Iwi Māori to reduce emissions. These initiatives could include renewable energy such as micro scale solar grids, nature based solutions including indigenous biodiversity and afforestation, transportation transitions and other emission reduction activities.

e. **Scale and scope funding for sector-specific needs** - the Māori economy is heavily invested in primary industries. Iwi Māori within these industries are already innovating and adopting transition strategies to reduce emissions, however specific scaled and scoped resource are required for iwi Māori to fund the implementation of these strategies. For example, there are many large-scale Māori agribusinesses that are adopting low-emissions practices, however they require further, agri-specific resourcing to assist their innovation and adoption of low-emission pathways. Pou Take Āhuarangi therefore recommend specific scaled and sector-specific resourcing to fund the transition of iwi Māori agri-business interests to a low-emissions economy. This funding pool can be linked to the more general resourcing for emissions reduction at place for iwi Māori as set out above.

f. **Maximise synergies and pathways between mitigation and adaptation -** Domestic action that delivers co-benefits for both reducing emissions and developing resilience should be prioritised. Here, for example, strategically designed indigenous biodiversity afforestation policy can deliver removals by means of land use change and climate resilient landscapes at no or low cost to the ratepayer or taxpayer.

g. **Enable Private-public partnerships -** Maximising the role of private investment can assist Aotearoa in achieving our targets while minimising the cost to taxpayers, resulting in greater environmental and economic outcomes. Successful examples of such partnerships include the Te Hiku o Te Ika – Forests of the North initiative, where iwi, local councils, and private sector investors have worked together to restore native forests and sequester carbon while creating local employment. Additionally, the Māori Agribusiness Extension Programme (MABx) has shown how collaboration between Māori landowners, the Ministry for Primary Industries, and agribusiness experts can reduce emissions through sustainable land-use practices. These models demonstrate that PPPs grounded in tikanga Māori and mātauranga Māori not only reduce emissions but also strengthen community resilience, create jobs, and protect the environment. Supporting and expanding PPPs that align with Māori values will ensure equitable and effective pathways to a low-emissions future for Aotearoa.

14. Pou Take Āhuarangi wish to emphasise the need for any advice on climate matters, including this report, to consider specific impacts and opportunities for Māori communities. While this report provided some examples on climate impacts on Māori employment, agribusiness and forestry interests, there was overall little analysis provided in this report on impacts and benefits to iwi Māori and the Māori economy - despite iwi Māori and their assets being among the most vulnerable in Aotearoa to climate change, *and* iwi Māori leading the way to adopting low emission pathways to maximise economic opportunities and continue growing the Māori economy past its valuation of over NZD$70bn.

What factors should the Government prioritise when setting NDC2?

15. Pou Take Āhuarangi have provided comment on each of the factors listed:

a. **Represent New Zealand's Highest Possible Ambition in Light of National Circumstances -** Aotearoa must demonstrate its highest possible ambition to meet its obligations under the Paris Agreement and uphold its commitment to our future generations. By acting with the greatest ambition possible, we honour the principles of intergenerational equity and fulfil our collective responsibility to safeguard the environment for our mokopuna and all of Aotearoa.

b. **Align with the Global Stocktake Recommendations -** Aotearoa has agreed to the Global Stocktake recommendations and committed to a 1.5°C aligned NDC, as reflected through our participation in the High Ambition Coalition. Following through on these international agreements upholds our commitments and ensures we are accountable on a global scale. These commitments are an extension of our responsibilities to care for the environment and uphold our agreements and relationships with other nations, specifically those in the Pacific.

c. **Align with the Temperature Goal of the Paris Agreement -** Limiting global warming to well below 2°C, while striving for 1.5°C, is critical for the survival and resilience of iwi Māori and their assets. The temperature goal aligns with the purpose of the CCRA, which reflects our shared obligations to protect our environment from climate impacts. These goals cannot be compromised, as they are intrinsically tied to the survival of iwi Māori.

d. **Minimise Costs from Meeting the Target -** Taking strong, collective action now to reduce emissions is significantly more cost-effective than delaying action, and will mitigate the worst costs of climate change for future generations. By adopting ambitious targets, Aotearoa ensures we are not leaving climate debt to future generations.

e. **Minimise Impacts to the Economy -** The transition to a low-emissions economy is essential to achieve our targets and can be managed through policies that support affected sectors and communities. For iwi Māori, this transition provides an opportunity to strengthen our economies, diversify land-use practices, and enhance community resilience. Weak targets delay inevitable change and increase the risks of abrupt disruptions, damaging both Māori and national economies. There is also very real potential for reduced access to international markets and finance if Aotearoa does not keep up with global trends i.e. reducing emissions and setting ambitious targets.

f. **Ensure There is a Clear Plan for Delivering the Target -** The scenarios provided by the Climate Change Commission and international analyses demonstrate that

ambitious targets are achievable. Strategic planning must reflect Māori values and knowledge systems to ensure the transition is equitable and grounded. Clear plans can enable Māori communities to prepare for and participate meaningfully in the transition.

g. **Consider New Zealand's Relative Standing to Other Comparable Countries/Economies -** Aotearoa must lead with ambition, prioritising relationships with the Pacific, aligning with countries in the High Ambition Coalition and setting an example for the global community. Iwi Māori ties to the Pacific specifically call for us to honour our Pacific relationships and responsibilities. Many nations, including those with fewer resources than Aotearoa, are taking bold action. We should stand with those countries leading meaningful climate action, ensuring Aotearoa's reputation and trade relationships reflect our commitment to a just and sustainable future. Aligning with global ambition is not just strategic - it upholds our collective mana and integrity.

What factors in New Zealand's economic outlook should be taken into consideration when setting NDC2?

16. The world is in the midst of a global shift towards renewable energy, low-emissions industries, and sustainable food systems. Aotearoa cannot afford to lag behind. As Ngāi Tahu Farming has demonstrated through their regenerative farming practices, embracing sustainable methods can improve land health, reduce emissions, and maintain profitability. Similarly, iwi-led renewable energy initiatives, like Te Rarawa's solar energy projects, show that Māori communities are already adapting and leading this transition.

17. To remain economically resilient, Aotearoa must invest in these forward-thinking strategies. Clinging to outdated economic models only leaves us vulnerable. Post-pandemic conditions have shown the importance of adaptability, innovation, and collective action. Delaying the transition to a low-emissions economy is the worst forecast for iwi Māori and the nation, as it increases the risk of sudden economic disruption and more severe climate impacts. By taking bold action now, we can ensure that Māori businesses, landowners, and communities are part of a thriving, future-focused economy.

What factors do you think are most important for deciding a "fair share" for New Zealand for its NDC2?

18. Aotearoa has a clear responsibility to set ambitious emissions targets, not only to uphold our commitments under the Paris Agreement, but to ensure protection of its environment. While Aotearoa may be a small emitter in absolute terms, over 130 countries emit less than us, and their collective emissions surpass those of major nations like the United States or China. For the Paris Agreement to be effective, every nation must do their fair share, including Aotearoa, which has historically benefited from high-emissions activities like land clearance.

19. The Government must recognise that ambitious climate action is in our own self-interest. Our GDP per capita is similar to the European Union, and we have one of the highest per-capita emissions rates globally. As a wealthy nation with a high historical contribution to emissions, we have the capacity and the responsibility to move faster than average. As the largest Pacific nation, we must uphold our repeated commitments to support smaller island nations by setting targets that reflect genuine leadership.

20. Other nations are setting ambitious targets based on science. As noted above, the United Kingdom has committed to an 81% reduction, while the European Union is on track for over 70%, and Australia is consulting on a 65-75% reduction range. Even China has signalled ambitious action. Our peers are moving decisively; Aotearoa risks isolating itself and damaging its international standing if we lag behind. The outdated idea that our clean energy system excuses inaction no longer holds - the UK's per-capita energy emissions are already lower than ours and continue to decline.

21. The potential for forestry removals in Aotearoa gives us a unique opportunity to balance our high methane emissions while contributing to global carbon sequestration efforts. By embracing ambitious targets, we can achieve a just and managed transition that supports vulnerable communities, strengthens our economy, and honours our commitments to our Pacific and global partners.

Should NDC2 be set at a level that is achievable with domestic action only or should it be set at a level that is achievable with a mix of domestic action and international cooperation (offshore mitigation)?

22. Aotearoa can feasibly achieve a domestic emissions reduction target of at least 69% if the Government acts with urgency and commitment.

23. However, if domestic policy implementation is delayed, Aotearoa has a responsibility to uphold its fair share of global emissions reductions through cooperation with other countries. Pou Take Āhuarangi recommends NDC2 is set at a level that is achievable with a mix of domestic action and international cooperation, however in such a manner where our domestic action is prioritised.

24. To maintain credibility under Article 6 of the Paris Agreement, Aotearoa must implement strong governance to ensure any international cooperation on emissions reductions is ethical and effective. Safeguards are necessary to avoid purchasing “hot air” credits, those linked to human rights violations, or credits from countries that fail to account properly for carbon transfers.

25. Furthermore, cooperation through Article 6 is not a replacement for our climate finance obligations. We have a duty to support developing nations, particularly our Pacific neighbours, in their transitions to low-emissions economies. Investing in climate finance reinforces our role as a responsible member of the global community.

26. By combining ambitious domestic action with ethical international cooperation and meaningful climate finance, Aotearoa can become a climate leader and continue investment in transitioning iwi Māori to low emission economies.

8 December 2024

Pou Take Āhuarangi, National Iwi Chairs Forum

NDC2 Public Sentiment and Understanding

Topline Report

December 2024
TRA x Ministry for the Environment

TRA

In summary

Background

By February next year, New Zealand must set its second nationally determined contribution (NDC2) – a target commitment to reduce emissions for the years 2031-2035 under an international treaty, known as the Paris Agreement.

To inform this process, the Ministry for the Environment (MfE) commissioned consumer market research to gauge the views of the broader New Zealand public. The research aimed to understand public awareness of New Zealand's international emissions reductions targets and capture sentiments around them, ensuring a wide cross section of opinions were considered.

Research methodology

The research was conducted through an online survey, capturing the views of n=1,010 New Zealanders. The sample was nationally representative of New Zealanders 18+ years based on age, gender, and region of the recent population census (margin of error +/-3.1%).

The survey ran between the 22 November and 2 December 2024. Respondents answered questions on their awareness, understanding, sentiment, perceptions, and preferences in relation to New Zealand's international emissions reductions targets, including the Paris Agreement, NDC, and NDC2.

Key findings

Most New Zealanders have heard of the Paris Agreement, however their understanding is very limited.
Nearly 3 in 4 (74%) are aware of the Paris Agreement. However, less than half (41%) claim to know more than just the name.

When prompted with specific details about the Paris Agreement, less than half of respondents knew about each of the key points. Over 1 in 3 (36%) did not know any of these key elements.

Awareness of key points about Paris Agreement – % aware	Total
Limit the increase in the global average temperature to be within 2°C above the temperature that existed before widespread industrialisation and pursue efforts to limit the temperature increase to 1.5°C	45%
Developed nations provide financial support to developing countries to help them reduce emissions and adapt to the effects of climate change	38%
Designed to ensure countries are accountable for their climate actions and progress, aiming to build trust and step up their actions through robust reporting and review processes	27%
Strengthen the ability of developing countries to address the impacts of climate change	22%
None of the above	36%
Base n	1010

The Nationally Determined Contribution (NDC) is largely unknown to New Zealanders.

Around 1 in 3 of New Zealanders (36%) have heard of the NDC.

Whilst most people felt their knowledge of the NDC was limited (15% claiming to know a little or lot), some awareness of the specific details emerged when prompted. This suggests that while some knowledge exists, it is not strongly linked to the NDC in New Zealanders' minds. Over half (54%) were unaware of any of the key details.

Knowledge of NDC details – % aware	Total
Countries are expected to do their best to reduce greenhouse gas emissions, based on what they can achieve, their responsibilities, and their resources. This means each country's emissions reduction target should be as high as possible, given their national circumstances	26%
Countries can meet their NDCs by reducing the overall amount of greenhouse gas emissions they produce or by carrying out activities that remove these emissions from the atmosphere, such as planting trees (greenhouse gas emissions trap heat in the atmosphere and warm the planet)	24%
NDCs are greenhouse gas emissions reduction targets. They express countries' goal to reduce emissions by a certain amount. In other words, it is a country's contribution to global efforts to limit the global average temperature to be within 2°C above the temperature that existed before widespread industrialisation, while pursuing efforts to limit the temperature increase to 1.5°C	21%
Every country needs to set a Nationally Determined Contribution (NDC) under the Paris Agreement	18%
NDCs are set every five years. The Paris Agreement states that each country's next NDC must be higher than its previous NDC	11%
None of the above	54%
Base n	1010

There is strong belief that New Zealand should meets its current NDC.

A majority (74%) of New Zealanders believe it is important to meet targets set in NDC1. Sentiment is stronger among urban residents (76%) than regional and rural residents (67%).

New Zealanders are open to using international cooperation to set and achieve NDC2, but most prefer a focus on domestic action.

When presented with the realities of taking domestic action versus international cooperation, the majority (82%) of New Zealanders showed openness to using some level of international cooperation. However, many prefer a focus on domestic action (35%) or an even mix of domestic and international efforts (45%). A smaller group (19%) supports leaning more heavily on international cooperation.

Preference for action taken - % who lean towards domestic action versus to international cooperation				
Lean strongly towards more domestic action (0%-20% scale)	Lean towards more domestic action (21%-40% scale)	An even mix of domestic and international cooperation (41%-60% scale)	Lean towards more international cooperation (61%-80% scale)	Lean strongly towards more international cooperation (81%-100% scale)
18%	17%	45%	11%	9%

Those who showed greater openness to international cooperation demonstrated understanding of NZ's constraints. As one respondent commented, "All domestic options are impractical for such a small country and will cause further economic problems for our main income options".

Doing our fair share, doing what is feasible, and the impact and cost to businesses and households are the top three factors New Zealanders think the Government should prioritise when setting NDC2.
These factors were the top 3 priorities across gender, age, and location (urban/ rural).

Factors the New Zealand Government should prioritise when thinking about how to set NDC2 - % selected	Total
New Zealand doing its fair share of the global effort. All countries, including New Zealand, need to do their fair share to meet the Paris temperature goal. The level of target that is 'fair' will be different for every country	48%
What is feasible based on New Zealand's natural resources, economic sectors, and level of development. For New Zealand, we might consider our status as a developed country, and our high proportions of agricultural emissions and renewable electricity	42%
The impact and cost to business and households. More action to reduce emissions could impact the competitiveness of New Zealand businesses and place unnecessary costs on households	31%
Meeting Paris Agreement temperature goals	23%
Countries need to set higher targets and take increased action to reduce their emissions because the first ever Global Stocktake of emissions under the Paris Agreement found the world is off track to meet its goals	22%
Setting the highest possible target for our NDC based on our national circumstances and capacity	20%
None of the above	10%
Base n	1010

In detail

Background

By February next year, New Zealand must set its second nationally determined contribution (NDC2) – a target commitment to reduce emissions for the years 2031-2035 under an international treaty, known as the Paris Agreement.

To inform this process, The Ministry for the Environment (MfE) commissioned consumer market research to gauge the views of the broader New Zealand public. The research aimed to understand public awareness of New Zealand's international emissions reductions targets and capture sentiments around them, ensuring a wide cross section of opinions were considered.

Research Objective

Build an evidence base of the public's awareness, understanding, sentiment, perceptions, and preferences in relation to New Zealand's international emissions reductions targets (including knowledge of the Paris Agreement, NDC, and NDC2).

The evidence will contribute to advice to the Minister (December 2024) and inform the messages that are communicated to the public on this action (early 2025).

Research Methodology

Research was conducted through an online survey capturing the views of n=1,010 New Zealanders. The sample was nationally representative of New Zealanders 18+ years based on age, gender, and region of the recent population census (margin of error +/-3.1%).

The survey ran between the 22 November and 2 of December 2024.

The final data was post-weighted to correct for any minor differences, and ensure the final data represents 18+ New Zealanders based on age, gender, and region as per the most recent population census.

Respondents answered questions on their awareness, understanding, sentiment, perceptions, and preferences in relation to New Zealand's international emissions reductions targets, including the Paris Agreement, NDC, and NDC2. Specifically the survey covered:

- Demographic profiling:
    - Age, gender, region, living in urban/rural, ethnicity, and household income
- Understanding of the Paris Agreement and NDC
    - Knowledge level and awareness of key points in the Paris Agreement
    - Knowledge level and awareness of key points about the NDC
- NDC targets and views on how to set them
    - Importance of meeting NDC1
    - Current global progress and preferred way of setting NDC2 and why

    - Important factors the government should consider when setting NDCs

Development of the survey:

- Topic areas including wording of questions were discussed and aligned with both the TRA and MfE project teams.
- To ensure the content of the survey was presented neutrally, and that respondents could understand and consider the questions from an unbiased perspective, the survey was cognitively tested with four New Zealanders (across different age bands, a mix of males and females, and socio-economic status). Refinements to the questions identified through this process were incorporated into the final survey before it was sent out to the public.

Data displayed in this document is rounded to the nearest whole number.

The findings

Most New Zealanders have heard of the Paris Agreement.

Nearly 3 in 4 (74%) are aware of the Paris Agreement. Awareness is higher among males than females.

Table 1: Awareness of Paris Agreement – % aware (net heard name + know a little + know a lot)

	Total	Male 18 - 34 years	Male 35 - 54 years	Male 55+ years	Female 18 - 34 years	Female 35 - 54 years	Female 55+ years	Urban residents	Regional/ rural residents
Aware	74%	80%	82%	93%	54%	62%	69%	75%	72%
Base n	1010	140	184	166	154	194	167	855	149

Question: PA_KNW: To start off, do you know about the Paris Agreement?
Blue / red highlights indicate the score being significantly lower / higher than all other groups

Knowledge about the Paris Agreement is relatively limited.

Less than half (41%) claim to know more than just the name. This increases to about half among males, however less than a third of females say they know something about the Agreement.

Table 2: Awareness of Paris Agreement – % aware (net know a little + know a lot)

	Total	Male 18 - 34 years	Male 35 - 54 years	Male 55+ years	Female 18 - 34 years	Female 35 - 54 years	Female 55+ years	Urban residents	Regional/ rural residents
I know a lot about it	5%	11%	6%	2%	6%	3%	2%	5%	4%
I know a little about it	36%	38%	45%	53%	19%	26%	32%	37%	34%
NET: I know a lot /know a little	41%	49%	50%	55%	25%	29%	34%	41%	38%
Base n	1010	140	184	166	154	194	167	855	149

Question: PA_KNW: To start off, do you know about the Paris Agreement?
Blue / red highlights indicate the score being significantly lower / higher than all other groups

Among those who reported to know something about the Paris Agreement, the most common associations were 'emissions' and it being an international treaty. People who claimed to have deeper knowledge were more likely to mention that the Agreement related a country's commitment to reduce emissions.

Selected quotes – 'In your own words, how would you describe the Paris Agreement to someone you know?':

- "An attempt to bring carbon atmospheric emissions to a level it was back in 1990, I think. Intention being to reduce the extreme impact of global warming."

- "The Paris Agreement was drawn up and agreed up by several countries to set targets to reduce greenhouse gas emissions and reduce the impact of climate change."
- "National commitments and regular updates."

When prompted with specific details about the Paris Agreement, less than half of respondents knew about each of the key points. On average, people knew only 1.3 out of the 4 details presented and over 1 in 3 (36%) did not know any of these key elements.

Table 3: Awareness of key points about Paris Agreement (presented list) – % aware

	Total	Male 18 - 34 years	Male 35 - 54 years	Male 55+ years	Female 18 - 34 years	Female 35 - 54 years	Female 55+ years	Urban residents	Regional / rural residents
Limit the increase in the global average temperature to be within 2°C above the temperature that existed before widespread industrialisation and pursue efforts to limit the temperature increase to 1.5°C	45%	48%	50%	63%	27%	34%	43%	45%	46%
Developed nations provide financial support to developing countries to help them reduce emissions and adapt to the effects of climate change	38%	42%	42%	50%	25%	26%	39%	38%	36%
Designed to ensure countries are accountable for their climate actions and progress, aiming to build trust and step up their actions through robust reporting and review processes	27%	27%	30%	34%	13%	19%	33%	26%	29%
Strengthen the ability of developing countries to address the impacts of climate change	22%	23%	21%	25%	12%	15%	31%	22%	22%
None of the above	36%	32%	29%	19%	53%	49%	39%	36%	35%
Base n	1010	140	184	166	154	194	167	855	149

Question: PA_KNW_DTL: Before today, which of the following key points of the Paris Agreement did you know about?
Blue / red highlights indicate the score being significantly lower / higher than all other groups

The Nationally Determined Contribution (NDC) is largely unknown to New Zealanders.

Around 1 in 3 of New Zealanders (36%) have heard of the NDC. Awareness is generally low across all sub-groups, except for younger males 18-34 where awareness is marginally higher (45%). Knowledge of the NDC is extremely limited with 1 in 6 (16%) claiming to know a little or lot about it.

Table 4: Awareness of NDC – % aware (net heard name + know a little + know a lot)

	Total	Male 18 - 34 years	Male 35 - 54 years	Male 55+ years	Female 18 - 34 years	Female 35 - 54 years	Female 55+ years	Urban residents	Regional/ rural residents
I know a lot about it	2%	4%	4%	1%	1%	2%	0%	2%	0%
I know a little about it	14%	17%	15%	14%	15%	11%	11%	13%	15%
I've only heard the name	21%	25%	19%	23%	21%	18%	20%	21%	22%
NET: Aware	36%	45%	37%	39%	38%	31%	31%	36%	37%
Base n	1010	140	184	166	154	194	167	855	149

Question: NDC_KNW: Another part of the Paris Agreement is something called the Nationally Determined Contribution (NDC). Do you know about the NDC?
Blue / red highlights indicate the score being significantly lower / higher than all other groups

Emissions reductions and global cooperation were the strongest top of mind associations for those who claim to know something about the NDC.

Selected quotes – 'In your own words, how would you describe the Nationally Determined Contribution (NDC) to someone you know?':

- "Individual countries' contribution to reducing global warming."
- "It is where the larger wealthier and larger greenhouse emitters building a fund to support the smaller nations most affected such as the Pacific Islands."
- "NDCs sets out how countries are to contribute towards reducing greenhouse emissions which are being held accountable for causing global warming."

Table 5: Spontaneous mention of NDC details (themed) - among those who know something about the NDC

	Total
Emissions Reduction	30%
Global Cooperation	24%
National commitments	19%
Financial Contributions/Funding	18%
Developed vs Developing Nations	17%
Climate Action Plans	9%
Emissions Targets/Goals	1%
Base n	153

Question: NDC_KNW_OE: In your own words, how would you describe the Nationally Determined Contribution (NDC) to someone you know? This can include things such as what it is, its purpose, how it was established, etc.
Blue / red highlights indicate the score being significantly lower / higher than all other groups

Whilst most people felt their knowledge was limited, some awareness of the specific details about the NDC emerged when prompted. Over 1 in 5 knew that:

- Each country's target should be as high as possible given their national circumstances (26%)
- Countries can meet their NDCs by reducing overall amount of GHG emissions (24%)
- NDCs are GHG emissions reductions targets (21%)

This suggests that some knowledge exists but is not clearly attributed to the NDC in New Zealanders' minds.

However, over half (54%) were unaware of any of the key details even when presented. Younger females held the least knowledge about the NDC with over 2 in 3 (69%) not knowing any of the specifics.

Table 6: Knowledge of NDC details – % aware

	Total	Male 18 - 34 years	Male 35 - 54 years	Male 55+ years	Female 18 - 34 years	Female 35 - 54 years	Female 55+ years	Urban residents	Regional / rural residents
Countries are expected to do their best to reduce greenhouse gas emissions, based on what they can achieve, their responsibilities, and their resources. This means each country's emissions reduction target should be as high as possible, given their national circumstances	26%	25%	25%	30%	18%	19%	36%	26%	29%
Countries can meet their NDCs by reducing the overall amount of greenhouse gas emissions they produce or by carrying out activities that remove these emissions from the atmosphere, such as planting trees (greenhouse gas emissions trap heat in the atmosphere and warm the planet)	24%	24%	28%	30%	10%	20%	28%	24%	24%
NDCs are greenhouse gas emissions reduction targets. They express countries' goal to reduce emissions by a certain amount. In other words, it is a country's contribution to global efforts to limit the global average temperature to be within 2°C above the temperature that existed before widespread industrialisation, while pursuing efforts to limit the temperature increase to 1.5°C	21%	19%	28%	29%	10%	14%	24%	20%	25%
Every country needs to set a Nationally Determined Contribution (NDC) under the Paris Agreement	18%	19%	19%	25%	7%	14%	22%	18%	19%
NDCs are set every five years. The Paris Agreement states that each country's next NDC must be higher than its previous NDC	11%	15%	13%	13%	10%	7%	9%	11%	11%
None of the above	54%	51%	50%	48%	69%	60%	51%	55%	52%
Base n	1010	140	184	166	154	194	167	855	149

Question: NDC_KNW_DTL: Before today, which of the following did you know about the Nationally Determined Contribution (NDC)?
Blue / red highlights indicate the score being significantly lower / higher than all other groups

There is strong belief that New Zealand should meet its current NDC target.

A majority (74%) of New Zealanders believe it is important for our country to meet the targets set in NDC1. This sentiment is strongest among females 35-54 years and urban residents.

Table 7: Importance of meeting NDC1 - (somewhat important + very important)

	Total	Male 18 - 34 years	Male 35 - 54 years	Male 55+ years	Female 18 - 34 years	Female 35 - 54 years	Female 55+ years	Urban residents	Regional/ rural residents
NET: Important	74%	77%	70%	66%	78%	82%	74%	76%	67%
Base n	1010	140	184	166	154	194	167	855	149

Question: NDC_TARGETS_IMP: How important do you think it is for New Zealand to meet our current Nationally Determined Contribution (NDC1)?
Blue / red highlights indicate the score being significantly lower / higher than all other groups

New Zealanders are open to using international cooperation to set and achieve NDC2.

When presented with the facts about what it would mean for New Zealand to take domestic action versus international cooperation, the majority (82%) of New Zealanders showed openness to using some level of international cooperation.

Table 8: Preference for action taken – % who are open to international cooperation

	Total	Male 18 - 34 years	Male 35 - 54 years	Male 55+ years	Female 18 - 34 years	Female 35 - 54 years	Female 55+ years	Urban residents	Regional/ rural residents
Openness to international cooperation (21%-100% scale)*	82%	79%	85%	85%	84%	79%	83%	81%	74%
Base n	1010	140	184	166	154	194	167	855	149

Question: NDC_TARGETS_SETTING: All of these are valid ways to meet our obligation under the Paris agreement. Using the slider below, how do you think New Zealand should set and achieve our second NDC?
*Respondents were presented with a scale where 'Domestic action only' was anchored at 0% and 'International cooperation only was anchored at 100%. Respondents did not see the percentage markings on the scale.
Blue / red highlights indicate the score being significantly lower / higher than all other groups

However, most prefer a focus on domestic action.

1 in 3 (35%) lean towards domestic action and over 2 in 5 (45%) prefer an even mix of domestic and international efforts. Those that are most favourable to a mix rather than a domestic leaning live in regional/ rural areas or are females 35+.

A smaller group (19%) supports leaning towards international cooperation. This is consistent across sub-groups.

Table 9: Preference for action taken – % who lean towards domestic action versus to international cooperation

	Total	Male 18 - 34 years	Male 35 - 54 years	Male 55+ years	Female 18 - 34 years	Female 35 - 54 years	Female 55+ years	Urban residents	Regional/ rural residents
Lean strongly towards more domestic action (0%-20% scale)	18%	17%	19%	26%	14%	14%	16%	18%	14%
Lean towards more domestic action (21%-40% scale)	17%	20%	20%	16%	24%	16%	11%	19%	12%
An even mix of domestic and international cooperation (41%-60% scale)	45%	38%	37%	38%	45%	60%	52%	44%	55%
Lean towards more international cooperation (61%-80% scale)	11%	12%	12%	9%	16%	4%	13%	11%	10%
Lean strongly towards more international cooperation (81%-100% scale)	9%	14%	12%	10%	1%	6%	7%	9%	8%
Base n	1010	140	184	166	154	194	167	855	149

Question: NDC_TARGETS_SETTING: All of these are valid ways to meet our obligation under the Paris agreement. Using the slider below, how do you think New Zealand should set and achieve our second NDC?
Respondents were presented with a scale where 'Domestic action only' was anchored at 0% and 'International cooperation only was anchored at 100%. Respondents did not see the percentage markings on the scale.
Blue / red highlights indicate the score being significantly lower / higher than all other groups

Those who prefer a focus on international cooperation understood NZ's constraints.

Selected quotes from those who prefer a focus on international cooperation – reasons why:

- "New Zealand is already doing all it can sensibly do."
- "All domestic options are impractical for such a small country and will cause further economic problems for our main income options."
- "Because it is harder to achieve the target at a local level and farming is a key domestic producer."

Selected quotes from those who prefer a focus on domestic action – reasons why:

- "We are responsible for our own emissions so we should all agree to take the necessary steps to reduce those emissions."
- "We should not impose our responsibility to other countries."
- "Other international parties may have their own way and we have to rely on our own initiative to achieve this goal."

Doing our fair share, doing what is feasible, and the impact and cost to businesses and households are the top three factors New Zealanders think the Government should prioritise when setting NDC2.

These factors were the top 3 priorities across gender, age, and location (urban/ rural).

Table 11: Factors the New Zealand Government should prioritise when thinking about how to set NDC2

	Total	Male 18 - 34 years	Male 35 - 54 years	Male 55+ years	Female 18 - 34 years	Female 35 - 54 years	Female 55+ years	Urban residents	Regional / rural residents
New Zealand doing its fair share of the global effort. All countries, including New Zealand, need to do their fair share to meet the Paris temperature goal. The level of target that is 'fair' will be different for every country	48%	43%	46%	47%	47%	42%	59%	49%	46%
What is feasible based on New Zealand's natural resources, economic sectors, and level of development. For New Zealand, we might consider our status as a developed country, and our high proportions of agricultural emissions and renewable electricity	42%	47%	41%	45%	43%	39%	38%	43%	40%
The impact and cost to business and households. More action to reduce emissions could impact the competitiveness of New Zealand businesses and place unnecessary costs on households	31%	32%	31%	32%	37%	27%	27%	31%	32%
Meeting Paris Agreement temperature goals	23%	30%	29%	17%	23%	23%	19%	24%	20%
Countries need to set higher targets and take increased action to reduce their emissions because the first ever Global Stocktake of emissions under the Paris Agreement found the world is off track to meet its goals	22%	24%	24%	16%	22%	23%	21%	22%	19%
Setting the highest possible target for our NDC based on our national circumstances and capacity	20%	19%	21%	20%	12%	21%	26%	20%	20%
None of the above	10%	13%	10%	11%	10%	12%	8%	10%	9%
Base n	1010	140	184	166	154	194	167	855	149

Question: NDC_TARGETS_IMP_FACTORS: Overall, which factors, if any, do you think the New Zealand Government should prioritise when thinking about how to set our second NDC?
Blue / red highlights indicate the score being significantly lower / higher than all other groups