

**IN THE HIGH COURT OF NEW ZEALAND
WELLINGTON REGISTRY**

**I TE KŌTI MATUA O AOTEAROA
TE WHANGANUI-A-TARA ROHE**

**CIV 2021-485-341
[2022] NZHC 3064**

UNDER the Judicial Review Procedure Act 2016 and
Part 30 of the High Court Rules 2016

IN THE MATTER OF an application for judicial review

BETWEEN LAWYERS FOR CLIMATE ACTION NZ
INCORPORATED
Applicant

AND THE CLIMATE CHANGE COMMISSION
First Respondent

MINISTER FOR CLIMATE CHANGE
Second Respondent

Hearing: 28 February 2022 – 4 March 2022 (further submissions received
18, 19 and 22 August 2022)

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Judgment: 23 November 2022

JUDGMENT OF MALLON J

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Introduction

[1] In response to the climate change emergency, Parliament enacted legislation aimed at enabling Aotearoa New Zealand to develop and implement policies that would contribute to the global effort to limit the global average temperature increase to 1.5°C above pre-industrial levels and meet its international obligations.¹ Among other things, this legislation set greenhouse gas emissions targets for 2050 (the **2050 Target**), including that New Zealand’s net emissions of greenhouse gases, other than biogenic methane, would be zero by 2050.²

[2] It also established the Climate Change Commission (the **Commission**) to provide periodic independent advice to the Government and review the Government’s progress towards its emissions reduction and adaptation goals. This judicial review proceeding, which is brought by a not-for-profit special interest group (**LCANZ**), challenges the advice that the Commission has for the first time given under this legislation (the **Advice**).³

[3] One part of the Advice concerned whether an international commitment New Zealand had made in 2016 about the level by which it would reduce its greenhouse gas emissions by 2030 (the **2016 Nationally Determined Contribution** also referred to as the **2016 NDC**) was consistent with global efforts to limit global warming to 1.5°C above pre-industrial levels (the **global 1.5°C effort**). The Commission advised that the 2016 NDC was not consistent with the global 1.5°C effort. It also provided advice on the level of commitment that would be compatible with that effort (the **NDC Advice**).

[4] LCANZ challenges the NDC Advice as based on a logical or mathematical error. This alleged error concerns the way that the Commission compared the level of New Zealand’s international commitment (as set out in the 2016 NDC) with modelling

¹ Climate Change Response (Zero Carbon Act) Amendment Act 2019 [the Amendment Act].

² See [45] for the complete definition of the 2050 Target.

³ He Pou a Rangi | Climate Change Commission *Ināiā tonu nei: a low emissions future for Aotearoa* (31 May 2021) [Final Advice].

carried out by the Intergovernmental Panel on Climate Change (IPCC)⁴ in a 2018 report (the **2018 Special Report**).⁵

[5] That modelling was of different global pathways that would be consistent with limiting warming to within 1.5°C above pre-industrial levels. These pathways compared net emissions in the target year that would be consistent with the global 1.5°C effort with net emissions in the base year (a **net:net** measure) to derive a percentage reduction.⁶ The Commission applied this modelling to New Zealand's gross emissions in the base year (a **gross:net** measure) to derive a percentage reduction by the target year that would be consistent with the 1.5°C global effort.⁷ LCA NZ says it was an error to use the gross:net measure. It says it meant that the NDC Advice understated the level of reductions necessary to be consistent with the 1.5°C global effort and was unlawful, irrational and unreasonable.

[6] Another part of the Advice concerned budgets for New Zealand's emissions of all greenhouse gases for consecutive periods from 2022 onwards that the legislation required the Minister to set (the **Budgets Advice**).⁸ These budgets set the quantity of emissions permitted for specific periods, with a view to meeting the domestic 2050 Target and the global 1.5°C effort.⁹ LCA NZ contends that the Commission made errors in preparing the Budgets Advice.

[7] First, it says the Commission wrongly focussed on budgets that were consistent with the 2050 Target rather than also considering whether they were consistent with

⁴ The Intergovernmental Panel on Climate Change [IPCC] is the United Nations' body for assessing the science relating to climate change. Its objective is to provide governments at all levels with scientific information they can use to develop climate change policies. Its reports and guidance are the work of various scientists and teams of authors nominated by member governments from time to time. Its work is recognised as the most authoritative source of evidence on the science of climate change; provides guidance and information; and is policy-relevant, but not policy-prescriptive.

⁵ IPCC *Global Warming of 1.5°C. An IPCC Report on the impacts of global warming of 1.5°C above pre-industrial levels and related greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty* (Cambridge University Press, Cambridge, 2018) [2018 Special Report]. Also referred to as SR18 or SR1.5

⁶ See discussion at [82].

⁷ See discussion at [83].

⁸ Climate Change Response Act 2002 (as amended by the Amendment Act) [Climate Change Response Act], s 5X; and Part 1B sub-pts 2 and 3.

⁹ Section 4 (definition of "emissions budget"); and Part 1B, sub-pt 2, s 5W.

the global 1.5°C effort. In doing so, it says the Commission’s analysis repeated the logical error that it made in the NDC Advice. It submits that this led to the Commission failing to grapple with the extent of reductions in emissions that are necessary by 2030 to contribute to the global 1.5°C effort.

[8] Secondly, it says that the Commission wrongly grouped the mandatory statutory considerations and adopted “economically affordable” budgets rather than the statutory requirement to recommend budgets that are “ambitious but likely to be technically and economically achievable” and that would meet the statutory purpose of contributing to the global 1.5°C effort.¹⁰

[9] The next aspect of the Advice that is challenged concerns the accounting methodology it recommended for measuring progress towards meeting the emissions budgets and the 2050 Target. LCANZ contends that the legislation mandated a particular accounting method (**Greenhouse Gas Inventory accounting** also referred to as **GHGI** or **GHGI net**) whereas the Commission recommended a different method (**modified activity-based accounting** also referred to as **MAB**). It says the Commission erred in law in recommending MAB. It says the consequence of the error was that it risked portraying a false sense of ambition of the level of emissions reductions in the budgets than the emissions that the atmosphere would actually see during the budget periods.

[10] Lastly, LCANZ contends that the Budgets Advice was irrational, unreasonable and inconsistent with the legislative purpose of contributing to the global 1.5°C effort. It says the Commission’s recommended budgets will see emissions increasing over the next decade and are inconsistent with reductions the 2018 Special Report says are necessary between 2010 and 2030 for the global 1.5°C effort. It also says the Budgets Advice was inconsistent with the Commission’s analysis as to the NDC that what would be consistent with the global 1.5°C effort and New Zealand’s fair share of the global budget as a substantial past emitter and a developed country. Finally, it says that the Commission failed to address the relative costs, benefits and risks of further

¹⁰ Section 5ZC(2)(b)(iv).

domestic reductions as compared with the proposed purchase of offshore mitigation to meet New Zealand's NDC.

[11] For the reasons that follow, I have concluded that:

- (a) The Commission did not make a mathematical or logical error in its application of the IPCC modelling. It did not intend to make a direct mathematical comparison. The Commission intended to use the IPCC modelling only as an indirect comparator, incorporating value judgments about New Zealand's contribution to the global 1.5°C effort. While the Commission might have set out its approach more clearly, the Minister, to whom the NDC Advice was given, correctly understood the Commission's approach and that there were other ways to assess New Zealand's appropriate contribution.
- (b) The Commission did not misinterpret the statutory purpose, as it correctly understood that the emissions budgets should be set having regard to the mandatory relevant considerations and with both the 2050 Target *and* contributing to the global 1.5°C effort in mind. The Commission also correctly applied the mandatory relevant considerations and did not mischaracterise them.
- (c) The Commission did not err in law by recommending MAB as the accounting methodology for measuring progress towards meeting the emission budgets and the 2050 Target. The legislation empowered the Commission to give advice on the appropriate accounting methodology and did not mandate the use of GHGI for this purpose.
- (d) The Commission's Advice was not irrational or unreasonable. The value judgments on which the NDC Advice were based reflected New Zealand's particular circumstances as a developed country, but with significant commercial forestry with cyclical swings sequestering carbon from the atmosphere and then releasing it. The MAB methodology was intended to provide a clear signal and stable basis on

which to drive climate change action rather than relying on removals of carbon from existing forestry. The Commission's reasons and material on which it was based supported its choice of MAB. The Budgets Advice reflected the same reasoning and material.

LCANZ was correct that neither the NDC Advice nor the Budgets Advice put New Zealand on track to reduce domestic net emissions by 2030 as per the IPCC global pathways but the legislation did not require this in order to contribute to the global 1.5°C effort. There were a range of considerations the Commission was required to take into account. Amongst other things, the Commission concluded that there was the risk of severe social and economic impacts on New Zealand communities, people and businesses, with legacy impacts on other generations and Māori, by trying to make a contribution solely through domestic action at this early stage of New Zealand's transition to a low emissions economy. The Advice would put New Zealand on track to reach the net zero carbon target sooner than the 2050 Target. The Commission's reasoning and the material on which was based justified its Advice. No error in that reasoning or the material on which it was based has been shown.

The parties

The Commission

[12] The Commission is a specialist and independent body. It is chaired by Dr Roderick Carr. He has extensive experience in public sector governance and broad private sector experience. The Deputy Chair is Lisa Tumahai who has expertise and knowledge in te Tiriti o Waitangi and te Ao Māori. Four of the other commissioners have expertise in climate science, mitigation and adaptation. Three of those four have been authors of reports prepared by the IPCC. The remaining commissioner has held professional positions in the agricultural industry. The Commission's work is supported by an interdisciplinary team with expertise in climate change science and policy, and emissions reporting and accounting.

[13] The Advice runs to 418 pages. It is supplemented by further volumes of supporting evidence.¹¹ Its draft advice (the **Draft Advice**) was published on 1 February 2021. The Advice (that is, the advice in its final form) was published on 31 May 2021.¹² The Commission's process included extensive discussions and consultation with individuals, community groups, non-governmental organisations, businesses and industry groups, public agencies, local governments and others. It held meetings and online events, receiving more than 15,000 written submissions.

[14] The Commission's Advice was in three parts:

- (a) advice on the first three budgets for the three consecutive periods to 2035 (the Budgets Advice);
- (b) direction on the policies and strategies for the emission's reduction plan; and
- (c) advice on the NDC (the NDC Advice) and the eventual reduction in biogenic methane.

[15] Its advice on (a) and (c) is the subject of this judicial review.

The Minister

[16] The Minister has been a Member of Parliament since 2014. He has been the Minister of Climate Change since 2017. He requested the NDC Advice and the Budgets Advice. His receipt and response to the Advice has led to the communication of an amended NDC to the Secretariat of the United Nations Framework Convention on Climate Change (UNFCCC) and the publication of emissions budgets, as further discussed later in this judgment.¹³

¹¹ He Pou a Rangi | Climate Change Commission 2021 *Supporting Evidence Consultation Feedback and Evidence* (2021) [Supporting Evidence].

¹² Final Advice, above n 3.

¹³ See discussion from [87] and from [133].

LCANZ

[17] LCANZ is a non-profit group of over 350 lawyers who advocate for legislation and policies to ensure New Zealand meets its commitments under the Paris Agreement in the public interest. It considers the Budgets recommended by the Commission and the NDC Advice lack ambition commensurate with the urgent action required to limit global warming to 1.5°C.

Context, and international and domestic framework

Context

[18] It is unequivocal that human influence has warmed the atmosphere and the land. Widespread and rapid changes in the atmosphere, ocean and biosphere have occurred. Global warming of 1.5°C and 2°C will be exceeded during the 21st century unless deep reductions in CO₂ and other greenhouse gas emissions occur in the coming decades.¹⁴

[19] The global harm is significantly greater if average temperatures increase by 2°C or higher than if temperature increases are kept to 1.5°C.¹⁵ Such harm includes many more millions of people exposed to extreme and exceptional heatwaves, more severe impacts on biodiversity, sea level rise and greater impacts on food security, water supply, human security and economic growth.¹⁶ The group of small island developing states, which includes the New Zealand dependency of Tokelau and our associated states of Niue and the Cook Islands, are particularly vulnerable to cyclones, storms and sea level rise. These will increase as global warming increases, and will be significantly worse at 2°C than 1.5°C.¹⁷

[20] On 2 December 2020, Parliament passed a motion declaring a climate emergency. Among other things, Parliament referred to the findings of the 2018

¹⁴ IPCC *Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press, Cambridge, 2022) [IPCC Sixth Assessment Report (AR6)]; referred to in affidavit of Professor Ralph Sims at [11].

¹⁵ Accepted by the parties in the pleadings.

¹⁶ Amended statement of claim at 12; and affidavit of Professor Sims at [13].

¹⁷ Affidavit of Professor Sims at [39].

Special Report, noted that global emissions needed to fall by around 45 per cent from 2010 levels by 2030 and reach net zero by around 2050 to avoid more than a 1.5°C rise in global warming, and that New Zealand has committed to taking urgent action on greenhouse gas mitigation and climate change adaptation.

International instruments

a) UNFCCC

[21] The United Nations Framework Convention on Climate Change (UNFCCC) is the foundation global treaty concerning climate change.¹⁸ Article 2 provides that the ultimate objective of the UNFCCC is as follows:

The ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.

[22] The UNFCCC does not impose specific emissions reduction targets on the parties. The responsibilities imposed on states under the UNFCCC depend on whether the state is a developed country, a developed country with specific financial responsibilities, or a developing country.

[23] Article 3 sets out principles that guide the parties' actions to achieve this objective. These include the principle that developed countries (referred to as Annex I countries), which include New Zealand, should protect the climate system "on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities" and to take "the lead" in combating climate change.¹⁹ They also include that a state's policies and measures should be comprehensive, cover

¹⁸ United Nations Framework Convention on Climate Change 2203 UNTS 162 (opened for signature 16 March 1998, entered into force 16 February 2005) [UNFCCC]. As at 2020, 197 states had become parties to the UNFCCC. It was signed by New Zealand on 4 June 1992 and ratified on 16 September 1993.

¹⁹ Article 3(1)(a) and Annex 1.

all relevant sources, sinks and reservoirs of greenhouse gases and adaptation, and comprise all economic sectors.²⁰

[24] Article 4 sets out the commitments made by the parties. These include that developed countries (which include New Zealand) are to adopt national policies and measures on mitigating climate change that demonstrate they are “taking the lead” and taking into account their differences in “starting points and approaches, economic structures and resource bases, the need to maintain strong and sustainable growth, available technologies and other individual circumstances.”²¹ They are to periodically report on their policies and measures.²²

[25] The UNFCCC establishes the Conference of the Parties.²³ The Conference of the Parties keeps the implementation of the UNFCCC under regular review. This includes:

- (a) promoting and guiding the development and refinement of methodologies for preparing inventories of greenhouse gas emissions by sources and removals by sinks; and
- (b) evaluating the effectiveness of measures to limit the emissions and enhance the removals of these gases.²⁴

[26] New Zealand, as an Annex 1 country, must keep an inventory and periodically provide its **national inventory report** in accordance with these methodologies.²⁵ The national inventory reports attempt to cover all emissions and removals from all land-use categories regardless of what causes them. For this reason, they are often described as reflecting “what the atmosphere sees”.²⁶

²⁰ Article 3(3).

²¹ Article 4(2)(a) and Annex 1.

²² Article 4(2)(b).

²³ Article 7(1).

²⁴ Article 7(2)(d).

²⁵ The Climate Change Response Act refers to this as the Greenhouse Gas Inventory. LCA NZ refers to the accounting for national inventory reports as **GHGI accounting** or **GHGI net**. This is discussed in more detail later.

²⁶ They are not fully comprehensive. Better methods of estimating emissions have become available, some estimates for some categories can be highly uncertain, states have some discretion about what part of their emissions they report on and there are some natural sources of emissions (such as volcanoes) that are not included in these reports.

b) *Kyoto Protocol*

[27] The Kyoto Protocol to the UNFCCC, which came into force in 2005, was intended to strengthen the commitments of developed countries to reducing greenhouse gases.²⁷ Under this protocol, for the first time countries agreed to take on individual binding emissions reductions targets and associated emissions target accounting obligations. Annex 1 countries, including New Zealand, were to reduce emissions by specific percentages compared to 1990 levels over the five-year period from 2008 to 2012 (referred to as the first commitment period).²⁸

[28] With binding targets came prescriptive accounting rules that the Parties agreed would govern how their individual targets were set and how progress against them would be measured.²⁹ These accounting rules are referred to as **target accounting** or **Kyoto accounting** rules. The rules countries were required to apply depended on whether a country's land use, land-use change and forestry activities (LULUCF), in effect their forestry activities, were a net source of emissions in 1990 (the **base year** for Kyoto accounting).

[29] Countries for whom forestry was a net *source* of emissions in 1990 had to include those emissions in calculating their base year emissions. Progress against their target reduction in emissions for the commitment period was measured against this. This is referred to as net:net accounting as both the base and target year calculate all emissions, less any removals.

[30] Countries for whom forestry was a net *sink* of emissions in 1990 did not count these removals in calculating their base year emissions. Progress against their target reduction in emissions for the commitment period (which counted net emissions, that

²⁷ Kyoto Protocol to the United Nations Framework Convention on Climate Change 2303 UNTS 162 (opened for signature 16 March 1998, entered into force 16 February 2003) [Kyoto Protocol]. The Kyoto Protocol was ratified by 192 of the parties to the UNFCCC. New Zealand signed the Kyoto Protocol in 1998 and ratified it in 2002.

²⁸ Article 3(1). In December 2012, some of the parties to the Kyoto Protocol (who made up less than 11 per cent of global emissions) adopted the Doha Amendment. This added a second commitment period, being 2013 to 2020, to reduce emissions 18 per cent below 1990 levels by 2020. While New Zealand did not adopt the Doha Amendment, it did adopt an emissions reduction target for this period under the UNFCCC.

²⁹ Articles 5 (requiring a GHGI), 7 (requiring submission of the GHGI) and 8 (requiring reviews of reports).

is all emissions less any removals) was measured against this gross base year calculation. This is referred to as gross:net accounting.

[31] The reason for the difference was to avoid rewarding or penalising countries for their past actions. Countries such as New Zealand, that had planted a lot of commercial forests prior to 1990, would have to continually plant more forests just to maintain the same level of emissions compared to the base year, if removals from the pre-1990 planted forests were counted in the base year. A gross:net approach was considered appropriate for such countries. In contrast, countries such as Australia with substantial deforestation emissions in 1990, received the credit of declining emissions when deforestation subsequently reduced under a net:net approach.

[32] The Kyoto Protocol did not require developing countries to set binding targets despite being major emitters of greenhouse gases. Not all developed countries chose to participate in the Kyoto Protocol framework. Because it prioritised the imposition of stringent and binding targets over ensuring collective participation and action in response to climate change, the protocol gradually attracted less political support.

c) Paris Agreement

[33] The Paris Agreement is a global agreement that came into force on 4 November 2016.³⁰ It aims to “strengthen the global response to the threat of climate change”³¹ by:³²

Holding 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 above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change ...

[34] Unlike the Kyoto Protocol, the Paris Agreement does not set binding targets for individual countries. Instead, countries communicate a Nationally Determined Contribution (**NDC**) to the global response to climate change.³³ These are to be

³⁰ Paris Agreement (opened for signature 22 April 2016, entered into force 4 November 2016) [Paris Agreement]. It was adopted by 196 parties to the UNFCCC. New Zealand signed and ratified the Paris Agreement in 2016.

³¹ Article 2(1).

³² Article 2(1)(a).

³³ Articles 3 and Article 4(2).

“ambitious” and parties are to “aim to reach global peaking of greenhouse emissions as soon as possible” and “to undertake rapid reductions thereafter”.³⁴ The NDCs are to be communicated every five years.³⁵ Each successive NDC is to be a progression and reflect its “highest possible ambition ... in the light of different national circumstances”.³⁶

[35] Developed countries, such as New Zealand, are to continue “taking the lead by undertaking economy-wide absolute emission reduction targets”.³⁷ A country may adjust its existing NDC with a view to enhancing its level of ambition.³⁸ Countries may pursue cooperative measures (that is, transferring climate mitigation from one country to another) to allow for higher ambition.³⁹

[36] In contrast with the Kyoto Protocol, the Paris Agreement does not prescribe any particular accounting method that NDCs must adhere to. It does contain a set of reporting requirements that aim to promote transparency around countries’ emissions and their actions to achieve their NDCs. This includes each party regularly providing its national inventory report of emissions by sources and removals by sinks of greenhouse gases prepared using “good practice methodologies” accepted by the IPCC and agreed upon by the Conference of the Parties.⁴⁰

Domestic legislation

[37] The Climate Change Response Act 2002 (the **Climate Change Response Act**) was introduced with the original purpose of enabling New Zealand to meet its international reporting obligations under the UNFCCC and the Kyoto Protocol by establishing a national inventory agency to record and report greenhouse gas emissions. In 2008, New Zealand introduced the NZ Emissions Trading Scheme (ETS), its first substantive climate action policy.

³⁴ Articles 3 and 4(1).

³⁵ Article 4(9).

³⁶ Article 4(3).

³⁷ Article 4(4).

³⁸ Article 4(11).

³⁹ Article 6(1). Article 6(2) provides that parties are to use “robust accounting” to ensure there is not double counting amongst other things. Rules for implementing art 6, including reporting requirements, have now been agreed at Glasgow COP 26.

⁴⁰ Article 13(7).

[38] The Climate Change Response (Zero Carbon Act) Amendment Act 2019 (the **Amendment Act**) was passed in November 2019 with cross-party support. The regulatory impact statement for the Bill introducing the Act said that it reflected a strong shift in the world’s understanding of and commitment to the necessary global climate change response. It also said that modelling indicates the Bill’s economic impacts will be a significant challenge compared with the “do-nothing” baseline and status quo.

[39] The Amendment Act amended the purpose of the Climate Change Response Act by adding a new purpose that specifically referred to contributing to the global 1.5°C effort.⁴¹ It also: set the 2050 Target;⁴² introduced requirements to set budgets for domestic emissions of all greenhouse gases across each budget period (the **Budgets**);⁴³ and established the Commission to provide advice to the Minister and to monitor and report on progress towards meeting the Budgets and 2050 Target.⁴⁴

a) Purpose

[40] The purpose of the Climate Change Response Act is now as follows:⁴⁵

3 Purpose

(1) The purpose of this Act is to—

- (aa) provide a framework by which New Zealand can develop and implement clear and stable climate change policies that—
 - (i) contribute to the global effort under the Paris Agreement to limit the global average temperature increase to 1.5° Celsius above pre-industrial levels; and
 - (ii) allow New Zealand to prepare for, and adapt to, the effects of climate change:
- (a) enable New Zealand to meet its international obligations under the Convention, the Protocol, and the Paris Agreement, including (but not limited to)—

⁴¹ Amendment Act, s 4, inserting s 3(1)(aa).

⁴² Section 8, inserting s 5Q. This is set out at [45].

⁴³ Section 8, inserting s 5X; and Part 1B, sub-pts 2 and 3.

⁴⁴ Section 8, inserting Part 1A; and Part 1B, sub-pt 3, s 5ZJ. This includes monitoring and reporting on progress towards the biomethane targets.

⁴⁵ Climate Change Response Act, s 3.

- (i) its obligation under Article 3.1 of the Protocol to retire Kyoto units equal to the number of tonnes of carbon dioxide equivalent of human-induced greenhouse gases emitted from the sources listed in Annex A of the Protocol in New Zealand in the first commitment period starting on 1 January 2008 and ending on 31 December 2012; and
 - (ii) its obligation to report to the Conference of the Parties via the Secretariat under Article 12 of the Convention, Article 7 of the Protocol, and Article 13 of the Paris Agreement:
- (b) provide for the implementation, operation, and administration of a greenhouse gas emissions trading scheme in New Zealand that supports and encourages global efforts to reduce the emission of greenhouse gases by—
- (i) assisting New Zealand to meet its international obligations under the Convention, the Protocol, and the Paris Agreement; and
 - (ii) assisting New Zealand to meet its 2050 target and emissions budgets:
- (c) provide for the imposition, operation, and administration of a levy on specified synthetic greenhouse gases contained in motor vehicles and also another levy on other goods to support and encourage global efforts to reduce the emission of those gases by—
- (i) assisting New Zealand to meet its international obligations under the Convention, the Protocol, and the Paris Agreement; and
 - (ii) assisting New Zealand to meet its 2050 target and emissions budgets.
- (2) A person who exercises a power or discretion, or carries out a duty, under this Act must exercise that power or discretion, or carry out that duty, in a manner that is consistent with the purpose of this Act.

b) The Commission

[41] Part 1A of the Climate Change Response Act, as introduced by the Amendment Act, established the Commission.⁴⁶ Its purposes are:⁴⁷

- (a) to provide independent, expert advice to the Government on mitigating climate change (including through reducing emissions of greenhouse gases) and adapting to the effects of climate change; and

⁴⁶ Section 5A.

⁴⁷ Section 5B.

- (b) to monitor and review the Government's progress towards its emissions reduction and adaptation goals.

[42] The Commission's functions include:⁴⁸

...

- (b) to provide advice to the Minister to enable the preparation of emissions budgets (*see* section 5ZA):

- (c) to recommend any necessary amendments to emissions budgets (*see* section 5ZE):

...

- (f) to monitor and report on progress towards meeting emissions budgets and the 2050 target (*see* sections 5ZJ to 5ZL):

...

- (i) to provide other reports requested by the Minister (*see* section 5K).

[43] Section 5K provides that the Minister may at any time request that the Commission prepare reports for the Minister on matters relating to reducing emissions and adapting to climate change effects. The Commission's advice on New Zealand's NDC was requested under this provision. When such a request is made, terms of reference are settled with the Commission and are made publicly available.⁴⁹ The advice or a report from the Commission to the Minister is presented to the House of Representatives and made publicly available.⁵⁰

[44] The Commission is required to act independently.⁵¹ There are a list of matters that the Commission must consider when carrying out its functions and duties.⁵² They include, for example, considering current available scientific knowledge; likely economic effects, the distribution of benefits, costs and risks between generations; and responses to climate change taken or planned by parties to the Paris Agreement.⁵³ The Commission is to provide for public participation where necessary, and is to make draft reports publicly available and invite public submissions.⁵⁴

⁴⁸ Section 5J.

⁴⁹ Section 5K(2) and (3).

⁵⁰ Section 5L.

⁵¹ Section 5O.

⁵² Section 5M.

⁵³ Section 5M(a), (c), (e) and (g).

⁵⁴ Section 5N.

c) The 2050 Target

[45] Part 1B of the Climate Change Response Act concerns emission reduction. Subpart 1 concerns the 2050 Target, requiring that:⁵⁵

- (a) net accounting emissions of greenhouse gases in a calendar year, other than biogenic methane, are zero by the calendar year beginning on 1 January 2050 and for each subsequent calendar year; and
- (b) emissions of biogenic methane in a calendar year—
 - (i) are 10% less than 2017 emissions by the calendar year beginning on 1 January 2030; and
 - (ii) are 24% to 47% less than 2017 emissions by the calendar year beginning on 1 January 2050 and for each subsequent calendar year.

[46] The Commission must review the 2050 Target when preparing budget advice for a budget period on or after 2036 and any other time the Minister requests a review.⁵⁶ On such a review, the Commission may recommend a change to the time frame for achieving the 2050 Target; the levels of emission reductions required; the gases, emissions and removals to which the 2050 Target applies; and how the 2050 Target may be met (including limits on removals and offshore mitigation).⁵⁷ The Minister must respond to any such recommendation.⁵⁸

d) Budgets

[47] Subpart 2 of Part 1B concerns the setting of emissions budgets. It has its own purpose which is as follows:

5W Purpose of this subpart

The purpose of this subpart and subparts 3 and 4 is to require the Minister to set a series of emissions budgets—

- (a) with a view to meeting the 2050 target and contributing to the global effort under the Paris Agreement to limit the global average temperature increase to 1.5° Celsius above pre-industrial levels; and

⁵⁵ Section 5Q.

⁵⁶ Section 5S(1).

⁵⁷ Section 5T. It may recommend a change only if a significant change has or is likely to occur that relates to specific climate change matters, for example a change in global action, scientific understanding, or New Zealand's economic or fiscal circumstances or its obligations under relevant international obligations.

⁵⁸ Section 5U.

- (b) in a way that allows those budgets to be met domestically; and
- (c) that provides greater predictability for all those affected, including households, businesses, and investors, by giving advance information on the emissions reductions and removals that will be required.

[48] The Minister must set emissions budgets across stipulated emission periods by specified dates.⁵⁹ For present purposes the relevant periods are 2022–2025, 2026–2030, and 2031–2035, which were required to be set and notified in the *Gazette* by 31 May 2022. An emission budget must state the total emissions for all greenhouse gases that will be permitted for the relevant period, expressed as “net quantity of carbon dioxide equivalent.”⁶⁰ Emissions budgets must be met as far as possible through domestic emissions reductions and removals but offshore mitigation may be used if there has been a change of circumstance affecting the basis of the budget or the ability to meet it domestically.⁶¹

[49] Subpart 3 of Part 1B concerns the Commission’s role in advising on emissions budgets. Section 5ZA sets out the matters on which the Commission must advise the Minister relevant to setting an emissions budget. They include the recommended quantity of emissions that will be permitted in each budget period and the rules for measuring progress towards the budgets and the 2050 Target.⁶²

[50] The Commission is required to make its proposed advice publicly available and allow adequate time and opportunity for any submissions to be received, heard and considered.⁶³

[51] The Minister is required to respond to the advice from the Commission and that response is to include a proposed emissions budget for the relevant period.⁶⁴ If the proposed emissions budget departs from the advice of the Commission, the

⁵⁹ Section 5X.

⁶⁰ Section 5Y.

⁶¹ Section 5Z.

⁶² Section 5ZA(1)(a) and (b).

⁶³ Section 5ZA(3). Section 5ZB(2) requires that the Minister also be satisfied that there has been adequate consultation.

⁶⁴ Section 5ZB(3).

Minister must explain the reasons for any departures in his response to the advice.⁶⁵ He must also consider whether it is necessary to carry out further consultation.⁶⁶

[52] The Commission in preparing its advice on emissions budgets, and the Minister in setting the budgets, must have regard to the matters set out in s 5ZC.⁶⁷ They are required to have “particular regard” to how the emission budget and 2050 Target may realistically be met including “the key opportunities for emissions reductions and removals in New Zealand”.⁶⁸ They are also to have “regard” to a range of matters including:⁶⁹

...

- (iv) the need for emissions budgets that are ambitious but likely to be technically and economically achievable:

...

- (x) responses to climate change taken or planned by parties to the Paris Agreement or to the Convention:

- (xi) New Zealand’s relevant obligations under international agreements.

[53] For each emissions budget period the Minister must prepare and make publicly available a plan setting out the policies and strategies for meeting the relevant emissions budget.⁷⁰ Section 5ZH requires the Commission to provide the Minister with advice on the direction of the policy required in the emissions reduction plan.⁷¹ The matters the Commission is required to have regard to in providing advice on the emission budgets also apply to advice on the emissions reduction plans.⁷²

[54] The Minister is required to notify the emissions budgets and the emissions reduction plans in the *Gazette*, present it to the House of Representatives and make it publicly available.⁷³ Before he does so, for the emissions budgets he must consult

⁶⁵ Section 5ZB(4)(b).

⁶⁶ Section 5ZB(4)(a).

⁶⁷ Section 5ZA(2).

⁶⁸ Section 5ZC(2)(a)(i).

⁶⁹ Section 5ZC(2)(b).

⁷⁰ Section 5ZG(1)(a).

⁷¹ Section 5ZH.

⁷² Section 5ZH(3).

⁷³ Section 5ZD(2) and 5ZI(2).

with the appropriate representative of each of the political parties represented in the House.⁷⁴

e) Monitoring

[55] Subpart 4 of Part 1B is concerned with monitoring. It requires the Commission to “regularly monitor and report on progress towards meeting an emissions budget and the 2050 target” in accordance with rules set out in s 5ZA(1)(b).⁷⁵ There is an annual monitoring process and an end of budget period process.⁷⁶

Preliminary issues

Court’s jurisdiction to review the Commission’s advice

[56] The Commission submits that the Advice is not reviewable, meaning that the Court does not have jurisdiction to do so. It says that the Advice is not the exercise of a “statutory power” within s 5 of the Judicial Review Procedure Act 2016 (the **JRP Act**) and nor is there a common law right of review. It says the content of the Advice has no effect on anything unless and until it is reflected in a decision made by the Minister. It would then be that Minister’s decision that was reviewable.

[57] The Minister does not take this point. His submissions note that the Advice is the first in a long line of advice the Commission will prepare for the Government. He accepts that “of course the Court has a supervisory role through the judicial review jurisdiction” but notes the limitations of that jurisdiction given that the issues are poly-centric, involve the weighing of competing interests, and the advice is by a specialist body acting within its sphere of expertise.

[58] LCANZ says this judicial review concerns whether the Commission, as a public body, has met its obligations under the Climate Change Response Act. It says the Advice has a significant influence on the Minister’s decision and there is a strong public interest in decision-making on climate change being subject to review.

⁷⁴ Section 5ZD(1).

⁷⁵ Section 5ZJ(1). The rules are part of the advice to the Minister on setting an emissions budget (s 5ZA(1)(b)).

⁷⁶ This is discussed in more detail under the second and third grounds of review.

[59] The JRP Act sets out the procedural provisions for the judicial review of the “exercise of a statutory power”.⁷⁷ Section 5(1) defines “statutory power” as:

a power or right to do anything that is specified in subsection (2) and that is conferred by or under ... any Act.

[60] The things specified in s 5(2) include “to exercise a statutory power of decision”⁷⁸ and “to make any investigation or inquiry into the rights, powers, privileges, immunities, duties, or liabilities of any person”.⁷⁹ A “statutory power of decision” is in turn defined as:⁸⁰

... a power or right conferred by or under an Act ... to make a decision deciding or prescribing or affecting ... the rights, powers, privileges, immunities, duties, or liabilities of any person ...

[61] The Commission contends that its Advice is not a “statutory power” of the kind specified in s 5(2). It submits that it exercises a quintessentially policy function, and the mere fact it does so through a body established by statute should not turn that policy function into something that is subject to the supervisory jurisdiction of the Court. It says it was established by statute to reflect its important, independent expert advisory function. Although its advice is provided under a statutory framework, it says that its advice is analogous to the advice that officials provide a Minister. It says the authorities are clear that such advice is not reviewable.

[62] There is a line of case law holding that mere expressions of opinion or the giving of advice are outside the ambit of the JRP Act. However, other case law suggests this distinction is breaking down and that the important point is whether the opinion or advice has important legal consequences.⁸¹ The Court’s judicial review jurisdiction is intended to be a broad one. As it was recently put in *Mercury NZ Limited v Waitangi Tribunal*:⁸²

[19] ... The judicial review jurisdiction of the Court is fundamental. ... It should not be restricted on the basis of a technical reading of that legislation

⁷⁷ Judicial Review Procedure Act 2016, s 3.

⁷⁸ Section 5(2)(b).

⁷⁹ Section 5(2)(e).

⁸⁰ Section 4 (definition of “statutory power of decision”).

⁸¹ See the discussion at Jason Bull (ed) *McGechan on Procedure* (online looseleaf ed, Thomson Reuters) at JR5.01(i).

⁸² *Mercury NZ Ltd v Waitangi Tribunal* [2021] NZHC 654, [2021] 2 NZLR 142.

to cover only certain kinds of decisions. It is for the Court itself to control the scope of the jurisdiction.

[20] The Court does so by exercising its discretion. At its heart judicial review is a discretionary remedy. There may well be good reason not to consider the potential grant of the remedy when there are further steps to be taken in relation to a proposed decision, such that it is in the interests of justice to await finalisation before a challenge is considered. ...

[63] The breadth of the jurisdiction was earlier discussed in *Wilson v White* as follows:⁸³

[21] ... The principle is that the Courts, in considering the amenability of administrative action to judicial review, are less concerned with the source of the power exercised by decision-makers (and in particular whether or not it was statutory) and now more ready than in the past to treat as reviewable the exercise of any power having public consequences. This is so even if the power is exercised by a private organisation. In all such cases the power must be exercised on public law principles. (*Electoral Commission* at 433; Phipps at 11).

[22] If the power in question comes within the broad definition of a statutory power under s 3 of the *Judicature Amendment Act 1972* the procedure for review will be the statutory one. The wide reach of this provision since enactment of the 1977 amendment to the 1972 Act is not always recognised. It was emphasised by the judgment of Cooke and Jeffries JJ in *Webster v Auckland Harbour Board* [1983] NZLR 641 at 651:

‘... Parliament underlined that the modern and flexible procedural provisions of the Act are intended to have a liberal scope. If the applicants are able to show that in making any decision under attack the Board violated the express or implied requirements of some statute (which requirements could include, for instance, relevant considerations or fairness) it is highly probable that they will also be able to show that the decision decided, prescribed or affected their rights or privileges. And if their case did reach that point, we think that it would be contrary to the intent of the Judicature Amendment Act to hold that it was not sufficiently a decision under a power conferred by any Act to enable the review procedure to be used.’

The Privy Council also attributed a broad meaning to ‘statutory power of decision’ in *Mercury Energy Ltd v Electricity Corporation of New Zealand* [1994] 2 NZLR 385, 388.

[64] I do not accept that the Commission’s function is analogous to that of official advice.⁸⁴ The Commission has been set up to be independent from the Minister. It is

⁸³ *Wilson v White* [2005] 1 NZLR 189, (2004) 17 PRNZ 270 (CA). See also *Ririnui v Landcorp Farming Ltd* [2016] NZSC 62, [2016] 1 NZLR 1056 at [1].

⁸⁴ In *Milroy v Attorney General* [2005] NZAR 362 (CA) at [11]–[12], the Court of Appeal held that judicial review was not available to consider the accuracy and completeness of the advice of officials in the course of the formulation of government policy when no rights were affected by it.

required by statute to take into account specified considerations, to make its draft advice available to invite submissions on draft advice, and its advice is presented to the House and made publicly available. The Minister is required by statute to respond to the Commission's advice and, if departing from it, explain his reasons for doing so.⁸⁵

[65] The Commission's advice is therefore public and has public consequences separate from the consequences of the Minister's ultimate decision. It is more similar to NIWA's publication of national climate data which was held to be reviewable in *New Zealand Climate Science Education Trust v National Institute of Water and Atmospheric Research Ltd.*⁸⁶ The Commission submits this was wrongly decided and contrary to the Supreme Court decision in *Ririnui v Landcorp Farming Limited.*⁸⁷ I do not agree. Both decisions are consistent with the modern approach that treats as reviewable the exercise of any public power having public consequences.⁸⁸

[66] The Commission's advice also has parallels with preliminary decisions which are reviewable, subject to the Court's discretionary assessment as to whether it is appropriate to intervene. The Court of Appeal in *Singh v Chief Executive of the Ministry of Business, Innovation and Employment* explained this as follows:⁸⁹

[38] In summary, without limiting the matters which may guide a court in cases such as this, the following considerations will be relevant:

- (a) The nature of the statutory power being exercised.
- (b) The stage that has been reached in the relevant statutory process.
- (c) The extent to which the statutory power exercised is likely to be influential in the ultimate decision.

⁸⁵ Refer to the discussion under the heading "Domestic legislation" as to the requirements on the Minister on receiving the Commission's advice.

⁸⁶ *New Zealand Climate Science Education Trust v National Institute of Water and Atmospheric Research* [2012] NZHC 2297, [2013] 1 NZLR 75 at [27].

⁸⁷ *Ririnui v Landcorp Farming Ltd*, above n 83, at [89] and [91]. The Commission also relied on *Ngāti Whatua Orakei Trust v Attorney-General* [2018] NZSC 84, [2019] 1 NZLR 116 but the discussion at [36]–[40] in that case is about the principle of non-interference with parliamentary proceedings and the Court reinstated the claim for declaratory relief.

⁸⁸ *Wilson v White*, above n 83, at [21].

⁸⁹ *Singh v Chief Executive of the Ministry of Business, Innovation and Employment* [2014] NZCA 220, [2014] 3 NZLR 23, applied in *Mercury NZ Ltd v Waitangi Tribunal*, above n 82, at [20]–[31].

- (d) Whether there are any further opportunities in the statutory process to correct any apparent error including the availability of a right to appeal or seek judicial review of a decision ultimately reached at the conclusion of the statutory process.

[39] Where matters have reached only a preliminary stage and the powers exercised to that point are unlikely to be influential in the final decision, the Court will not usually intervene by way of judicial review. There are sound policy reasons why that should be so. Where an investigation is merely at the information gathering stage, and the party under investigation has adequate opportunity to address issues raised for his or her response, it is most unlikely that the subject's rights will be adversely affected. Moreover, where there are adequate opportunities for appeal or review of any decision ultimately reached, it is not in the public interest that those responsible for conducting preliminary investigations should be put to the time and trouble of responding to applications for review. Similarly, the courts should not generally be troubled with judicial review applications in such circumstances.

[40] That said, we accept there may be cases where the Court's intervention by way of judicial review may be justified. Cases of this type are likely to be exceptional but where it is demonstrated that an error of law or process has occurred which is likely to have a material influence on the final decision, the Court may be prepared to intervene. The cases we have discussed are illustrative of situations falling into this category.

[67] The nature of the Commission's powers and the extent to which its Advice is likely to be influential in the ultimate decision are factors that point in favour of it being appropriate to intervene here. Although there was an opportunity for further input and advice from others before the Minister made his decision on the NDC Advice and emission budgets, and LCANZ informed the Minister of its view of the alleged logical error on which the NDC Advice was based, the Commission's Advice remains a key input into budgets and NDC decisions. The Minister's starting point is whether to accept the Advice and, if he does not, to say why he does not. Here, as is discussed further below, the Advice led to an increased NDC and was accepted with only minor adjustments in relation to the emissions budgets. Given that starting point, it is likely that, if the Advice had been different, the updated NDC and the budgets would have been different.

[68] I conclude that the Commission's Advice is the exercise of a reviewable statutory power. The likely influence the Advice will have in decisions made by the Minister, which are of great importance to New Zealanders, makes it appropriate for the Court to intervene if the Commission has not exercised that power in accordance with the Climate Change Response Act. That the Minister's decision could also or

instead be the subject of a judicial review, because it has been influenced by an error made by the Commission, does not preclude judicial review. However, it may be relevant to the issue of relief.

Deference and intensity of review

[69] As discussed in *Thomson v Minister of Climate Change*, decisions on climate change are justiciable but may require the Court to defer to the decision maker (in that case, the Minister) on constitutional and institutional grounds depending on the ground of review.⁹⁰ For example, where a ground of review requires the Court to weigh public policies that are more appropriately and better able to be weighed by those elected by the community, and there is no single right answer to how those policies should be weighed, the Court is not to substitute its view as to the outcome that best meets the statutory purpose.⁹¹

[70] The first three grounds of review are not of this kind. They allege a demonstrable logical error in the NDC Advice, a misapplication of the statutory purpose and criteria in the Budgets Advice, and a misinterpretation of statutory provisions relating to how progress against the emissions budgets and the 2050 Target are to be measured. To the extent LCANZ seeks to demonstrate the consequences of these alleged errors, I have considered this under the fourth ground of review. That ground alleges irrationality, unreasonableness and that the advice is inconsistent with the purpose of the Climate Change Response Act. This requires care about Court's proper role in, and ability to, weigh the poly-centric issues.

[71] It does not, however, follow that this means the standard of review is simply the traditional *Wednesbury* unreasonableness.⁹² That involves intervening only if the decision that was made was one that no reasonable decision maker, applying their mind to the question to be decided, could have arrived at it.⁹³ It equates with

⁹⁰ *Thomson v Minister of Climate Change Issues* [2017] NZHC 733, [2018] 2 NZLR 160 at [134].

⁹¹ See for example *Wellington City Council v Woolworths NZ Ltd No 2* [1996] 2 NZLR 537, [1996] NZAR 348 (CA) at 546; and *Thomson v Minister for Climate Change Issues*, above n 90, at [134].

⁹² *Associated Provincial Picture Houses v Wednesbury Corporation* [1947] All ER 680, [1948] KB 223.

⁹³ At 230.

senselessness or irrationality.⁹⁴ It is a test that incorporates deference to the decision maker but it was formulated in a different era of judicial review when, for example, reasons were rarely required of the decision maker.⁹⁵ Subsequently, New Zealand courts have accepted that the standard of unreasonableness (and degree of deference required) depends on the context.⁹⁶ That variability in standard is referred to as variability in the intensity of review applied.⁹⁷

[72] One of the contexts where New Zealand courts have been prepared to depart from *Wednesbury* unreasonableness is judicial review of decisions involving fundamental human rights.⁹⁸ The main debate has been around whether: the test in such a case should be one of unreasonableness, proportionality, or ensuring the decision maker has adequately justified the decision made; and the extent to which it should extend beyond decisions involving fundamental human rights.⁹⁹

[73] A relatively recent example of this approach in a case involving fundamental human rights is *Kim v Attorney-General*.¹⁰⁰ In that case, this Court considered the appropriate approach was to consider whether the challenged decisions were reached on sufficient evidence, were fully justified and were decisions open to a reasonable decision maker.¹⁰¹ This approach was considered appropriate by the Court of Appeal on appeal.¹⁰² While the Supreme Court did not endorse the approach on appeal, nor did it overrule it.¹⁰³

⁹⁴ Philip A Joseph *Joseph on Constitutional and Administrative Law* (5th ed, Thomson Reuters, Wellington, 2021) at [24.3].

⁹⁵ Michael Taggart “Proportionality, Deference, *Wednesbury*” [2008] NZLR 423 at 428–429.

⁹⁶ At 442.

⁹⁷ Paul Craig “Varying Intensity of Judicial Review: A Conceptual Analysis” (Public Law, July 2022) (forthcoming) at 8–10. Compare with *Students for Climate Solutions Inc v Minister of Energy and Resources* [2022] NZHC 2116 at [40]–[47].

⁹⁸ See the cases referred to in Dean Knight “A Murky Methodology: Standards of Review in Administrative Law” (2008) 6 NZJPI 117; Philip A Joseph *Constitutional and Administrative Law in New Zealand* (2nd ed, Thomson Brookers, Wellington, 2001) at 834–839; (3rd ed, Thomson Brookers, Wellington, 2007) at [21.11]; (5th ed, Thomson Reuters, Wellington, 2021) at [22.8.4]; and Taggart, above n 95, at 446, n 119. See also Harry Woolf and others (eds) *De Smith’s Judicial Review* (8th ed, Sweet & Maxwell, United Kingdom, 2018) at [11-140]–[11-141].

⁹⁹ Joseph, above n 94, at [22.8.4] and [22.8.5]; Taggart, above n 95, at 446–454 and 461–463; Craig, above n 97; and *De Smith’s Judicial Review*, above n 98, at [11-136]–[11-145].

¹⁰⁰ *Kim v Attorney General* [2017] NZHC 2109.

¹⁰¹ At [13] and [15].

¹⁰² *Kim v Attorney-General* [2019] NZCA 209 at [45]–[47].

¹⁰³ *Kim v Attorney-General* [2021] NZSC 57 at [50]–[51].

[74] Unless and until the Supreme Court says otherwise, the current position is that the intensity of review varies with the context. The present context concerns decisions that chart the course of New Zealand’s climate change response to what Parliament accepts is a climate emergency and which requires global effort to reduce the harm to the planet and its inhabitants. The significance of climate change decisions has led some courts to find that they engage the right to life.¹⁰⁴ While a recent decision of this Court has found that the right to life under s 8 of the New Zealand Bill of Rights Act 1990 is not engaged in the climate change context,¹⁰⁵ it is beyond dispute that the decisions that will affect New Zealand’s emissions pathway over this and the coming decade are of significant importance.¹⁰⁶

[75] In the modern context of “increasing expectations of fairness, rationality and justification in public affairs”¹⁰⁷ and the particular context here, I consider a more exacting standard than *Wednesbury* unreasonableness is appropriate.¹⁰⁸ While deference is also appropriate (on constitutional grounds) and necessary (for practical reasons of institutional context) given its poly-centric nature, the Court should not relinquish its role “to probe” the reasoning.¹⁰⁹

[76] In accordance with the approach in *Kim*, the more exacting standard involves examining whether the challenged decisions have been reached on sufficient evidence, have been fully justified and whether decisions were open to a reasonable decision maker in light of the legislative purpose while recognising that reasonable decisions makers could reach different decisions.¹¹⁰ In assessing this, the court must proceed

¹⁰⁴ *The State of the Netherlands v Stichting Urgenda* ECLI:EU:HR:2019:2007; and *Neubauer v Germany* FCC BVR 2656/18/1, BVR 78/20/1, BVR 96/20/1, BVR 288/2021, 24 March 2021. At the time of the hearing, other cases were before the Court: *Duarte Agostinho and Others v Portugal and Others* (communicated case) ECHR 39371/20 (filed 7 September 2020); *Do-Hyun Kim and Others v South Korea* SKCC (filed 13 March 2020); *La Rose and Others v Her Majesty the Queen* FCA (appealed 24 November 2020); and *Juliana v United States* 947 F3d 1159 (9th Cir 2020).

¹⁰⁵ *Smith v Attorney-General* [2022] NZHC 1693 at [193]–[194].

¹⁰⁶ Although in a different, less policy-content context, the importance of recourse to judicial review as providing the only effective check on the decision maker was referred to in *CP Group Ltd v Auckland Council* [2021] NZCA 587 at [136].

¹⁰⁷ *De Smith’s Judicial Review*, above n 98, at [1-003].

¹⁰⁸ I agree with *Hauraki Coromandel Climate Action Inc v Thames-Coromandel District Council* [2020] NZHC 3228 at [51].

¹⁰⁹ *De Smith’s Judicial Review*, above n 98, at [11-102].

¹¹⁰ *Kim v Attorney General*, above n 100, at [13] and [15]; and *Kim v Attorney-General*, above n 102, at [45]–[47].

with caution before intervening in decisions of a specialist expert body tasked with advising on policy issues under the broad legislative framework.¹¹¹

Evidence

[77] The parties filed extensive affidavit evidence. The Commission refers to the applicant's affidavits as comprising 253 pages of "so called 'expert' testimony", that is inadmissible "ex-post facto" evidence, challenging "a very wide range of aspects of the Commission's Advice, including its analytical processes and its substantive conclusions".¹¹² It has responded to that evidence with a similar volume of affidavit evidence of its own, but also says that much of this evidence would fall away if LCANZ's affidavit evidence is not admissible. Affidavit evidence has also been filed by and on behalf of the Minister, although neither party objects to this evidence.

[78] I do not address this submission in detail. Much of the applicant's evidence concerns an explanation of why it says that the Commission's NDC Advice involved a logical error. While it might be said that it was not necessary to have so many experts explaining the same point, the evidence is within the proper scope of judicial review evidence. It explains the technical difference between the IPCC global pathways and the approach taken by the Commission.

[79] The evidence that explains the difference between MAB and GHGI accounting, and that illustrates how they impact on our ambition and contribution to the global 1.5°C goal, is in a similar category. This evidence does not require that I rule on contested matters of science – the differences between MAB and GHGI are not in dispute. What is in dispute is whether the Climate Change Response Act required the use of GHGI and whether our budgets meet the statutory purpose and requirements if converted to a GHGI measure. The illustrations and calculations

¹¹¹ *NZ Climate Science v National Institute of Water and Atmospheric Research*, above n 86, at [41]; *NZ Climate Science v National Institute of Water and Atmospheric Research* [2013] NZCA 555 (dismissing appeal); and *Smith v Fonterra Co-operative Group Ltd* [2022] 2 NZLR 284, [2021] NZCA 552 at [26]: in the context of a tort proceeding, "[c]ourts do not have expertise to address the social, economic and distributional implications of different regulatory design choices. The court process does not provide all affected stakeholders with an opportunity to be heard, and have their views taken into account. Climate change provides a striking example of a polycentric issue that is not amenable to judicial resolution".

¹¹² The Commission's written submissions devote 16 pages to this topic and a lengthy table that includes the Commission's specific objections to that evidence.

described later in this judgment provide the relevant technical evidence to assist the Court to understand this.

[80] That said, it has not been necessary to refer to much of the detail of the affidavit evidence filed by the applicants or the Commission in this judgment. Where I have done so, I have considered the evidence to be admissible as within the expertise of the deponent and substantially helpful to the Court.¹¹³

First ground of review: error of logic

Introduction

[81] This ground of review concerns how the Commission measured whether the 2016 NDC was consistent with the 1.5°C global effort and the percentage by which emissions would need to reduce for an NDC that was consistent with this effort. Specifically, it concerns how the Commission applied global pathways that were consistent with the 1.5°C global effort, as modelled by the IPCC in the 2018 Special Report, to a domestic pathway that would be consistent with keeping global warming to 1.5°C.

[82] The 2018 Special Report found that reducing emissions to net zero by 2050 is not sufficient to limit warming to 1.5°C and deep emissions cuts must be made by 2030 for a 50–60 per cent chance of limiting warming to less than 1.5°C.¹¹⁴ The IPCC global pathways included calculations of the levels to which emissions would need to reduce by 2030 relative to 2010 levels. These calculations involved a net:net approach. That is, they compared *net* global emissions in 2010 with the level at which *net* global emissions in 2030 would need to reduce by to be consistent with limiting global warming to 1.5°C above pre-industrial levels.

[83] The Commission sought to convert and apply these IPCC calculations to New Zealand's emissions to provide the Minister with the advice he sought about our NDC. In doing so, it applied a gross:net approach. That is, it used New Zealand's *gross* emissions in 2010 (that is, our emissions without subtracting our removals,

¹¹³ Evidence Act 2006, s 25.

¹¹⁴ Affidavit of Professor Sims at [14].

rather than 2010 net emissions) in setting the percentage reductions that would be necessary by 2030 to be consistent with the IPCC's analysis.

[84] LCANZ submits this was a logical (or mathematical) error that renders this part of the NDC advice unlawful. It says a mathematically correct comparison must be done on a "like-for-like" basis.¹¹⁵ It submits that the effect of the logical error is to portray a false degree of ambition for New Zealand's 2030 target. This is because our gross 2010 emissions are much higher than our net 2010 emissions. This in turn means that the percentage reduction of emissions from gross 2010 levels to a net 2030 target is higher than the percentage reduction from net 2010 levels to that same net 2030 target.¹¹⁶

[85] The Commission submits it made no error. It says there is no ready-made methodology or guidance to assess whether New Zealand's NDC is consistent with the 1.5°C global effort. It says it was clear in its NDC Advice that the IPCC pathways could not be directly applied to set New Zealand's national targets and it did not do so. Rather, it was using the IPCC pathways as a modelling starting point to develop a series of indirect comparators to inform the Commission's Advice. Its approach reflected New Zealand's emission profile which differs greatly from the global emissions profile. Specifically, it reflected that the forestry sector in New Zealand has been a net sink for emissions whereas, globally, it is a net source of emissions.

[86] The Minister agrees with the Commission that there was no error. He understood that the Commission was not providing a scientifically based minimum percentage reduction to be consistent with the 1.5°C global effort. He knew it was underpinned by a value judgement. He was not operating under a mistake of fact about this. He received advice from officials about other approaches to that which the Commission adopted. His decision on New Zealand's updated NDC involved many

¹¹⁵ Reply affidavit of Dr Bertram, an economist who has filed affidavit evidence in support of the applicant, at [3]. Other experts for LCANZ made the same point.

¹¹⁶ As Professor Piers Forster puts it: "Using a gross:net approach to setting targets can portray a misleading level of ambition. This can be simply illustrated. If a country had gross CO₂ of 100 Mt CO₂ and net CO₂ of 70 Mt CO₂ in 2010 and set a target of reducing net CO₂ in 2030 to 30% below gross CO₂ in 2010, then it could achieve this apparent ambition but with no reduction to either gross or net CO₂".

considerations of which the Commission's NDC Advice was just one factor. He says the appropriate approach was one on which experts can reasonably disagree.

NDC Advice

[87] In New Zealand, the Minister exercises the prerogative to set and communicate the NDC. By convention, a decision of this nature is made with the agreement of Cabinet.¹¹⁷ New Zealand communicated its first NDC in October 2016.¹¹⁸ This provided that New Zealand committed to reduce net greenhouse gas emissions to 30 per cent below 2005 levels by 2030.¹¹⁹

[88] On 20 April 2020 the Minister asked the Commission, under s 5H of the Climate Change Response Act, for:

2a) a report on New Zealand's first Nationally Determined Contribution (NDC), including:

a. advice on whether the NDC is compatible with contributing to the global effort under the Paris Agreement to limit the global average temperature increase to 1.5° Celsius above pre-industrial levels; and

b. recommendations on any changes to the NDC required to ensure it is compatible with global efforts under the Paris Agreement to limit the global average temperature increase to 1.5° Celsius above pre-industrial levels.

[89] In response to this request, the Commission advised that New Zealand's 2016 NDC was not compatible with contributing to global efforts to limit global warming to 1.5°C above pre-industrial levels. It further advised that in order for the NDC to be compatible, the contribution New Zealand makes over the NDC period should reflect a reduction in net emissions of "much more than" 36 per cent below gross 2005 levels by 2030. It did not set a specific figure for how much the NDC should be strengthened because that was for Parliament. It did set out some factors for the Government to consider.¹²⁰

¹¹⁷ Joseph, above n 94, at [20.7.1].

¹¹⁸ *Submission under the Paris Agreement: New Zealand's Nationally Determined Contribution* (2016).

¹¹⁹ This applied Kyoto Protocol accounting which is a gross: net measure. Converted to net:net, it is a commitment to increase net emissions by no more than one per cent above 2005 levels by 2030.

¹²⁰ Final Advice, above n 3, at 36 and 349.

[90] Following receipt of the NDC Advice, the Minister received several briefings, attended a Ministerial working group and, with the assistance of officials, prepared a paper for Cabinet's agreement to update New Zealand's NDC. Cabinet met on 26 October 2021 and agreed an updated NDC. The Minister announced this with the Prime Minister on 31 October 2021 and the updated NDC was communicated to the UNFCCC Secretariat on 4 November 2021.¹²¹

[91] The updated NDC is for the period 2021–2030. As amended, it is to reduce net greenhouse gas emissions to 50 per cent below gross 2005 levels by 2030, also expressed as a 41 per cent reduction on 2005 levels using an emissions budget approach.¹²² It is an economy wide emissions reduction target. New Zealand will provide its first report on progress against its NDC by no later than 31 December 2024.

Commission's reasoning

[92] In giving the NDC Advice, the Commission explained why it had not recommended a specific figure for the NDC as follows:¹²³

This is a political and ethical issue, which will require elected representatives to make decisions on the importance of factors that contribute to the 1.5°C goal. Factors include the cost Aotearoa is willing to bear, social and economic impacts, international expectations and reputation, relative comfort with climate risk, and the balance of how much we do at home versus how much we do internationally.

[93] The Commission introduced its NDC Advice by explaining that:¹²⁴

- 5 There is no universally agreed upon approach to limit the global average temperature increase to 1.5°C above pre-industrial levels (the global 1.5°C effort).
- 6 Scientific modelling can help inform our understanding of the global emissions reductions that will be required to limit the global average temperature increase to 1.5°C above pre-industrial levels. The Intergovernmental Panel on Climate Change (IPCC) has assessed emission reduction pathways it considers would be consistent with a likely chance (50-66%) of limiting the increase on global average

¹²¹ *Submission under the Paris Agreement: New Zealand's First Nationally Determined Contribution Updated 4 November 2021* (4 November 2021).

¹²² On a "point year" basis the updated NDC is expressed as a reduction in net greenhouse gas emissions by 50 per cent below gross 2005 levels by 2030.

¹²³ Final Advice, above n 3, at 349.

¹²⁴ At 350.

temperature to within 1.5°C above pre-industrial levels (the IPCC 1.5°C pathways).

- 7 However, science alone cannot determine the share Aotearoa should contribute to those global reductions. Reaching a conclusion on this also depends on social and political judgements about international equity. These should be made by the Government of the day.

[94] The Advice went on to discuss the IPCC emission pathways. It set out the following table showing the global pathways that limit global warming to 1.5°C above pre-industrial levels:¹²⁵

	Percentage change relative to 2010		
	2030	2050	2100
Net carbon dioxide emissions	-40 to -58%	-94 to -107%	-121 to -136%
Agricultural methane emissions	-11 to -30%	-24 to -47%	-37 to -60%
Agricultural nitrous oxide emissions	+3 to -21%	+1 to -26%	-6 to -39%
Hydrofluorocarbon emissions	-65 to -77%	-78 to -90%	-67 to -83%
Perfluorocarbon emissions	-59 to -70%	-83 to -94%	-95 to -98%
Sulphur hexafluoride emissions	-49 to -67%	-74 to -80%	-84 to -96%

Source: IPCC, Special Report on 1.5°C, Summary for Policymakers, Table SPM.3b. Integrated Assessment Modelling Consortium data, hosted by IIASA

[95] The Advice explained that the Commission converted these global reductions for each of the individual greenhouse gases to reductions at the national level for New Zealand. It then aggregated the individual reductions for New Zealand by converting them to the Global Warming Potentials (GWP) metric to reach comparable figures in carbon dioxide equivalence (or CO₂e).¹²⁶ This approach produced an emissions profile of 527 Mt CO₂e (lower quartile) to 608 Mt CO₂e (upper quartile) over the 2021–2030 period. These were said to be the converted global pathways at the New Zealand national level. It then set out what the equivalent NDC for New Zealand would be when applying these profiles in the following table:¹²⁷

¹²⁵ At 353. This table excludes pathways with high “overshoot” (meaning that they allow global average temperatures to exceed 1.5°C before falling below that level later in the century). This table also provides the interquartile range only.

¹²⁶ It explains that under the Paris Agreement the emission reductions commitments are expressed using the Global Warming Potentials (GWP) metric to provide carbon dioxide equivalent (or CO₂e. (The abbreviation for carbon dioxide equivalence varies in the documents, submissions and affidavits. I have used the CO₂e abbreviation). It also explains that it used the GWP measure from the Fourth Assessment Report in describing the alternative NDCs based on the IPCC pathways [see 22.6.2 or 375].

¹²⁷ Final Advice, above n 3, at 355.

	Allowed emissions in NDC period (Mt CO ₂ e)	Equivalent 2030 target level (% reduction on 2005)
Upper quartile IPCC pathways (higher emissions)	608	27%
Midpoint reductions of interquartile range	568	36%
Lower quartile IPCC pathways (lower emissions)	527	45%

Note: We selected the midpoint of the interquartile range in order to facilitate the assessment of the Aotearoa NDC.

[96] The Advice went on to say that New Zealand’s 2016 NDC works out as an NDC budget of 596 Mt CO₂e. This was equivalent to the 67th percentile “putting it towards the higher end of allowed emissions that are compatible with limiting warming to 1.5°C, using this approach”.¹²⁸ It illustrates this with the following figure:¹²⁹



[97] The Advice discussed that because emissions in developing countries will peak later in recognition of their development needs, emissions in developed countries must peak and reduce more quickly than the global average. Recognising this, the Commission considered that New Zealand “should contribute more than the global average required” as it had agreed, as a developed country, to “take the lead”. It considered that the NDC “should reflect emissions much lower than just aligning with the ‘midpoint’ of the IPCC interquartile range”. This meant “emissions of much less than 568 Mt CO₂e over the 2021–2030 period, or reductions of much more than 36% below 2005 levels by 2030”. How much more was a “question for elected decision makers, given the social, political and ethical judgments involved”.¹³⁰

[98] It therefore advised that the 2016 NDC was not compatible with the 1.5°C global effort. It also provided the following recommendation:¹³¹

¹²⁸ At 355.

¹²⁹ At 357.

¹³⁰ At 357.

¹³¹ At 358.

1. We recommend that to make the NDC more likely to be compatible with contributing to global efforts under the Paris Agreement to limit warming to 1.5°C above pre-industrial levels, the contribution Aotearoa makes over the NDC period should reflect a reduction to net emissions of much more than 36% below 2005 gross levels by 2030, with the likelihood of compatibility increasing as the NDC is strengthened further.
2. How much the NDC is strengthened beyond 36% should reflect the tolerance for climate and reputational risk and economic impact, and principles for effort sharing, which require political decisions. Any changes to the NDC should be developed in partnership with Iwi/Māori, to give effect to the principles of Te Tiriti o Waitangi/The Treaty of Waitangi and align with the He Ara Waiora framework.

[99] In a later chapter of the Advice,¹³² the Commission repeated that setting the level of the NDC required a judgment about matters that were outside its remit.¹³³ It set out some principles and approaches about what a fair contribution to the 1.5°C global effort might look like for the Government to consider. It discussed that a NDC compatible with the 1.5°C global effort must make assumptions about how the NDC related to the efforts of other countries. The Commission referred to the three main principles from the IPCC Fifth Assessment Report of equality, responsibility, and capability/need.¹³⁴ It referred to the main approaches being “equal cumulative per capita emissions”¹³⁵ and “responsibility/capability/need”¹³⁶. In general, applying equity approaches implied that New Zealand should make “significantly deeper reductions than the global average”.¹³⁷ Emissions trajectories based on New Zealand’s relative wealth would lead to deeper reductions by 2030 than the IPCC 1.5°C pathway range. Emissions trajectories that account for historical responsibility followed a similar path towards net zero by the 2040s. The Commission said the Minister should be clear about any method it used to determine New Zealand’s fair contribution.¹³⁸

¹³² Chapter 22, Factors relevant to setting the level of the NDC.

¹³³ At 359. Referring to the potential social and economic impacts of extending the NDC, the expectations of other countries and their governments, tolerance for climate risks, and the relative importance of investing in greater levels of climate change action compared to other domestic or international policies.

¹³⁴ At 371.

¹³⁵ At 372. Emissions need to be reduced so that cumulative emissions, on a per capita basis, reach the same level.

¹³⁶ At 372. Countries with the most historical responsibility, and the highest capability to reduce emissions, and make deeper and faster emissions reductions.

¹³⁷ At 372.

¹³⁸ At 373.

The Commission's calculations

[100] Further information about how the Commission made its comparison calculations (of the IPCC global pathways and New Zealand's NDC) is provided in the supporting volumes to the Advice.

[101] In these volumes, the Commission explained the base year it used for the purpose of the comparison. It noted that the 2016 NDC is expressed as a 30 per cent reduction in emissions from 2005 levels. However, the IPCC global pathways are expressed as percentage reductions from 2010 levels. Therefore, the Commission used a 2010 base year to describe the NDC that would be compatible with the IPCC global pathways, and converted this percentage to a 2005 base year for easier comparison with the old NDC.¹³⁹

[102] The Commission went on to discuss that its base year for the comparator NDC excludes forestry. It explained this under the heading "gross-net accounting" as follows:¹⁴⁰

Consistent with the Kyoto Protocol-based target accounting approach, we have chosen to exclude forestry from the base year in developing the comparator NDCs (i.e., we have selected a gross-net accounting approach). The IPCC 1.5°C pathways adopt a net-net approach. Some submissions have pointed to this apparent inconsistency.

Under the agreed accounting rules for the Kyoto protocol, emissions and removals of carbon from land-use change and by forestry are excluded from the base year in calculating targets if the sector was a net sink of emissions in the base year – which it was in Aotearoa.

This is because carbon removals from new plantation forestry deliver a one-off removal from the atmosphere over the first decades of the life of the forest. After that time, the forest is neither a sink nor a source of emissions as carbon removals from growth are balanced by emissions at harvest. Including these emissions removals in the base year would mean an ongoing level of new forest planting would be required to maintain net emissions at a constant level. This does not accurately represent the level of effort in the base year and would not be sustainable indefinitely.

¹³⁹ Supporting Evidence, above n 11, at [13.2.3]. The old NDC used a 2005 base year.

¹⁴⁰ At [13.2.3]. Earlier in the supporting volumes the Commission had discussed why it considered gross:net accounting rather than net:net accounting for New Zealand's emissions reductions targets was appropriate. This discussed that net:net accounting was problematic for countries like New Zealand whose net emissions are strongly influenced by a large area of production forests with large fluctuations in forest emissions over time. It means that large changes in net emissions can give a distorted view of the underlying long-term changes in forestry emissions. This is discussed further under the third and fourth grounds of review.

At a global level however emissions from land-use change represent additional emissions every year through deforestation and need to be reduced in the same way gross emissions do.

The IPCC 1.5°C pathways use a net-net approach, because this is the most appropriate approach at the global level (because globally, the forestry sector is a net source of emissions). Aotearoa uses a gross-net approach, because our forestry sector has been a net sink of emissions. Both these approaches are consistent with the international accounting guidance and appropriate to the circumstances they are being applied to.

[103] It can be seen that:

- (a) The Commission selected a gross:net accounting approach in calculating the comparator NDC even though the IPCC global pathways used a net:net accounting approach.
- (b) The gross:net approach involved removing forestry from the base year (which in New Zealand was a sink for emissions) for the NDC comparator.
- (c) The Commission justified this on the basis that forestry for New Zealand has been a net sink of emissions whereas globally it is a net source of emissions.
- (d) It regarded its gross:net approach as consistent with Kyoto-based target accounting.
- (e) It regarded both its gross:net approach and the IPCC's net:net approach as consistent with international accounting guidance and appropriate to the circumstances they are being applied to.

[104] The Commission included tables which showed the gross calculation of 2010 (the base year) carbon dioxide emissions for the NDC comparator and the 2030 (the end point) net carbon dioxide emissions under the IPCC global pathways. This was as follows:¹⁴¹

¹⁴¹ At [13.2.3]. There is a similar table for the other gases (hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride) but for present purposes, it is the carbon dioxide emissions that are relevant.

	Start point		End point		
	1990 emissions (kt gas)	2020 target 5% reduction on 1990 (kt gas)	2010 emissions (kt gas)	IPCC 2030 lower quartile reductions (kt gas)	IPCC 2030 upper quartile reductions (kt gas)
Net carbon dioxide ⁶	25,649	24,367	35,031	21,019	14,713
Methane	1,312	1,246	1,381	1,229	967
Nitrous oxide	19.3	18.3	25.6	26.4	20.3

[105] Footnote 6 (referring to the “net carbon dioxide” heading in this table) said:

Reductions of net carbon dioxide emissions have here been applied to gross carbon dioxide levels consistent with target accounting. This accounting recognises that land sector emissions need to be reduced, but land sector removals do not need to continue indefinitely. This is discussed in the forest accounting section above, and in further detail in *Chapter 3: How to measure progress*.

[106] In other words, this was intended to explain that New Zealand’s net emissions of carbon dioxide in 2030 need to be between 21,019 and 14,713 kt CO₂ to be consistent with the IPCC global pathway; and (although in a column labelled “net carbon dioxide”) New Zealand’s gross emissions of carbon dioxide at 2010 were 35,031 kt CO₂. The percentage reduction from 2010 emissions levels for our NDC to be consistent with the IPCC global pathway in 2030 used this comparison.

The alleged logical error and its impact

[107] The alleged logical error is the IPCC global pathways work from a net base year but the NDC comparison uses a gross base year. For carbon dioxide, if (as LCANZ submits) the comparison should have been with 2010 net carbon dioxide emissions, then the 2030 range of 21,019 and 14,713 kt CO₂ would have been compared with 5,000 kt CO₂¹⁴² (New Zealand’s net carbon dioxide emissions in 2010) rather than 35,031 kt CO₂ (New Zealand’s gross carbon dioxide emissions in 2010). For all gases, LCANZ’s evidence is that New Zealand’s net emissions in 2010 were 48.6 Mt CO₂e. This contrasts with the Commission’s calculation that 2030 net emissions of 52.6 Mt CO₂e were consistent with the IPCC pathways. In other words,

¹⁴² The hearing bundle table reads as 5,047.92 (page 1711 of bundle).

LCANZ says that the Commission's 2030 range represented an *increase* (of 8 per cent) rather than a decrease from 2010 net emissions.¹⁴³

[108] The Commission disagrees with this analysis. This is because LCANZ's evidence for these calculations uses national inventory figures (also referred to as GHGI) for 2010 whereas the Commission has used MAB accounting. Using the MAB approach to calculate 2010 net emissions gives a figure of 64 Mt CO₂e (rather than 48.6 Mt CO₂e). It says that this means that 2030 net emissions of 52.6 Mt CO₂e represent a 11.4 Mt CO₂e *decrease* (rather than an increase) from 2010 net emissions.¹⁴⁴

[109] Whether MAB is an available accounting approach and what its impact is on our NDC contribution and emissions budgets is discussed later under the third and fourth grounds. It is sufficient for present purposes to understand that, because New Zealand's net emissions are lower than gross emissions in 2010 (because forestry was a sink at that time), a comparison between a 2030 net target and a 2010 gross level will produce a greater 2030 percentage reduction target than it would if the comparison was between that 2030 net target and the 2010 net level.

Assessment

[110] This ground of review as pleaded is that the Commission made an error of law or acted irrationally in giving its Advice. The latter seems the more appropriate ground. As it was put in *R (Law Society) v Lord Chancellor*:¹⁴⁵

The second aspect of irrationality/unreasonableness is concerned with the process by which the decision was reached. A decision may be challenged on the basis that there is a demonstrable flaw in the reasoning which led to it – for example, that significant reliance was placed on an irrelevant consideration, or that there was no evidence to support an important step in the reasoning, or that the reasoning involved a serious logical or methodological error.

¹⁴³ This is Dr William Taylor's evidence. The general objection to his evidence is that he does not have climate change accounting expertise. But the only real substantive challenge to his evidence is that he has used GHG inventory figures whereas the Commission uses MAB for forestry. This is the very point of Dr Taylor's evidence, however. That is, LCANZ say that target accounting (specifically a gross net approach) should not have been used for the NDC compatible.

¹⁴⁴ This is Dr Olia Glade's evidence.

¹⁴⁵ *R (Law Society) v Lord Chancellor* [2018] EWHC 2094, [2019] 1 WLR 1649 at [98]. See also the cases summarised in Matthew Smith *The New Zealand Judicial Review Handbook* (2nd ed, Thomson Reuters, Wellington, 2016) at [53.5.5].

[111] The Commission’s Advice was that “emissions of much less than 568 Mt CO₂ over the 2021–2030 period, or reductions of much more than 36% below 2005 levels by 2030” would be necessary for New Zealand’s NDC to be compatible 1.5°C global effort. The question is whether this conclusion was based on a serious logical or methodological error so that the Advice was irrational.

[112] There is no dispute that the Commission relied on the IPCC global pathways as the basis for its conclusion. There is also no dispute that the Commission did not apply the pathways in the same mathematical way those pathways had been constructed by the IPCC. It is clear that the Commission knew this. It was an issue raised in consultation on the Draft Advice. The Commission deliberately used gross rather than net emissions and explained in the supporting volumes to the Advice why it had done so. In the supporting volumes it also added footnote 6 to “net carbon dioxide” in its gross CO₂ emissions NDC comparator table to make this point (this footnote had not been included in the Draft Advice).¹⁴⁶

[113] The question then is not whether the Commission were labouring under some mistake about how the IPCC global pathways had been constructed. It is whether it is logical to adjust the calculations that those pathways would otherwise produce for New Zealand and to still claim that the calculations from these adjusted pathways represent a reduction in emissions consistent with the 1.5°C global effort.

[114] The Commission says it used the IPCC pathways as an indirect comparator taking into account New Zealand’s circumstances (rather than applying those pathways on their terms). As explained in the supporting volumes to the Advice, this was because of our forestry situation. As elucidated in the respondents’ affidavits¹⁴⁷ and submissions, the Commission says it was entitled to and did apply its judgement, that the Kyoto Protocol requires or justifies the Commission’s approach, and doing otherwise would penalise New Zealand for having planted trees to meet its past international commitments and would constitute an undue burden.

¹⁴⁶ Dr Ivo Bertram described the presentation in the Draft Advice as “obscure in the extreme” as the numbers shown were for “net carbon dioxide” with no explanation that the 2010 entry was in fact gross CO₂ emissions.

¹⁴⁷ For example, Matthew Smith [45]–[48] and [108]; Dr Olivia Glade [46]–[53]; Dr Andreas Reisinger at [28] and [67]; and Helen Plume at [25]–[30] and [73].

[115] I agree with LCANZ that the Commission’s presentation of its analysis had the potential to mislead. It purports to have used the IPCC pathways as providing a scientifically modelled starting point. It then says New Zealand should do more than this because it is a developed country (developing countries will do less than the global average). Developed countries are to “take the lead” (meaning a NDC that would “reflect deeper emissions than the global average necessary”). But the figure it uses for the global average has incorporated a value judgment about what New Zealand’s contribution should be in light of its forestry position in 2010, which means that our share of reductions will be less than the global average.

[116] This is the point that a number of LCANZ’s experts make. For example, Dr Joeri Rogelj, a coordinating lead author on this part of the 2018 Special Report,¹⁴⁸ says that using a gross carbon dioxide figure for the 2010 base year results in “the emissions reductions percentages being incomparable with the global average emissions reductions consistent with pathways limiting warming to 1.5°C from SR1.5”.¹⁴⁹ Put another way, because the global pathways are a net:net analysis “the global average emissions reductions need to be applied to 2010 net CO₂ for the totals to add up as SR1.5 has modelled.”¹⁵⁰

[117] LCANZ does not say that there is only one way in which New Zealand could determine its NDC. It does say that the existence of choices in how to determine an equitable contribution does not alter the fact that there is only one way to correctly apply the IPCC pathways to New Zealand’s emissions. The Commission’s choice of a gross:net approach was to avoid being penalised for the cycles of trees already

¹⁴⁸ Dr Joeri Rogelj is also a lead author for the IPCC’s AR6. The Commission accepts Dr Rogelj is a recognised expert in his field. It queried whether his expertise extended to a detailed understanding of climate change accounting targets. Dr Rogelj responded on this with his credentials in this area. I accept he is an expert in this facet of climate change as well.

¹⁴⁹ The Commission does not disagree with this. Rather it says the Commission was not asked to address what NDC would be compatible with a direct comparison with the IPCC modelling.

¹⁵⁰ I consider Dr Rogelj’s evidence is admissible. It elucidates on the alleged logical error in the Commission’s analysis in a way that is substantially helpful. It is not contradicted by the respondents’ evidence. Their evidence accepts that a direct comparison was not made. Dr Glade argued that because LULUCF is a source of emissions at a global level, this effectively meant that it was gross and was therefore a valid comparison. However Professor Forster, a Lead Author of the relevant chapter of the 2018 Special Report, says this is not correct. Dr Glade’s main but different point is that the global pathways were not designed to set national pathways. That point is correct but it does not directly respond to the mathematical or logical error raised by LCANZ if the global pathways are to be translated to a national pathway as a starting point.

planted.¹⁵¹ This is an argument of fairness. LCANZ submits that a transparent approach would have applied the IPCC pathways correctly and then adjusted for fairness in light of domestic circumstances.

[118] Professor Piers Forster summarises the argument for LCANZ on this issue as follows:¹⁵²

27. However, in its advice on whether New Zealand's NDC was compatible with the global effort to limit the average temperature increase to 1.5°C, the Commission clearly chose to set its minimum ambition recommendation based on the mid-range global interquartile reduction in IPCC SR1.5, based on net-net accounting.

28. This remains a good idea but it is my expert opinion that the Commission does not do this correctly. If it did this correctly, it would set a minimum level of CO₂ emission reductions in its gross-net framework that is significantly larger than 36%.

29. If the baseline ambition was based on net-net accounting it could still be reported within the gross-net framework preferred. These emission reductions would then provide a scientifically justifiable baseline to which national circumstances and global equity considerations could then be applied as considered appropriate.

[119] I therefore consider that the Commission's Advice was potentially misleading (particularly lay readers or anyone without the time to read the Advice in its full detail) to the extent that it could be interpreted as advice that reductions of 36 per cent below 2005 gross levels would be compatible with the IPCC 1.5°C global pathways and therefore the 1.5°C global effort. However, as that Advice has since been considered by the Minister, the real question now must be whether the Minister was misled by the Advice when considering New Zealand's revised NDC.

[120] The Minister's evidence is that he understood the issue that is raised by LCANZ because LCANZ raised it with him in letter dated 17 June 2021. He could see that the Commission was also aware of the issue in its Advice but had chosen to derive the 36 per cent starting point using a gross:net accounting approach. He also

¹⁵¹ But, as Professor Forster points out, by employing a gross emission baseline in 2010 to set emission targets, but using forestry sink estimates with a baseline of 1990 to meet those targets, the forest sink achieved over 1990 to 2010 is counted towards the 2010 to 2030 emission reduction target. Kyoto accounting makes an allowance for trees planted before 1990, not those between 1990 and 2010.

¹⁵² Professor Forster is an IPCC coordinating lead author on the Sixth Assessment Report and a lead author of the chapter in the 2018 Special Report that modelled the 1.5°C global pathways.

received a briefing paper on 10 June 2021 on the topic “Consistency of NDC1 with efforts to limit global warming to 1.5°C” (the **Consistency Advice**).

[121] The Consistency Advice squarely confronted the issue and explained it to the Minister. It stated that science alone could not define consistency with the 1.5°C goal. It said that the IPCC pathways set out what the world as a whole needed to do to meet the 1.5°C goal, but the question of what national level of emissions reduction was consistent with limiting warming to 1.5°C depended on the assumptions made about how mitigation efforts should be distributed between countries globally. It said that this allocation depended almost entirely on value judgements relating to equity. It explained the Commission’s approach as follows:

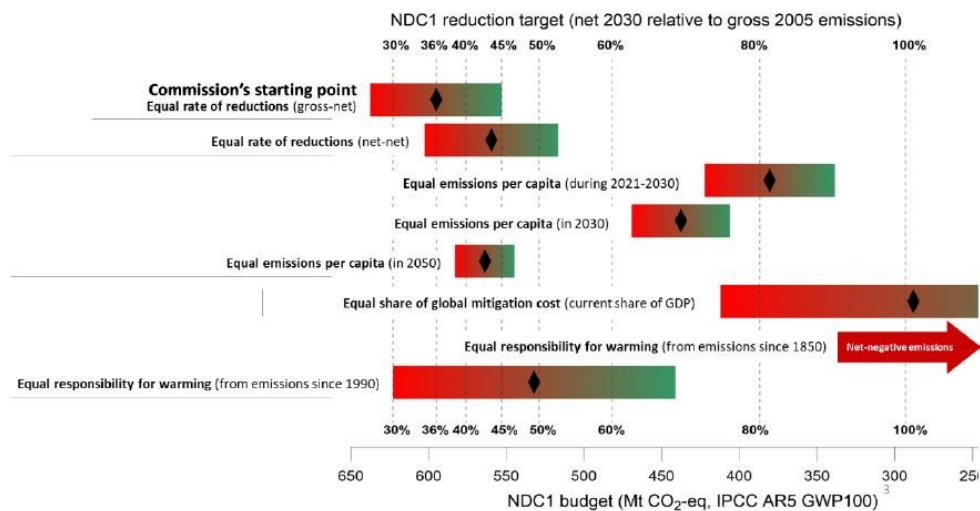
The Commission applied a gross-net approach in its quantitative analysis: it calculated the rate of reductions for carbon dioxide by comparing New Zealand’s net emissions in 2030 with gross emissions in 2010, and relating this to the rate of reductions of global net carbon dioxide emissions between 2010 and 2030 (which are on a net-net basis). The reason the Commission gives for this approach is that removals in New Zealand in 2010 due to past afforestation measures do not provide on-going removals, and hence on-going planting would be required merely to sustain that level of net emissions. Using net emissions in 2010 as reference point for the required reductions by the year 2030 would therefore constitute an undue burden.

The Commission’s approach embodies an additional value judgment about how past efforts should be treated when allocating future responsibilities among countries. An alternative approach would be to apply the global rate of net carbon dioxide emissions reductions to New Zealand’s net carbon dioxide emissions both in 2010 and 2030 ... Using this alternative method would result in a lower NDC1 budget consistent with 1.5°C (quantified below).

The Commission frames 36% as a ‘starting point’ to assess the compatibility with 1.5°C and suggests that other considerations should be overlaid on this. However, even the 36% starting point is not value-neutral but already contains strong value judgements about how the global effort should be distributed to reach this starting point. This paper therefore applies a range of other global equity principles to broaden the perspective on what NDC1 budgets might be considered consistent with 1.5°C.

[122] The Consistency Advice went on to provide an illustrative range of updated NDC budgets and 2030 reduction targets that would be consistent with different equity principles (that is, choices countries might make about how their fair contribution to the 1.5°C global effort should be assessed). This illustration, as also included in the

Cabinet paper on the updated NDC (and updated for technical matters), was as follows:



[123] In other words, it showed the reductions that would be consistent with the IPCC net:net approach (at least 44 per cent) in comparison with the gross:net approach (at least 36 per cent), and a range of other ways to assess the reductions that would be New Zealand's fair contribution consistent with 1.5°C global effort.

[124] The issue was also addressed in the Cabinet paper. This referred to the Minister's request for advice on whether the 2016 NDC was compatible with the 1.5°C global effort and summarised the Commission's advice on this as follows:

The Commission advised that the current NDC1 is not compatible.

In order to be more likely to be compatible, the NDC should reflect a reduction of net emissions of 'much more than 36 per cent below 2005 gross levels by 2030, with the likelihood of compatibility increasing as the NDC is strengthened further'.

The Commission reached its recommendation of much more than 36 per cent by assuming that New Zealand's emissions should reduce *by at least* at the same rate as global emissions of those gases in the average of pathways consistent with the global pathway to 1.5°C. (footnotes omitted)

[125] It can be seen that this repeats the potentially misleading impression that might be taken from the Commission's NDC Advice. That is, it suggests that the 36 per cent figure correlates to the average of the IPCC 1.5°C global pathways. In fact, the percentage does not, because it uses a gross base year rather than a net base year for the comparison. However, this potentially misleading impression is rectified in

Appendix 2 to the Cabinet paper. This discussed the choice of accounting methodology for expressing the NDC reductions target and monitoring it. It explained that the reductions target was expressed on a “gross-net basis” which meant that it committed New Zealand to reduce its net emissions in the target year relative to gross emissions in the reference year. It went on to explain (emphasis added):

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 that provided global pathways for reaching the 1.5°C 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.

If the Commission had used a net-net approach, this would have resulted in a different recommendation regarding the NDC emission target. 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 land use, land use change, and forestry 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 removals on forest land planted prior to 1990.

[126] Although this was about the methodology chosen to express and monitor the NDC, it made the point that it meant the emissions target or 36 per cent figure was not the same as the IPCC 1.5°C global pathway and that, if it was, the NDC emission target recommendation would have been different. It went on to explain:

Fundamentally, using a gross-net approach to compare New Zealand's rate of reduction with those in global emission pathways assessed by the IPCC is not a simple mathematical calculation, but requires New Zealand to exercise its judgment about the appropriate level of burden sharing between countries with different amounts and types of emissions and removals. Officials note that, as a result, the 36% median rate of reduction calculated by the Commission (as well as any greater reduction expressed as a gross-net target) necessarily includes some of the value judgments set out above.

[127] I conclude that this ground of review is not made out. The NDC Advice was deliberately not based on a precise comparison with the IPCC 1.5°C global pathways. It incorporated value judgments in making that comparison. While it might have been more transparent to carry out a strictly mathematical comparison and to then adjust for value judgments, the Commission did not make a serious logical error that led to an irrational recommendation. The Commission knew what it was doing and had reasons for its approach. It meant that its NDC Advice on consistency with the 1.5°C global

effort was not based entirely on a truly mathematical comparison with the IPCC 1.5°C global pathways. The NDC Advice could have presented this more clearly and, by not doing so, risked misleading some readers (especially lay readers or those with insufficient time to study the full detail of the Commission’s Advice) about this. However, it did not in fact mislead the Minister. The Minister’s decision on the updated NDC was not made on the mistaken assumption that it represented a level of ambition that was mathematically in line with an ambition greater than the average IPCC 1.5°C global pathways.

[128] I address later whether this led to an NDC that was irrational as lacking ambition and inconsistent with the 1.5°C global effort.

Second ground of review: misapplication of statutory purpose and criteria

Introduction

[129] This ground of review concerns the Commission’s Budgets Advice. The Minister was required to set emission budgets (that is, the quantity of permitted domestic emissions) for the periods 2022–2025, 2026–2030, and 2031–2035.¹⁵³ The Commission was required to provide advice on these budgets.¹⁵⁴

[130] LCANZ says that, in giving this advice, the Commission made the following errors:

- (a) It misinterpreted the statutory purpose. It wrongly treated its primary or only task as being to recommend budgets that were consistent with reaching the 2050 Target. It was required to but did not treat contributing to the 1.5°C global effort as a free-standing statutory purpose of the budgets.¹⁵⁵
- (b) It erred in its approach as to how the statutory purpose and the statutory mandatory considerations worked together. The purpose of

¹⁵³ Above at [39] and [47].

¹⁵⁴ Above at [49].

¹⁵⁵ Climate Change Response Act, s 5W.

contributing to the 1.5°C global effort creates a “bottom line”, meaning that the Commission must have regard to the mandatory considerations in a way that achieves this purpose.

- (c) It misapplied the mandatory considerations. It did so by deviating from the requirement to recommend budgets that are “ambitious but likely to be technically and economically achievable” and instead adopting its own construct by recommending budgets that have a low degree of risk and that are “economically affordable”.¹⁵⁶
- (d) LCANZ says these errors meant the Commission did not grapple with the extent of reductions in net emissions required before 2030 for New Zealand to contribute to the 1.5°C global effort.¹⁵⁷ It also says its assessment of the extent of emissions required was affected by the logical or mathematical error that is the subject of the first ground of review and the accounting error that is the subject of the third ground of review.

[131] The Commission submits that the 2050 Target and the contribution towards the global 1.5°C goal are not separate and standalone objectives. It says it correctly took the view that the 2050 Target and the purpose of contributing to the 1.5°C goal were broadly aligned and that, at a high level, meeting the former would give effect to the latter. It submits that there was no requirement that its domestic budgets be set by applying the IPCC 1.5°C global pathways and nor that the budgets align with the NDC. It also submits that the Commission took into account the statutory mandatory considerations and did not erroneously reframe them.

[132] The Minister submits the statute does not require the Commission to mechanically apply the IPCC pathways for every emissions budget. Rather, the legislation requires the Commission and Minister to consider the 1.5°C temperature

¹⁵⁶ Section 5ZC(2)(b)(iv).

¹⁵⁷ It also says the Climate Change Response Act must be interpreted consistently with the right to life affirmed under the New Zealand Bill of Rights Act 1990, s 6 and the principles of the Treaty of Waitangi and tikanga Māori. However, it does not suggest that this would lead to any different interpretation of the Act than would otherwise apply. It is therefore unnecessary to consider this submission further.

goal, which it clearly did. The Minister also says that LCANZ mischaracterises the Paris Agreement provisions as creating legal obligations, when they are political commitments. It is the NDC that is the mechanism for implementing obligations deriving from the Paris Agreement.

The Budgets Advice

[133] The Commission advised emissions budgets for the relevant periods as follows:¹⁵⁸

- (a) 2022–2025: CO₂e 72.4 Mt per year;
- (b) 2026–2030: CO₂e 62.4 Mt per year; and
- (c) 2031–2035: CO₂e 50.6 Mt per year.

[134] As explained in the executive summary of the Advice, “[e]ach budget would see progressively deeper emission reductions”. From a starting point of 2019 CO₂e 78 Mt, its modelling showed that these budgets would see long-lived greenhouse gas emissions reduced by 15 per cent by 2025, 38 per cent by 2030 and 63 per cent by 2035. And for all emissions, reduced by 12 per cent by 2025, 27 per cent by 2030 and 42 per cent by 2035. These are percentage reductions compared with 2019.¹⁵⁹

[135] The executive summary described the advice as presenting “ambitious, achievable and equitable paths that Aotearoa can take to meet these targets and contribute to global efforts to address climate change”. It described its conclusions as balancing the need to be ambitious with what the evidence shows is achievable now. It said this reflected the position that Aotearoa was in after years of delayed action,

¹⁵⁸ Final Advice, above n 3, at 74. These are units of Mt CO₂e based on the GWP₁₀₀ values from IPCC *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (2014) [Fifth Assessment Report (AR5)]. This is to be consistent with international obligations relating to inventory reporting.

¹⁵⁹ At 12. As modelled using GWP₁₀₀ metric values from IPCC *Climate Change 2007: Synthesis Report. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (2007) [Fourth Assessment Report (AR4)].

and the work the country must do to pass on a thriving, climate-resilient, low emissions country to the next generation.¹⁶⁰

[136] It said the budgets showed how New Zealand could meet its targets in a way that was focused on the long-term. This recognised that New Zealand needs to reach the 2050 Target and stay there. It said that because New Zealand’s emissions have been increasing, meeting the 2050 Target would be harder and, because of this, the Commission slightly increased the emissions budgets from the Draft Advice.¹⁶¹

[137] The executive summary referred to consultation feedback where submitters asked how it could be said that the draft emissions budgets aligned with contributing to the global effort to limit warming to 1.5°C while also stating that the 2016 NDC did not. The Commission’s response was that to achieve the NDC, New Zealand would need some offshore mitigation. This was to increase New Zealand’s contribution beyond what was possible at home.¹⁶²

[138] The Commission’s more detailed analysis is discussed below when assessing the parties’ submissions under this ground of review.

The Minister’s decision

[139] On 9 May 2022 the Minister published New Zealand’s first emissions budgets. Converted to “per year” figures for ease of comparison with the Commission’s advice, these were as follows:¹⁶³

- (a) 2022–2025: CO₂e 72.5 Mt per year;
- (b) 2026–2030: CO₂e 61 Mt per year; and
- (c) 2031–2035: CO₂e 48 Mt per year.

¹⁶⁰ At 10.

¹⁶¹ At 11.

¹⁶² At 17.

¹⁶³ The Gazette notice “Emissions Budgets for 2022 to 2025, 2026 to 2030 and 2031 to 2035” (16 March 2022) *New Zealand Gazette* 1816. For the first period, the budget is 290 Mt; for the second period the budget is 305 Mt; and for the third the budget is 240 Mt per year.

[140] When compared to the figures above,¹⁶⁴ it can be seen that the Government largely accepted the Commission’s recommended budgets. The reduced budgets for the second and third periods take into account new information relating to increased afforestation intentions that was not available to the Commission at the time it provided the Budgets Advice.

Statutory provisions

[141] As set out earlier, the Amendment Act introduced a new purpose to the Climate Change Response Act, to:¹⁶⁵

contribute to the global effort under the Paris Agreement to limit the global average temperature increase to 1.5° Celsius above pre-industrial levels.

[142] It also introduced a purpose section (s 5W) that applied to emissions budgets. This required the Minister to set a series of emissions budgets:¹⁶⁶

with a view to meeting the 2050 target and contributing to the global effort under the Paris Agreement to limit the global average temperature increase to 1.5° Celsius above pre-industrial levels

[143] The s 5W purpose also required that the Minister set these budgets “in a way that allows those budgets to be met domestically” and that would provide greater predictability for all those affected by them.

[144] The Commission’s role in advising on emissions budgets is set out in Subpart 3 of Part 1B. It begins with s 5ZA, which provides:

5ZA Commission to advise Minister

- (1) The Commission must advise the Minister on the following matters relevant to setting an emissions budget:
 - (a) the recommended quantity of emissions that will be permitted in each emissions budget period; and
 - (b) the rules that will apply to measure progress towards meeting emissions budgets and the 2050 target; and

¹⁶⁴ At [133].

¹⁶⁵ Climate Change Response Act, s 3(1)(aa)(i).

¹⁶⁶ Section 5W(a).

- (c) how the emissions budgets, and ultimately the 2050 target, may realistically be met, including by pricing and policy methods; and
- (d) the proportions of an emissions budget that will be met by domestic emissions reductions and domestic removals, and the amount by which emissions of each greenhouse gas should be reduced to meet the relevant emissions budget and the 2050 target; and
- (e) the appropriate limit on offshore mitigation that may be used to meet an emissions budget, and an explanation of the circumstances that justify the use of offshore mitigation (*see* section 5Z).

...

[145] Sections 57B relates to the Minister’s response to the Commission’s Advice on the emissions budgets.¹⁶⁷

[146] Section 5ZC sets out the mandatory considerations that apply to the Commission when advising on budgets and to the Minister when determining the budgets. Some of these considerations have been referred to earlier, but in full s 5ZC provides:

5ZC Matters relevant to advising on, and setting, emissions budgets

- (i) This section applies to—
 - (a) the Commission, when it is preparing advice for the Minister under section 5ZA:
 - (b) the Minister, when the Minister is determining an emissions budget.
- (2) The Commission and the Minister must—
 - (a) have particular regard to how the emissions budget and 2050 target may realistically be met, including consideration of—
 - (i) the key opportunities for emissions reductions and removals in New Zealand; and
 - (ii) the principal risks and uncertainties associated with emissions reductions and removals; and
 - (b) have regard to the following matters:

¹⁶⁷ See the heading “Budgets” under the heading “Domestic legislation” above.

- (i) the emission and removal of greenhouse gases projected for the emissions budget period:
- (ii) a broad range of domestic and international scientific advice:
- (iii) existing technology and anticipated technological developments, including the costs and benefits of early adoption of these in New Zealand:
- (iv) the need for emissions budgets that are ambitious but likely to be technically and economically achievable:
- (v) the results of public consultation on an emissions budget:
- (vi) the likely impact of actions taken to achieve an emissions budget and the 2050 target, including on the ability to adapt to climate change:
- (vii) the distribution of those impacts across the regions and communities of New Zealand, and from generation to generation:
- (viii) economic circumstances and the likely impact of the Minister's decision on taxation, public spending, and public borrowing:
- (ix) the implications, or potential implications, of land-use change for communities:
- (x) responses to climate change taken or planned by parties to the Paris Agreement or to the Convention:
- (xi) New Zealand's relevant obligations under international agreements.

[147] Other aspects of the Commission's role in relation to emission budgets are set out in the discussion on the third ground of review below.

Statutory interpretation: two purposes?

[148] The first issue is whether s 5W has two compatible but separate objectives: achieving the 2050 Target and the 1.5°C goal. LCANZ submits that this is the plain reading of s 5W and is supported by the legislative history. It refers to Minister Shaw's comments in introducing the Climate Change Response (Zero Carbon) Amendment Bill (the **Amendment Bill**) that "[a]s far as we're aware, we are the first country in the world to locate that commitment to hold global warming to no more than 1.5°C in

primary legislation”.¹⁶⁸ It refers to the departmental report on the Bill that recommended that the budgets should be explicitly aligned with the overall purpose so as to “ensure that the 1.5°C temperature goal remains an active consideration”.¹⁶⁹ It notes that the Minister’s report to Cabinet, following feedback from the Select Committee, adopted the departmental report’s recommendation to add an express reference to the 1.5°C purpose in relation to the budgets. At the second reading the Minister noted the amendment to make explicit reference to the 1.5°C goal in relation to the budgets, saying that it would:¹⁷⁰

... align emissions budgets with the overall purpose of the bill and reinforce the need for decision makers to consider the global response to climate change when determining the level of emissions budgets.

[149] The Commission says there is no disagreement that the legislative history shows that Parliament intended that the budgets and emissions reduction plans would support New Zealand’s contribution to the 1.5°C goal. However, it disagrees with the submission that Parliament intended for the 2050 Target and the 1.5°C goal to be separate, standalone goals. It says that Parliament set the 2050 Target as the means, or primary means, for implementing New Zealand’s contribution to the 1.5°C goal.

[150] The Commission refers to the explanatory note to the Bill when introduced. It referred to the latest science in the IPCC special report on the 1.5°C goal. It also noted that scenarios consistent with staying within the 1.5°C goal involved global emissions of carbon dioxide needing to reduce to net zero around 2050, and global emissions of agricultural methane needing to reduce by 24 to 47 per cent from 2010 by 2050. It refers to other statements in the House, the departmental disclosure statement and officials’ initial briefing to the Select Committee, all to the effect that the 2050 Target reflects the IPCC’s findings. It also refers to this material to show that Parliament intended the budgets to be stepping stones to meet the 2050 Target.

[151] I accept that the 2050 Target was seen as giving effect to the 1.5°C goal. However, the decision was made to add “and contributing to the global effort under

¹⁶⁸ (21 May 2019) 738 NZPD 11027.

¹⁶⁹ Ministry for the Environment *Departmental Report on the Climate Change Response (Zero Carbon) Amendment Bill* (September 2019) [Departmental Report] at 28.

¹⁷⁰ (5 November 2019) 724 NZPD 14719.

the Paris Agreement to limit the global average temperature increase to 1.5° Celsius above pre-industrial levels” as a specific purpose of emission budgets. While that might simply have been to underscore that this was the purpose of the 2050 Target, I consider it was intended to do more. That is, it was intended to ensure that the Commission and the Minister kept in mind that limiting global warming to 1.5°C was the ultimate goal. That is the Minister’s view and it is consistent with what he said at the second reading of the Amendment Bill.

[152] It is also consistent with the 2018 Special Report. It makes the point that cumulative emissions need to be kept within a budget and the timing of when that budget is reached matters:¹⁷¹

Cumulative CO₂ emissions are kept within a budget by reducing global annual CO₂ emissions to net zero. This assessment suggests a remaining budget of about 420 GtCO₂ for a two-thirds chance of limiting warming to 1.5°C, and of about 580 GtCO₂ for an even chance (medium confidence). ...

Staying within a remaining carbon budget of 580 GtCO₂ implies that CO₂ emissions reach carbon neutrality in about 30 years, reduced to 20 years for a 420 GtCO₂ remaining carbon budget (high confidence). The ±400 GtCO₂ geophysical uncertainty range surrounding a carbon budget translates into a variation of this timing of carbon neutrality of roughly ±15–20 years. If emissions do not start declining in the next decade, the point of carbon neutrality would need to be reached at least two decades earlier to remain within the same carbon budget. ...

[153] The Special Report discusses the importance of reductions in the next decade as follows:¹⁷²

Under emissions in line with current pledges under the Paris Agreement (known as Nationally Determined Contributions, or NDCs), global warming is expected to surpass 1.5°C above pre-industrial levels, even if these pledges are supplemented with very challenging increases in the scale and ambition of mitigation after 2030 (high confidence). This increased action would need to achieve net zero CO₂ emissions in less than 15 years. ...

Limiting warming to 1.5°C depends on greenhouse gas (GHG) emissions over the next decades, where lower GHG emissions in 2030 lead to a higher chance of keeping peak warming to 1.5°C (high confidence). Available pathways that aim for no or limited (less than 0.1°C) overshoot of 1.5°C keep GHG emissions in 2030 to 25–30 GtCO₂e yr⁻¹ in 2030 (interquartile range). This contrasts with median estimates for current unconditional NDCs of 52–58 GtCO₂e yr⁻¹ in 2030. Pathways that aim for limiting warming to 1.5°C by

¹⁷¹ 2018 Special Report, above n 5, at 33.

¹⁷² At 95.

2100 after a temporary temperature overshoot rely on large-scale deployment of carbon dioxide removal (CDR) measures, which are uncertain and entail clear risks. In model pathways with no or limited overshoot of 1.5°C, global net anthropogenic CO₂ emissions decline by about 45% from 2010 levels by 2030 (40–60% interquartile range), reaching net zero around 2050 (2045–2055 interquartile range).

[154] In short, reaching net zero by 2050 is one thing but the timing of reductions also matters. The dual purpose in s 5W recognises this.

Statutory interpretation: what does “contribute to” mean?

[155] LCANZ submits that, when preparing the budgets advice in light of the statutory purpose, the Commission should have considered what “contributing to the global effort under the Paris Agreement to limit the global average temperature increase to 1.5°C above pre-industrial levels” required, independent of the 2050 Target.¹⁷³ It submits that to “contribute to” a goal means to have a share in bringing it about, or to help it to happen.¹⁷⁴ It submits that New Zealand’s contribution should be determined in light of the UNFCCC and Paris Agreement, informed by the interpretation of these agreements in other jurisdictions, and in light of the climate emergency and the urgency of action required to address it.

[156] In support of this submission, LCANZ refers to *Neubauer et al v Germany*.¹⁷⁵ This case involved a challenge to provisions of Germany’s Federal Climate Change Act. The complainants primarily alleged that the state had not introduced a legal framework for swift reductions of emissions, especially CO₂, when swift action was necessary to limit global temperature to well below 2°C and preferably 1.5°C.¹⁷⁶ The challenge was successful to the extent that the Court concluded the legislation lacked provisions for updating target periods from 2031. The legislature was directed to enact provisions for this.¹⁷⁷

[157] As I understand it, LCANZ only relies on this case to illustrate that the Paris Agreement is relevant to obligations on individual states. The case does not assist

¹⁷³ Climate Change Response Act, s 5W(a).

¹⁷⁴ “Contribute to” Collins Online Dictionary <www.collinsdictionary.com>; and “Contribute to” Merriam Webster Online Dictionary <www.merriam-webster.com>.

¹⁷⁵ *Neubauer et al v Germany* Fed, above n 104.

¹⁷⁶ At [1].

¹⁷⁷ At [192].

here. New Zealand has legislation with a purpose of enabling it to meet its international obligations under the Convention, the Protocol, and the Paris Agreement. The legislation provides for budgets as stepping stones to the 2050 Target, the 2050 Target is regarded as being consistent with the 1.5°C goal, and the 2050 Target can be reviewed if there has been a significant change relating to climate change matters.¹⁷⁸ These include, for example, changes to scientific information or our international obligations. Additionally, the legislation provides for policies to be developed that contribute to the 1.5°C goal and for emissions budgets that are intended to contribute to this goal.

[158] LCANZ also refers to the Supreme Court of the Netherlands decision in *Urgenda*.¹⁷⁹ That Court held that climate change threatened human rights protected by the European Convention on Human Rights (**ECHR**) and this,¹⁸⁰ together with the UNFCCC, obliged the Netherlands to reduce emissions in proportion to its share of responsibility. As there was no binding international legal obligation to meet a certain contribution, the consensus of the international community could help determine whether the Netherlands had met its obligations under the ECHR.¹⁸¹ That consensus (at the relevant time) was that Annex 1 countries needed to reduce their emissions by 25 to 40 per cent by 2020. The Court concluded that the Dutch Government was under a duty to reduce emissions by at least 25 per cent by 2020.¹⁸²

[159] LCANZ submits that *Urgenda* shows that determining what contributing to the 1.5°C goal means is capable of an objective answer. There are scientific consensus benchmarks. It accepts that it is not as simple as applying the IPCC pathways directly to New Zealand. There are questions of national capability and responsibility and global equity to be considered. It says that the IPCC pathways provide the start point and then the Commission could consider whether there are any reasons to depart from that. It says the Commission should have carried out the sort of analysis that the Ministry for the Environment did (depicted in the chart at [122] above).

¹⁷⁸ See n 57 above.

¹⁷⁹ *The State of Netherlands v Stichting Urgenda*, above n 104.

¹⁸⁰ European Convention for the Protection of Human Rights and Fundamental Freedoms 213 UNTS 222 (entered into force 3 September 1953).

¹⁸¹ At [6.3].

¹⁸² At [8.3.5].

[160] LCANZ goes on to say that, in light of the urgent need to approximately halve emissions from 2010 levels by 2030 to limit warming to 1.5°C, the Commission needed to give equal weight, if not primacy, to the 1.5°C purpose rather than simply focussing on the 2050 Target. It says the first task was to consider what contributing to the 1.5°C goal under the Paris Agreement required. It says this was the same question the Commission was required to address in its NDC advice. It says this is partly a question of science (addressed by the 2018 Special Report) and partly a question of national capacity and international equity informed by the Paris Agreement.

[161] To contribute to the 1.5°C goal, therefore, LCANZ submits the following approach was required:

- (a) apply the best scientific evidence of what is required to limit the temperature increase to 1.5°C by applying the IPCC pathways from the 2018 Special Report;
- (b) take into account the mandatory considerations in 5M and 5ZC, which include issues of international equity based on the kind of analysis carried out by the Ministry for the Environment referred to earlier; and
- (c) if (a) and (b) resulted in a figure that the Commission found on the evidence not “likely to be technically and economically achievable”, to then consider whether this justified a lower contribution under the “common but differentiated responsibilities and respective capabilities” principle.¹⁸³

[162] I do not accept this submission. This was a possible analytical framework but not a required one. It comes close to seeking to elevate the statutory purpose to contribute to the global 1.5°C effort into the primary, independent and enforceable duty. I agree with the Minister that the words “contribute to” which are more consistent with an aspiration rather than an obligation.¹⁸⁴ I accept the Minister’s

¹⁸³ Paris Agreement, art 4(3).

¹⁸⁴ The Minister relies on *R (Friends of the Earth) v Secretary of State of Energy and Climate Change* [2009] EWCA Civ 810.

submission that there is a distinction to be made between international obligations and political commitments although political commitments may still be relevant considerations under the statutory framework.¹⁸⁵

[163] The international obligation under the Paris Agreement is to prepare and maintain the NDCs¹⁸⁶ and related reporting obligations.¹⁸⁷ It is a defining feature of the Paris Agreement that it is for each party to determine for itself what emissions reductions it will contribute to the global temperature goals. One of the purposes of the Climate Change Response Act is to enable New Zealand to meet its international obligations under the UNFCCC, the Kyoto Protocol, and the Paris Agreement.¹⁸⁸ Consistent with the distinction between obligations and commitments, these are said to include meeting the first commitment under the Kyoto Protocol, and New Zealand's obligation to report to the Conference of the Parties under the UNFCCC, the Kyoto Protocol and the Paris Agreement.¹⁸⁹

[164] I also accept the Minister's submission that the words "contributing to" used in s 5W on their plain and ordinary meaning do not require New Zealand's international obligations arising from the Paris Agreement to be met via the emissions budgets. The NDC is the vehicle used to meet the relevant international law obligations arising from the Paris Agreement. The setting of NDCs is a matter of the Crown's prerogative powers. The NDC may be met through a combination of the domestic mitigation measures achieved under the Climate Change Response Act and offshore mitigation.

¹⁸⁵ The Minister submits that LCANZ's submissions mischaracterise several provisions in the Paris Agreement by portraying political/diplomatic commitments as legal obligations. For example, the underlying aim of the Paris Agreement is to limit warming to two degrees and preferably 1.5°C, but it does not impose a binding obligation to do so. Further, it is not the case that signatories to the Paris Agreement "must" aim to reach global peaking of greenhouse gas emissions as soon as possible. The word "must" has been added by LCANZ. The use of the word "aim" reflects a political/diplomatic commitment, not a legal obligation. See Lavanya Rajamani and Jacob Werksman "The Legal Character and Operational Relevance of the Paris Agreement's Temperature Goal" (2018) 379 *Phil Trans R Soc 1* at 12, discussing that "in light of different national circumstances" is ambiguous and has limited legal pull and the expectation that the agreement will be implemented to reflect this principle essentially leaves the choice of interpretation, and degree of implementation, to national determination. The article concludes that "the Paris Agreement falls short of converting the temperature goal into a provision with specific legal force applicable to the actions of individual parties".

¹⁸⁶ Paris Agreement, art 4(2).

¹⁸⁷ Articles 4(9) and 13(7).

¹⁸⁸ Climate Change Response Act, s 3.

¹⁸⁹ Section 3(1)(a).

[165] The Climate Change Response Act provides the primary mechanism (via emissions budgets and the Emissions Trading Scheme) for pursuing domestic mitigation measures. As set out earlier, the purpose of the Climate Change Response Act is to provide a framework by which New Zealand can develop and implement clear and stable climate change policies that “contribute to the global effort under the Paris Agreement to limit the global average temperature increase to 1.5° Celsius above pre-industrial levels”.¹⁹⁰ The primary mechanism in the framework for contributing to the global effort is the setting of the 2050 Target and providing for the setting of emissions budgets as stepping stones to those targets. The 2050 Target was set at a level that the Government viewed to be in line with limiting the global average temperature increase to 1.5°C and was drawn from the work of the IPCC. The Act sets out the purposes of emissions budgets and the considerations that must be taken into account in setting them. While LCANZ’s approach is one way that the Commission could have approached its task, the Act does not mandate or require this approach.

[166] This leads to the next issue, namely how the s 5W purpose interrelates with the mandatory considerations.

Statutory interpretation: a “bottom line” purpose?

[167] LCANZ submits the s 5W purpose of contributing to the 1.5°C global effort creates a “bottom line”, meaning that the Commission must have regard to the mandatory considerations in a way that achieves this purpose.

[168] This submission is based on the Supreme Court’s majority decision in *Trans-Tasman Resources Ltd v Taranaki-Whanganui Conservation Board*.¹⁹¹ That case concerned the granting of marine and marine discharge consents pursuant to the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012. That Act contains a purpose provision. This provision includes a purpose to “protect the environment from pollution by regulating or prohibiting the discharge of harmful substances ...”.¹⁹² It further provides that “in order to achieve the purpose, decision

¹⁹⁰ Section 3(1)(aa)(i).

¹⁹¹ *Trans-Tasman Resources Ltd v Taranaki-Whanganui Conservation Board* [2021] NZSC 127.

¹⁹² Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012, s 10(1)(b).

makers must ... take into account decision-making criteria specified” in the Act.¹⁹³ The specified decision making criteria set out a range of factors the decision maker was required to consider.

[169] The majority decision held that the purpose provision provided an overarching guiding framework for decision making and had substantive or operative force.¹⁹⁴ This meant the decision-making criteria needed to be considered and applied in order to “achieve” the purpose of protecting the environment from pollution.¹⁹⁵ If this purpose could not be protected then a proposed discharge had to be prohibited.¹⁹⁶

[170] The purpose provision (s 5W) and the mandatory considerations provision (5ZC) of the Climate Change Response Act are of a different nature. Part 1B, subpart 2 of the Climate Change Response Act concerns emissions budgets. The purpose of this subpart is to meet the 2050 Target and contribute to the 1.5°C global effort.¹⁹⁷ This purpose is given effect by the setting of emissions budgets. Those budgets are set taking into a range of considerations in s 5ZC. These include scientific advice and international obligations. But they also include economic consequences and impacts on community.

[171] The Act does not require New Zealand to set budgets by mathematically applying the IPCC pathways without regard to other considerations. The purpose provision does not set a bottom line for each budget period. Rather, the scheme of the subpart is of the more usual kind whereby the Commission makes an overall assessment of the stipulated relevant considerations with the s 5W purpose in mind.¹⁹⁸ Consistent with this, the Commission must consider whether its proposed budgets, that have taken into account the relevant considerations, will put us on a path to meet the 2050 Target and whether they contribute to the 1.5°C goal.

¹⁹³ Section 10(3)(a).

¹⁹⁴ *Trans-Tasman Resources Ltd v Taranaki-Whanganui Conservation Board*, above n 191, per Glazebrook J at [240], with whom Williams J at [292]–[293] and Winkelmann CJ at [304] agreed.

¹⁹⁵ At [247].

¹⁹⁶ At [245].

¹⁹⁷ Section 5W.

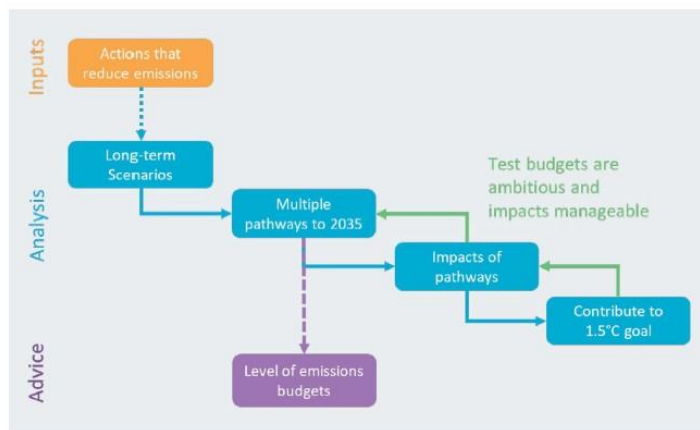
¹⁹⁸ This was the approach the minority (William Young and Ellen France JJ) favoured in *Trans-Tasman Resources Ltd v Taranaki-Whanganui Conservation Board*, above n 191, at [7] and [50]–[51] under the legislation at issue there.

Did the Commission correctly interpret its task?

[172] Chapter Four of the Advice set out the Commission’s process for determining the emissions budgets. It involved:¹⁹⁹

- (a) gathering and testing the evidence and assumptions;
- (b) modelling long-term scenarios to 2050 and beyond, and multiple paths to 2035, and using the results to calculate draft emissions budgets; and
- (c) testing draft emissions budgets and making adjustments “to ensure that any impacts were manageable, that they were sufficiently ambitious, and that they were a sufficient contribution to the global 1.5°C effort”.

[173] The Commission illustrated this approach with the following diagram:²⁰⁰



[174] Chapter Five of the Advice discussed the recommended budgets. This discussion included:

5.1.4 Contribute to the global 1.5°C effort

33 Aotearoa has a strong focus on getting to net zero – the support for the Climate Change Response (Zero Carbon) Amendment Act in 2019 shows that this is a collective goal. At the same time, the Commission also has to consider how Aotearoa is contributing to the global effort of keeping warming to 1.5°C.

¹⁹⁹ Final Advice, above n 3, at 47–48.

²⁰⁰ At 51.

- 34 There is no one prescriptive path of emissions reductions for Aotearoa or any other nation that will guarantee the world limits warming to within 1.5°C. This also means there is no single prescribed way to determine whether our recommended emissions budgets are compatible with contributing to the global 1.5°C effort.
- 35 The targets in the Act were set at a level that the Government viewed to be in line with the effort of limiting warming to 1.5°C above pre-industrial levels. In setting these targets, the Government drew on the Intergovernmental Panel on Climate Change (IPCC) *Special Report on Global Warming of 1.5°C* released in 2018. At a high level, this means that any emissions budgets set to meet our domestic targets are also consistent with what Aotearoa needs to do to meet international obligations.
- 36 We have also considered how emissions of the different gases would change under these budgets compared to the IPCC’s assessment of global 1.5°C pathways. These global pathways provide useful insights for considering how our recommended emissions budgets contribute to limiting warming to 1.5°C. However, the pathways represent global averages and do not set out prescriptive pathways for individual nations. There is no ‘right way’ to reduce emissions.
- 37 As a result, we looked at the relative reductions and global trajectories for the different gases, drew out the key lessons and features, and then applied these in the Aotearoa context.
- 38 Our recommended budgets would put Aotearoa on track to meet the targets in the Act. The demonstration path would deliver net carbon dioxide emissions from Aotearoa at zero by 2038. It would also deliver combined emissions of nitrous oxide and carbon dioxide at net zero by 2050.
- 39 The reductions in biogenic methane in our recommended emissions budgets would put Aotearoa on track to meeting the biogenic methane target of reductions of at least 24%-47% by 2050. If some of the more uncertain methane reducing technologies come to fruition, biogenic methane emissions could reduce further.
- 40 The total contribution Aotearoa makes to the global 1.5°C effort is not limited to what can be done domestically. We have recommended emissions budgets that are ambitious and can be achieved solely through domestic actions. The Government can choose to increase the country’s total contribution by reducing emissions offshore. This is discussed in more detail in *Chapter 21: The global 1.5°C effort and Nationally Determined Contribution for Aotearoa*.

[175] In summary:

- (a) the Commission considered budgets that would meet New Zealand’s objective of net zero by 2050 and “also” how they would contribute to meeting the global 1.5°C effort;

- (b) the IPCC 1.5°C global pathways provided useful insights to how the Commission’s recommended budgets contributed to the global 1.5°C effort but were not prescriptive;
- (c) the Commission’s path would have New Zealand reaching net carbon dioxide emissions by 2038; and
- (d) New Zealand’s contribution to the global 1.5°C effort was not limited to what could be done domestically. Its total contribution could be increased by reducing emissions offshore.

[176] Further detail about the compatibility of the budgets with the 1.5°C goal was provided in Chapter 9 of the Advice. This chapter was entitled “Contributing to limiting warming to 1.5°C”. Under the “Summary” of this chapter, it said:²⁰¹

...

The domestic emissions reduction targets for Aotearoa are set at a level the Government has judged to be in line with contributing to global efforts to limit warming to 1.5°C. This is a requirement under the Climate Change Response Act (the Act). To make sure the Climate Change Commission’s (the Commission’s) budgets are compatible with this, we have carried out a detailed assessment.

Our assessment of how the recommended budgets contribute to the global 1.5°C effort:

We have considered two components when assessing whether our emissions budgets are compatible with the global 1.5°C effort.

1. We looked at whether the emissions budgets are compatible with the 2050 emissions reduction targets. The country’s carbon dioxide and methane targets were set by the government as our domestic contribution to the 1.5°C global effort.
2. We looked at how the emissions reductions for the different greenhouse gases in our work compare to the Intergovernmental Panel on Climate Change (IPCC) 1.5°C pathways. We looked at the relative reductions and global trajectories for the different greenhouse gases in the IPCC’s work, drew out the key features, and then applied these in the Aotearoa context.

The Commission’s analysis shows our recommended emissions budgets put Aotearoa on track to reach net-zero carbon dioxide emissions by 2038. This is ahead of the range in the IPCC pathways of 2045-2055. The recommended

²⁰¹ At 184.

budgets also put us on track to reach net zero for all long-lived greenhouse gases before 2050.

[177] The chapter went on to discuss global efforts to limit warming to 1.5°C. It noted that reducing emissions requires a global effort with each country doing its part and that more and more countries are strengthening their international climate change commitments. It noted that the Commission also needed to consider broader wellbeing factors such as eradicating poverty, safeguarding food security and addressing other environmental outcomes. Trade-off judgements must be made from an Aotearoa perspective.²⁰²

[178] Chapter 9.3 of the Advice contained a section entitled “Global 1.5°C compatible pathways”. This referred to the IPCC global pathways. It noted that within all these pathways, “limiting warming to 1.5°C requires the world to rapidly reduce emissions of all greenhouse gases between now and 2030” and that slower reductions are then needed until the end of the century. It stated that all of the 1.5°C compatible pathways show that “[n]et emissions of carbon dioxide and other greenhouse gases peaking in the 2020s, then rapidly reducing through the 2030s and 2040s”.²⁰³

[179] This section of the Advice went on to state:²⁰⁴

27 It is often said that global emissions must halve by 2030 from 2010 levels to limit warming to within 1.5°C above pre-industrial levels. This is a useful rule of thumb, but is a simplification of the actual emissions reductions assessed by the IPCC. In the global 1.5°C pathways, net carbon dioxide emissions are modelled to reduce by around 50% by 2030. Emissions of other gases are modelled to reduce more slowly.

28 The global IPCC pathways provide useful insights for considering how our recommended emissions budgets contribute to the global 1.5°C effort. However, the pathways represent global averages and do not set out prescriptive pathways for individual nations. There is no ‘right way’ to reduce emissions. Care needs to be taken when applying the IPCC pathways to Aotearoa for three key reasons:

- Many of the emissions reduction opportunities that will be most important for the world will not be as important in Aotearoa given our major sources of emissions. For example, globally, coal power generation accounts for a much larger share of emissions

²⁰² At 189–190.

²⁰³ At 191.

²⁰⁴ At 191.

and it is here that the sharpest early reductions in the IPCC pathways occur. Most electricity generation in Aotearoa however is already renewable, so this large reduction opportunity does not exist for Aotearoa.

- The IPCC pathways group the emissions of the individual gases in different ways to those in the Act. For example, the IPCC assessed reductions in methane from agriculture, while emissions budgets are set for biogenic methane.
- The IPCC pathways are set relative to a 2010 base year, while the targets in the Act are set relative to 2017.

29 There are questions about whether it is still possible for the world to limit warming to 1.5°C. The longer countries wait to act, the harder it gets, with greater reliance placed on emissions removal technologies that are not currently available. Towards the end of 2021 the IPCC will release its sixth assessment report which will provide the most up-to-date science on this question.

[180] It is therefore clear that the Commission correctly understood the twin purposes referred to in s 5W and advised emission budgets intended to be consistent with those purposes. The Advice recognised that the 2050 Target was set to give effect to the 1.5°C global effort but the rate of reductions was also important to the 1.5°C global effort. The Commission compared the emissions budgets with the IPCC 1.5°C pathways. However, it was not the case that the emission budgets could only be consistent with the IPCC 1.5°C pathways in order to be consistent with the 1.5°C global effort. New Zealand’s contribution by way of reduced domestic emissions could be less than the global average if that was appropriate for its circumstances. Relevant to this was the fact that the IPCC pathways showed that the sharpest early reductions could be made by moving away from coal power generation. However, most of New Zealand’s electricity generation was already renewable. The Commission recognised that the time of emissions reduction mattered in that its pathway would put New Zealand on track to meet net-zero carbon dioxide emissions by 2038 and this was ahead of the IPCC pathways of 2045–2055.

[181] The Advice went on to discuss the comparison it had made between our emissions budgets and the IPCC global pathways. It noted that it calculated “the

reductions for net carbon dioxide ... using a gross-net approach”.²⁰⁵ Under the heading “net carbon dioxide” it said:²⁰⁶

- 35 Carbon removals by forests are a major opportunity to reduce net emissions in Aotearoa. Figure 9.4 shows the scale of carbon removals by forests in comparison to gross emissions of carbon dioxide in the demonstration path. Under the internationally agreed accounting rules, all emissions from deforestation are included, as are carbon removals from forest planted after 1989. This is different to the 2010 base year used in the IPCC pathways. However, by 2030 almost all of the forest removals are from forest planted after 2010, so the effect of the different base year is negligible.
- 36 Figure 9.4 shows that Aotearoa reaches net-zero carbon dioxide emissions by 2038, ahead of the range in the IPCC pathways of 2045-2055.

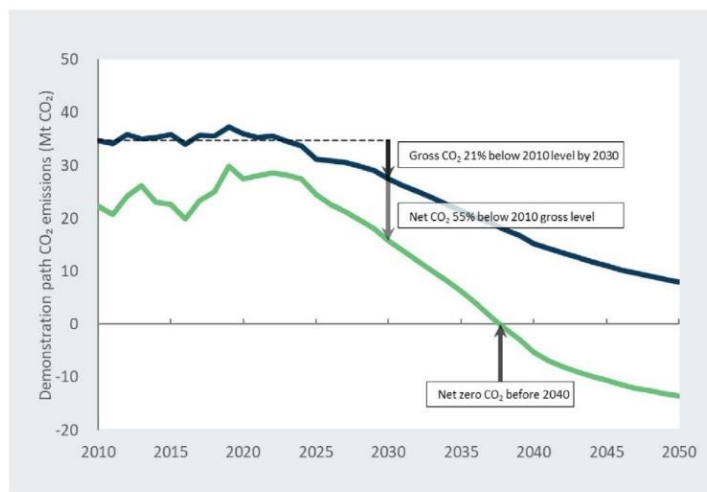


Figure 9.4: Gross and net carbon dioxide emissions under the demonstration path between 2010 and 2050

[182] The reference to “internationally agreed accounting rules, all emissions from deforestation are included, as are carbon removals from forest planted after 1989” is discussed under the next ground of review. For now, the point is that the Commission carried out analyses using those accounting rules which it considered demonstrated that the budgets were consistent with the 2050 Target and contributing to the 1.5°C global effort.

[183] LCANZ is correct that the Commission did not carry out analysis of the kind conducted by the Ministry for the Environment. That advice gave a range of other measures by which New Zealand’s equitable contribution could be considered. The

²⁰⁵ At 192.

²⁰⁶ At 193.

Minister had that advice before the emissions budgets were set. Whether the Commission should have carried out a similar analysis as part of its Advice is neither here nor there given this. It was aware there were different ways this could be assessed.²⁰⁷ It is, however, clear from the Commission's Advice that it considered the budgets should be consistent with the purpose of s 5W and advised on budgets that it considered were consistent with that purpose.

[184] As the Advice explained, the emissions budgets were less than the NDC because New Zealand intended to contribute to offshore reductions to meet the NDC.²⁰⁸ The Advice explained that trying to meet the current NDC or an updated NDC solely through domestic action at this early stage in New Zealand's transition to a low emissions economy would be highly challenging; risk severe social and economic impacts on New Zealand communities, people and businesses; have a legacy impact on the quality of life of younger generations; and disproportionately impact Māori.

[185] I consider that the content of the Advice shows that the Commission correctly understood its task to provide advice on budgets, taking into account the mandatory considerations in light of and consistent with the s 5W purposes. Whether its advice applied an accounting methodology that was not available to it is discussed under the third ground of review. Whether its conclusion that the proposed budgets were consistent with the s 5W purposes was irrational or unreasonable is discussed under the fourth ground of review.

Misinterpretation of criteria?

[186] Lastly under this ground of review, LCANZ submits that the Commission deviated from the requirement under s 5ZC(2)(b)(iv) to recommend budgets that are

²⁰⁷ See [99] above.

²⁰⁸ This is referred to in the executive summary of the Advice. It is repeated in Ch 9 of the Advice, where it said at 186: "The NDC is different from emissions budgets in that it can involve both domestic action and contributing to action overseas (offshore mitigation). Emissions budgets represent only part of the total contribution Aotearoa makes to limiting warming. As offshore mitigation can be included in the NDC, the difficulty of reducing emissions within Aotearoa is less relevant to assessing the NDC, but remains a mandatory consideration for emissions budgets under the Act".

“ambitious but likely to be technically and economically achievable” and instead recommended budgets that have a low degree of risk and that are “economically affordable”.

[187] The Commission submits that LCANZ’s criticism of the Commission grouping the mandatory considerations from s 5ZC(2) into three criteria (that budgets be fair, equitable, inclusive; ambitious; and achievable) is not a fair representation of the Commission’s approach. The Commission was aware of the mandatory relevant considerations and they are reflected throughout the advice. It makes the point that LCANZ does not point to any specific mandatory consideration that it claims were not in fact given proper consideration by the Commission. It submits that paraphrasing a statute is not rewriting it. It was not required to repeat the terms of s 5ZC(2) verbatim every time it was discussing the emission budgets. It says the grouping of them into broader categories was a useful approach and the Advice shows that it correctly understood its task.

[188] I agree with the Commission. It is not a fair characterisation of the Commission’s Advice that it substituted the requirement to recommend Budgets that are “ambitious but likely to be technically and economically achievable” with Budgets that were “economically affordable”. For example, Chapter Five of the Advice, which discussed the recommended emissions budget, said that the key decision in recommending the budgets was “how quickly Aotearoa should act to deliver emissions reductions” and said:²⁰⁹

We have been guided by the requirements and considerations under the Act, which are grouped around achieving three key outcomes:

1. **Fair, inclusive and equitable** – emissions budgets that can be achieved in a way that is in line with Te Tiriti o Waitangi/The Treaty of Waitangi, that are affordable, manage negative impacts and support those most affected and least able to adjust, maximise broader opportunities to improve health and environmental outcomes, and ensure intergenerational equity.
2. **Ambitious** – emissions budgets that are ambitious and put Aotearoa on track to meet its emissions reduction targets, sustain those targets and contribute to the global effort of limiting warming to within 1.5°C of pre-industrial levels.

²⁰⁹ Final Advice, above n 3, at 60.

3. **Achievable** – emissions budgets that are technically achievable and economically affordable in light of uncertainty and real-world constraints. This recognises the time it takes people to build supply chains, install new infrastructure, develop markets, and develop skills.

Our recommended emissions budgets are fair, inclusive, equitable, ambitious and achievable. It is possible to meet them with solutions that are available to us today. If new technologies come on the market in the next few years, it may be possible and sensible to overachieve on these budgets.

[189] It demonstrated its approach with the following table:²¹⁰

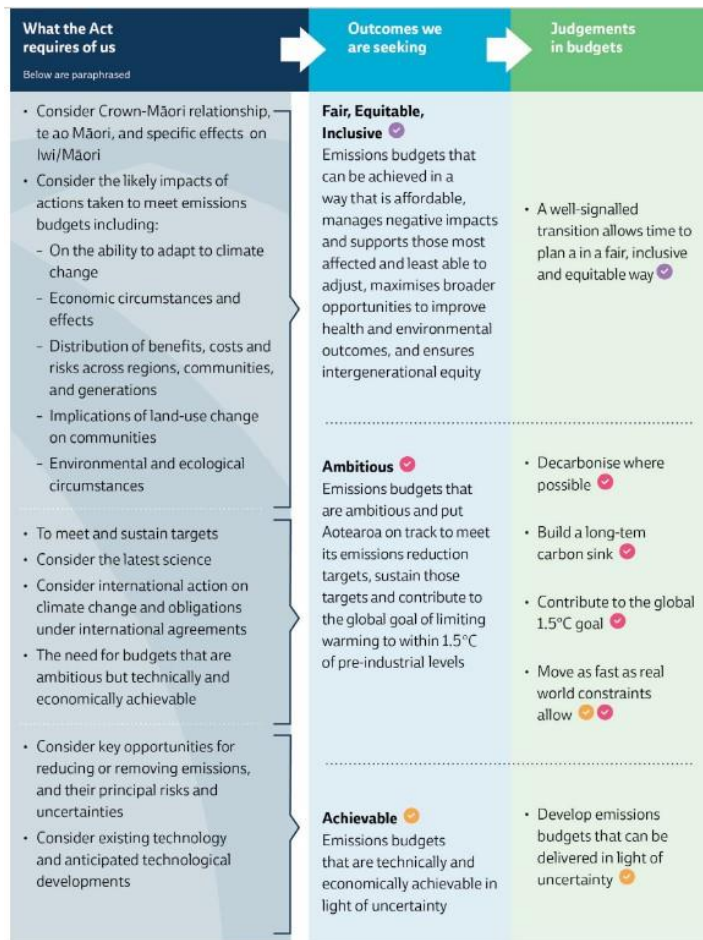


Figure 5.1: The outcomes we are seeking to achieve in recommending emissions budgets, the requirements in the Act that inform these outcomes, and the judgements we have made to achieve these outcomes.

[190] The Commission’s approach, taking into account budgets that were “ambitious but likely to be technically and economically achievable” is also apparent in Chapters Four and Five of the Advice. The Commission responded to submissions on the draft advice calling for faster transition and deeper reductions. The Commission considered that more ambitious emissions budgets would mean transitioning faster than real-

²¹⁰ At 63.

world constraints for deploying technology, developing supply chains, infrastructure and markets would allow and would have significant consequences. Its modelling included how sensitive the budget paths were to key input assumptions in order to determine whether the recommended emissions budgets would be achievable as well as ambitious.

Conclusion

[191] The purpose of contributing to the 1.5°C global effort was not a “bottom line” purpose in the *Trans-Tasman* sense. It was a purpose additional to the 2050 Target. It recognised that the timing of emissions reductions, as well as the end point, mattered. The proper approach was to set emissions budgets that have regard to the mandatory considerations in light of the purpose to meet the 2050 Target and to contribute to the 1.5°C global effort. The Commission applied this approach and therefore did not misinterpret these provisions. This ground of review is not made out.

Third ground of review: was MAB accounting permissible?

Introduction

[192] This ground of appeal relates to the approach the Commission used to account for net emissions in its recommended emissions budgets; how progress towards meeting the budgets and the 2050 Target would be assessed; and assessing the compatibility of the 2016 NDC.

[193] The accounting methodology used by the Commission and recommended to the Minister was described as a modified activity-based or MAB methodology. Like Kyoto Protocol accounting, it distinguishes between forests planted before and after 31 December 1989. It differs, however, in that it uses an averaging approach to removals of greenhouse gases from post-1989 forests.

[194] LCANZ says that the Commission erred in law by recommending the MAB approach. It says the Act set out the formula for measuring emissions and mandated national inventory reporting (the reporting required under the UNFCCC) and, in

particular, the use of the inventory data tables contained in New Zealand's Greenhouse Gas Inventory (or GHGI) for this reporting, in that formula.

[195] The Commission and the Minister say that the Climate Change Response Act does not mandate an accounting methodology. Rather, Parliament directed the Commission to advise on the accounting methodology for measuring progress in meeting the budgets and the 2050 Target. They say the recommendation to use MAB was one that was open to it. The Commission further says that, even if LCANZ's interpretation of the Act was correct, it would affect only how the budgets are expressed and not the level of ambition they represent.²¹¹

Climate change accounting and trees

[196] Climate change accounting is about how emissions are measured and progress on targets are measured and reported.²¹² As noted earlier, there were prescriptive accounting rules for Kyoto targets under the Kyoto Protocol, whereas the Paris Agreement is premised on transparency rather than prescription. As also noted earlier, the accounting rules for Kyoto targets distinguished between countries for whom trees were a net *source* of emissions and those for whom trees were a net *sink*.

[197] Trees can be a sink for emissions (when they are growing) or a source of emissions (when they are harvested). Commercial forests that are harvested and replanted over and over again have a cycle where they sequester carbon from the atmosphere and then release it again. The usual cycle is around 23–28 years. Because of this cycle, a commercial forest only makes a real contribution to carbon sequestration when it is first planted and grows to maturity. After this, on a year-by-year basis a forest may be adding or removing carbon, but it represents no real change to our emissions over time.

²¹¹ The Commission also says that no error of law would arise unless and until the Minister set the budgets on the same basis. However, this submission is overtaken by events. As discussed earlier, the Minister accepted the Commission's proposed budgets with only minor amendments to take into account new information.

²¹² The Climate Change Response Act requires the Commission to use the GWP₁₀₀ metric to calculate emissions budgets levels.

[198] New Zealand has approximately 1.2 million hectares of forests planted prior to 1990.²¹³ Relative to our size, New Zealand has a lot of commercial forests going through this cycle. The way that the effects of trees are measured and reported is therefore important.

The Commission's advice

[199] Chapter 10 of the Advice discussed the rules for measuring progress towards emissions budgets and the 2050 Target. The Commission commenced this Chapter by stating that it had developed and recommended accounting rules for monitoring this progress.²¹⁴

[200] The Commission said it had chosen to calculate emissions on a production (rather than a consumption) basis. This enabled the Commission to use the GHGI which provided the most comprehensive and robust emissions estimates for New Zealand.²¹⁵

[201] For land emissions it discussed that the choice was between a “land-based approach” and an “activity-based approach”. This choice was discussed further in the Commission’s supporting volumes.²¹⁶

[202] It explained that New Zealand annually reports its Greenhouse Gas emissions through the “GHG Inventory” as part of its obligations under the UNFCCC. This uses a “land-based approach”. It aims for completeness. It accounts for both pre-1990 and post-1989 forests. It attempts to cover all emissions and removals from all land-use categories (including soil, trees, plants, biomass, and wood products) without any exclusions or limitations for what causes them. Emissions and removals are reported in a way that corresponds to tree growth, harvest and deforestation (known as “stock change accounting”). Because it tries to record “emissions and removals when they occur, it gives a truer representation of ‘what the atmosphere sees’”.²¹⁷

²¹³ Predominantly these are exotic species and 90 per cent are radiata pinus. Natural forest (mostly tall native forests and areas of regenerating native trees) comprises 7.7 hectares of the total area. Supporting Evidence, above n 11, at [3.4.2].

²¹⁴ Final Advice, above n 3, at 195.

²¹⁵ At 195 and 198.

²¹⁶ At 195 and 199.

²¹⁷ At 199.

[203] The Commission explained that an “activity-based approach” was introduced under the Kyoto Protocol. It used a smaller subset of activities and land types than the land-based approach. It focussed on the impact of additional, human activities conducted after 1990 (the base year agreed to). New Zealand had already communicated to the UNFCCC the “high-level” approach it intended to take to accounting for its first NDC. This was a modified version of the “activity-based” approach for land emissions under the Kyoto Protocol. An activity-based approach focussed on the impact of additional human caused activities.²¹⁸

[204] As with Kyoto Protocol accounting, the modified activity-based (MAB) approach for New Zealand’s NDC distinguished between pre-1990 forests and post-1989 forests. Deforestation emissions (involving harvesting or otherwise removing forests and converting it to a different land use) are counted for both pre-1990 and post-1989 forests, whereas afforestation and reforestation emissions and removals are counted for forests established or re-established after 1989.²¹⁹

[205] The key change from Kyoto Protocol accounting was that an averaging approach would apply to removals from post-1989 forests.²²⁰ The Commission discussed that the stock change approach used in our national inventory reporting and accounting for previous targets resulted in significant fluctuations in net emissions due to harvest cycles.²²¹ Averaging focussed on the long-term effects of a forest on carbon stocks, smoothing out the long-term net emissions trajectory of commercial forests by factoring out the peaks and troughs associated with these forests.²²²

[206] The Commission demonstrated the averaging approach as against the stock change approach as follows:²²³

²¹⁸ At 200.

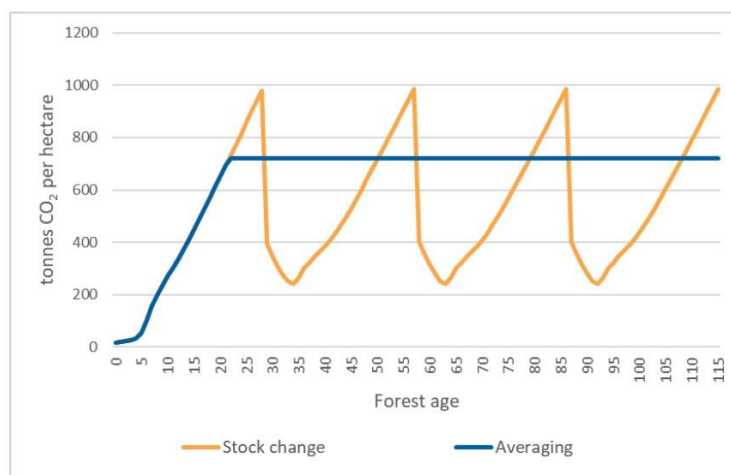
²¹⁹ At 200.

²²⁰ Supporting Evidence, above n 11, at [3.4.2].

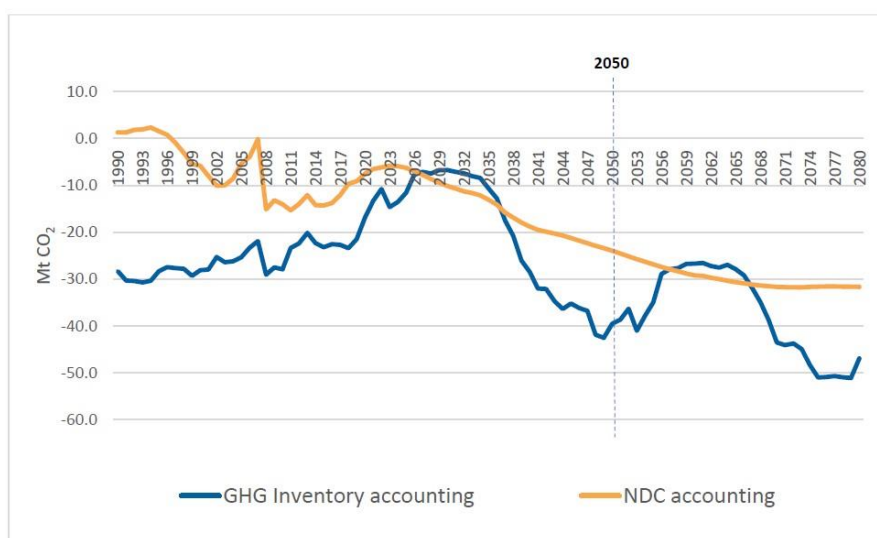
²²¹ Final Advice, above n 3, at 201.

²²² At 199.

²²³ Supporting Evidence, above n 11, at [3.4.2].



[207] The Commission also provided a comparison of New Zealand’s net forest emissions projections²²⁴ using the GHG Inventory (stock change) and NDC approaches as follows:²²⁵



[208] The Commission considered that the NDC’s MAB approach for land emissions accounting, with a 1990 base year and averaging for post-1989 forests, was a more suitable accounting approach for measuring progress towards emissions budgets and the 2050 Target. It explained:²²⁶

... It focuses on significant sources and sinks whose emissions can be most affected by changes to people’s behaviour now. It does this by filtering out the effects of past actions, such as regrowth of previously harvested native forests.

²²⁴ A negative number because removals exceed emissions.

²²⁵ Supporting Evidence, above n 11, at [3.4.2].

²²⁶ Final Advice, above n 3, at 199.

This approach will be used for the country's first NDC. ...

The NDC will use 'averaging' to account for afforestation and reforestation of post-1989 forests. This approach smooths out the cyclical peaks and troughs in emissions due to harvesting of post-1989 exotic production forests. It does this by accounting for removals only up until the forests reach their long-term average carbon stock. This occurs around 23 years after planting for a production pine forest on a 28-year rotation (if harvested wood products are included). Averaging focuses on the long-term effect of these forests on carbon stocks.

[209] It explained that 1990 was the base year that New Zealand agreed to in the Kyoto Protocol. Activities occurring from 1990 onwards are "additional" (that is, due to additional human activities) rather than business as usual. It meant that emissions from deforestation are counted for all forests, but removals from afforestation and reforestation are only counted for post-1989 forests.

[210] The Commission discussed that the approach could contribute to a sense of unfairness for pre-1990 forest owners because deforestation after 1989 is a liability but removals from afforestation and reforestation were not counted (whereas they are counted for post-1989 forests). It said that "averaging" under MAB reduced the differences between the two forest types. This was because "post-1989 forests that reach the long-term average carbon stock are treated similarly to pre-1990 forests, as further business as usual growth and harvesting are not accounted for."²²⁷

[211] The Commission went on to discuss the respective advantages or disadvantages of the land-based and MAB approaches. It said the main advantage of the land-based approach was that it covered more sources and sinks than MAB.²²⁸ However, it performed worse than MAB for sending a clear signal for climate action because:²²⁹

[it] results in significant fluctuations in net emissions due to harvest cycles. These are temporary and obscure underlying, more enduring trends, confusing policy and price signals about the action needed. These fluctuations also make it easier to reach net zero but difficult to maintain it after 2050. As shown in Figure 10.1²³⁰, government projections indicate that after a peak in removals around 2050, harvesting would cause forestry emissions to increase. In the NDC's modified activity-based accounting, averaging smooths out the

²²⁷ At 200.

²²⁸ At 200.

²²⁹ At 201.

²³⁰ The figure at [207] above.

fluctuations. This makes it clear that Aotearoa needs to plant new forests and reduce deforestation to contribute to longer-term emissions reductions.

[212] The Commission also considered that activity-based accounting was consistent with the analysis that informed the 2050 Target; that land-based accounting would reduce the effort to achieve the 2050 Target; and that land-based accounting resulted in higher overall uncertainty.²³¹

[213] In summary, it explained:²³²

The Commission has recommended a modified activity-based approach, including averaging for post-1989 forests. This focuses on the impact people's decisions have on emissions now and into the future, rather than rewarding or penalising decisions made in the past. It is the same as the approach that will be used in the first Nationally Determined Contribution (NDC) for Aotearoa.

We have a large area of forests that produce timber in Aotearoa, which are cut down at regular intervals. Averaging accounting provides steady and predictable emissions estimates for these forests that reflect their enduring, long-term effect on carbon stocks, rather than temporary fluctuations.

[214] Later in the Advice,²³³ the Commission said that some submitters on the draft advice regarded accounting for forests in targets as misleading and that all emissions and removals should be accounted for as reported in the GHGI. The Commission's response was that since New Zealand's first target began in 2008 under the Kyoto Protocol, the GHGI has included separate figures for reporting and accounting. They were for different purposes and separating out subsets of forests ensured accurate accounting for additional action taken on climate change. The approach was consistent with New Zealand's emissions approach since 2008, and with international norms and expectations.²³⁴

[215] Elsewhere in the Advice,²³⁵ the Commission discussed the policy direction for forests and other carbon stocks. This began by noting that forests were the only option in New Zealand available now for removing carbon dioxide from the atmosphere at scale. They should be managed strategically to provide a long-term sink for

²³¹ Final advice, above n 3, at 201.

²³² At 196.

²³³ Chapter 21, discussing the 1.5°C global effort and the NDC.

²³⁴ At 351.

²³⁵ Chapter 18.

New Zealand, rather than using them as a primary tool to meet the 2050 Target.²³⁶ Establishing new forests provided a one-off opportunity to remove carbon from the atmosphere. However, land converted to forestry needs to be kept in forests for the indefinite future, to keep that carbon stored. Continuing to remove emissions through forests would require ongoing land conversion.²³⁷

The Minister's decision

[216] Subsequent to the hearing, the Minister accepted the Commission's recommendation to use MAB.²³⁸ The publicly available response to the recommendation said:²³⁹

Having considered the Commission's recommended rules to measure progress, the Minister has set the following package of rules and supporting actions to align with the way New Zealand measures progress towards its international targets, in accordance with international guidelines. These include:

...

2. Use of modified-activity based accounting framework for the land use, land-use change and forestry (LULUCF) sector, with a 1990 base year and 'averaging' for post-1989 planted forests, aligning emissions budgets accounting with the approach used for New Zealand's first Nationally Determined Contribution (NDC1) under the Paris Agreement.

[217] The report also explained:²⁴⁰

The averaging approach is where the carbon stocks in post-1989 planted forests are accounted for until they reach their long-term average carbon stock. Once they reach their long-term average, the stocks are considered static for accounting purposes, unless the forests are deforested. Averaging enables the emissions and removals from the cycle of harvest and replanting of these forests to be smoothed out over time.

²³⁶ At 314.

²³⁷ At 315.

²³⁸ Following the hearing, in response to a minute dated 11 August 2022: *Lawyers for Climate Action NZ Inc v Climate Change Commission* HC Wellington CIV 2021-485-341, 11 August 2022 (Minute of Mallon J), I received this information.

²³⁹ See Ministry for the Environment *Response to the Climate Change Commission's advice on setting emissions budgets* (16 May 2022) at 9 (footnotes omitted) <www.parliament.nz>.

²⁴⁰ At 9, n 20.

Statutory provisions

[218] As set out earlier, Part 1B (entitled Emission Reduction) sets out the 2050 Target (under Subpart 1) and the requirement to set a series of emission budgets (under Subpart 2). For the 2050 Target, s 5Q(1) requires that “net accounting emissions” of greenhouse gasses, other than biogenic methane, are zero by 1 January 2050. Sections 5X and 5Y require that the Minister set the emissions budgets, expressed as a net quantity of carbon dioxide equivalent. Section 5X(4) provides that the Minister must ensure that the “net accounting emissions” do not exceed the emissions budget for the relevant period.

[219] “Net accounting emissions” is a defined term. Section 4 provides:

net accounting emissions means the total of gross emissions and emissions from land use, land-use change, and forestry (as reported in the New Zealand Greenhouse Gas Inventory), less—

- (a) removals, including from land use, land-use change, and forestry (as reported in the New Zealand Greenhouse Gas Inventory); and
- (b) offshore mitigation

[220] Section 4 also defines “gross emissions”, “New Zealand Greenhouse Gas Inventory” and “removals” as follows:

gross emissions means New Zealand’s total emissions from the agriculture, energy, industrial processes and product use, and waste sectors (as reported in the New Zealand Greenhouse Gas Inventory)

New Zealand Greenhouse Gas Inventory means the reports that are required under Articles 4 and 12 of the Convention, Article 7.1 of the Protocol, and Article 13.7 of the Paris Agreement and that are prepared in accordance with section 32(1)

removals ... in Part 1B and the definition of net accounting emissions and offshore mitigation, means greenhouse gases that are removed from the atmosphere.

[221] As also set out earlier, Subpart 3 of Part 1B concerns the Commission’s role in advising on emissions budgets. Section 5ZA provides:

5ZA Commission to advise Minister

- (1) The Commission must advise the Minister on the following matters relevant to setting an emissions budget:

- (a) the recommended quantity of emissions that will be permitted in each emissions budget period; and
- (b) the rules that will apply to measure progress towards meeting emissions budgets and the 2050 target; and
- (c) how the emissions budgets, and ultimately the 2050 target, may realistically be met, including by pricing and policy methods; and
- (d) the proportions of an emissions budget that will be met by domestic emissions reductions and domestic removals, and the amount by which emissions of each greenhouse gas should be reduced to meet the relevant emissions budget and the 2050 target; and
- (e) the appropriate limit on offshore mitigation that may be used to meet an emissions budget, and an explanation of the circumstances that justify the use of offshore mitigation (*see* section 5Z).

...

[222] Section 5ZE provides for emissions budgets to be revised in certain circumstances, including if there has been “methodological improvements to the way that emissions are measured or reported”.²⁴¹ Section 5ZF enables an unused portion of an emissions budget to be carried forward to the next emission budget period (called banking). It also enables borrowing from the next budget period if the total emissions in a period are greater than the budget for this period but subject to a maximum of 1 per cent of the budget from that next period (called borrowing).

[223] Section 5ZG requires the Minister to prepare and make publicly available a plan setting out the policies and strategies for meeting the next emissions budget. Section 5ZH requires the Commission to provide advice, at least two years before the beginning of an emissions budget period, on the direction of the policy required in the emissions reduction plan for that emissions budget period.

[224] Subpart 4 of Part 1 of the Act is entitled “Monitoring”. Section 5ZJ provides:

5ZJ Commission to monitor progress towards meeting emissions budget

²⁴¹ Section 5ZE(1)(a).

- (i) The Commission must regularly monitor and report on progress towards meeting an emissions budget and the 2050 target in accordance with sections 5ZK and 5ZL (which relate to reporting requirements).
- (ii) The Commission must carry out its monitoring function in accordance with the rules referred to section 5ZA(1)(b) (which relates to measuring progress towards meeting emissions budgets and the 2050 target).

[225] Section 5ZK provides:

5ZK Commission to report annually on results of monitoring

- (1) The Commission must prepare an annual report that includes, for the most recent year of the emissions budget period for which data is available from the New Zealand Greenhouse Gas Inventory,—
 - (a) measured emissions; and
 - (b) measured removals.
- (2) The reports must also include—
 - (a) the latest projections for current and future emissions and removals; and
 - (b) an assessment of the adequacy of the emissions reductions plan and progress in its implementation, including any new opportunities to reduce emissions.

...

[226] Section 5ZK goes on to provide the time frame for this report (namely, “3 months after the publication of a New Zealand Greenhouse Gas Inventory report”). It also requires the Minister to present that report in the House and make publicly available their response.

[227] Section 5ZL provides for the Commission to prepare a report, not later than two years after the end of an emissions period, evaluating the progress made in that emissions budget period towards meeting the emissions budget in the next budget period. This is to include an evaluation of how well the emissions reduction plan has contributed to that progress, recommendations as to any banking or borrowing of a budget amount that would be appropriate, and an assessment of the amount of offshore mitigation required to meet the budget for the period to which the report relates. It

also provides for the Minister to present to the House and make publicly available the Minister's response to the Commission's report.

[228] Section 5ZM provides that the only remedy or relief available if an emissions budget or the 2050 Target are not met is a court ordered declaration.

The issue

[229] The issue between the parties is whether "net accounting emissions", as used in s 5Q and 5X and defined in s 4:

- (a) "hard-wires" into the Climate Change Response Act the methodology for calculating New Zealand's emissions – when the Commission is monitoring progress against the emissions budgets and the 2050 Target as the Act requires; or
- (b) sets a formula that requires all emissions, removals and offshore mitigation to be counted, but does not specify the methodology for counting those things.

[230] This in turn depends on what is meant by:

- (a) "as reported in the New Zealand Greenhouse Gas Inventory" as referred to in the "net accounting emissions" definition; and
- (b) "the rules that will apply to measure progress towards emissions budgets and the 2050 Target", as referred to in s 5ZA(1)(b), on which the Commission is required to give advice.

The New Zealand Greenhouse Gas Inventory

[231] The second respondent has provided an affidavit from Dr Andrea Brandon to explain what the New Zealand Greenhouse Gas Inventory contains. She is a Principal Scientist, Greenhouse Gas Reporting, at the Ministry for the Environment. She has previously worked on the New Zealand Greenhouse Gas Inventory and is a lead author of the 2019 IPCC Refinement of the 2006 IPCC Guidelines for National Greenhouse

Gas Inventories.²⁴² She has previously been a bureau member of the IPCC Task Force on national Greenhouse Gas Inventories and has carried out technical reviews of the national GHGIs prepared by the European Union and various other countries.

[232] Dr Brandon explains that the GHGI contains:

- (a) UNFCCC requirements, namely:
 - (i) The annual inventory submission (required by arts 4(1)(a) and 12 of the UNFCCC) comprising:
 - (i) the National Inventory Report (NIR), which is a narrative that presents emission trends and methodologies for estimating emissions and removals; and
 - (ii) the Common Reporting Format (CRF) tables, containing annual inventory estimates of GHGs from 1990 through to the last year inventoried.
 - (ii) The National Communication, which is the narrative of what New Zealand is doing (required by arts 4(1)(b) and 12 of the UNFCCC).
 - (iii) A Biennial Report containing information on progress in achieving quantified economy-wide emission reduction targets (UNFCCC biennial reporting guidelines for developed countries).
- (b) Kyoto Protocol requirements pursuant to arts 7(1) and 7(2), namely:

²⁴² IPCC 2019 *Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories* (2019) [2019 IPCC Refinement].

- (i) supplementary information (incorporated into its annual inventory submission – refer (a)(1) above) for the purposes of complying with art 3 of the Kyoto Protocol²⁴³); and
- (ii) supplementary information (incorporated in its national communication – refer (a)(2) above) necessary to demonstrate its compliance with its commitments under the Kyoto Protocol.

[233] She explains that from 1 January 2023 onwards, the GHGI will contain the Paris Agreement requirements, namely:

- (a) a national inventory report of emissions by sources and removals (art 13(7)(a) of the Paris Agreement, replacing the UNFCCC inventory submission – refer (a)(1) above); and
- (b) information necessary to track progress made in implementing and achieving New Zealand’s NDC (art 13(7)(b) of the Paris Agreement, the NDC being required by art 4 of the Paris Agreement).

[234] In short, New Zealand’s GHGI is currently comprised of:

- (a) annual data tables containing the calculated annual emissions and removals (the national inventory, which takes the form of the CRF tables);
- (b) a narrative about trends, methodologies, plans and progress;
- (c) supplementary data tables required for calculating emissions and removals as per Kyoto Protocol requirements; and

²⁴³ Article 3 requires that Annex 1 countries use the net changes in greenhouse gas emissions from sources and removals by sinks resulting from direct human-induced LULUCF activities, limited to afforestation, reforestation, and deforestation since 1990 to meet their commitments under the Kyoto Protocol.

- (d) supplementary information demonstrating compliance with the Kyoto Protocol commitment.

[235] Article 4(1)(a) of the UNFCCC provides that the national inventory must use “methodologies to be agreed by the Conference of the Parties”. From 1 January 2023, pursuant to art 13(7)(a) of the Paris Agreement, the data tables (national inventory) will be prepared using “good methodologies accepted by the [IPCC] and agreed upon by the Conference of the Parties”, and will include information necessary to track New Zealand’s progress against its NDC.

[236] The national inventory report for 2021 is before the Court.²⁴⁴ As described in the “Background” section of this document:²⁴⁵

New Zealand’s Greenhouse Gas Inventory (the inventory) is the official annual report of all anthropogenic (human-induced) emissions and removals of greenhouse gases (GHGs) in New Zealand. It measures New Zealand’s progress against obligations under the United Nations Framework Convention on Climate Change (the Convention) and the Kyoto Protocol and is the official basis for measuring New Zealand’s progress towards its international emissions reduction targets.

The inventory submission consists of the common reporting format (CRF) database containing inventory data for 1990 to 2019 from all emissions and removals in New Zealand ...

[237] The CRF tables provide CO₂e emission data for every year from 1990 to 2019 under the headings “Energy”, “Industrial processes and product use (IPPU)”, “Agriculture”, “Waste”, “Tokelau (gross emissions)”, “Land use, land use change and forestry (LULUCF)”, “Net emissions (with LULUCF)”, and Gross emissions (without LULUCF)”.

[238] In other words, the CRF tables contain the calculations of CO₂e for each of the sectors referred to in the s 4 “gross emissions” definition (that is, agriculture, energy, industrial processes and product use, and waste sectors); for LULUCF (a negative sum reflecting that it is a removal); for gross emissions without LULUCF; and for net

²⁴⁴ Ministry of Environment *New Zealand’s Greenhouse Gas Inventory, Fulfilling reporting requirements under the United Nations Framework Convention on Climate Change and the Kyoto Protocol 1990–2019* (2021) [National Inventory Report for 2021].

²⁴⁵ At 2.

emissions (with LULUCF) for each year from 1990 to 2019.²⁴⁶ That is, the tables contain the data for all the components that make up the “net accounting emissions” definition in the Climate Change Response Act.

[239] LCANZ submits that it is not part of the Commission’s role to give advice about how progress on meeting the 2050 Target or the budgets is to be measured. Rather, Parliament has determined that “net accounting emissions”²⁴⁷ is the methodology for measuring zero greenhouse gas emissions by the 2050 Target and for determining that emissions do not exceed the emissions budget for the relevant emissions budget period. The data in the CRF tables that correspond to the “net accounting emissions” components, are plugged into those components to provide the net accounting emissions number.

[240] However, New Zealand’s GHGI also contains a supplementary table. This table provides the data that can be counted towards New Zealand’s target under the Kyoto Protocol.²⁴⁸ The Commission and the Minister submit that “as reported in New Zealand’s Greenhouse Gas Inventory” refers to the data that is or will be collected in the national inventory for making any of the reports referred to in the s 4 definition of “New Zealand’s Greenhouse Gas Inventory”. Those reports are the reports required by UNFCCC, the Kyoto Protocol or the Paris Agreement. The data may be that data collected for any of those reports.

[241] From 1 January 2023, the national inventory of emissions will be in accordance with the Paris Agreement requirements. Because progress against our NDC is to be measured using MAB, New Zealand’s GHGI will need to contain LULUCF data in accordance with that approach. That would mean that the “net accounting emissions”

²⁴⁶ It also includes Tokelau gross emissions. LCANZ has pulled the data into a summary table showing these calculations for each of these categories to demonstrate how the data was, in its submissions, meant to be used for the purposes of calculating “net emissions”.

²⁴⁷ That is, gross emissions, plus LULUCF emissions, less LULUCF removals, less offshore mitigation and any other removals, using the data for each component of the definition as reported in the GHGI.

²⁴⁸ Dr Bertram, on whose evidence LCANZ relied, agrees, at [40] of his reply affidavit, that the tables “certainly do include country data on LULUCF, separating out pre-1990 and post-1990 forestry ... and ... a set of tables ... showing the number for KP-LULUCF activities under Articles 3.3 and 3.4 of the Protocol”. He says that the gross:net and MAB calculations do not precisely fit the Protocol-based design of the tables, the calculations are not reported year-by-year in the inventory but rather are reported. I do not consider this matters for the purposes of the definition of “net accounting emissions”.

definition could calculate gross LULUCF emissions and LULUCF removals as they are calculated for Paris Agreement reporting purposes. That suggests there is a choice in the s 4 definition as to the methodology by which LULUCF emissions and removals can be counted (as per UNFCCC, the Kyoto Protocol or the Paris Agreement methodology) and the definition does not “hard-wire” a particular methodology.

Legislative history

[242] Both parties referred to the legislative history in support of their respective positions on this ground of review.

[243] The parties’ discussion of this starts with a Cabinet paper in December 2018.²⁴⁹ That paper sought Cabinet’s agreement to progressing the Climate Change Response (Zero Carbon) Amendment Bill that became the 2019 Amendment Act. It discussed the establishment of the Commission and its proposed functions. It proposed that the Commission provide advice on emissions budgets settings as the involvement of an independent body would increase government accountability and bolster public confidence. It proposed that the advice include:²⁵⁰

the accounting methodologies that will apply (eg, whether they should align with the accounting methodologies that apply to NDCs set under the Paris Agreement or those used for the New Zealand GHG inventory).

[244] It also proposed that emissions budgets could be revised in limited circumstances. One circumstance was if there were improvements in methodologies for measuring and reporting emissions.²⁵¹ It recommended that the Commission’s advice on emissions budgets include “the accounting methodologies that will apply.”²⁵²

²⁴⁹ It is not orthodox to rely on Cabinet papers or departmental reports. See *Skycity Auckland Ltd v Gambling Commission* [2007] NZCA 407, [2008] 2 NZLR 182 at [39]–[42]. See also the discussion in Ross Carter *Burrows and Carter Statute Law in New Zealand* (6th ed, LexisNexis NZ Ltd, Wellington, 2021) at 379–380, n 299. However, as both parties referred to the material and it assists in showing the development of the term “net accounting emissions”, I have considered the material but kept in mind that it is ultimately the legislation as enacted that counts.

²⁵⁰ Office of the Minister for Climate Change “Proposed Climate Change Bill” (December 2018) CAB at 11.

²⁵¹ At 37.

²⁵² At 35.

[245] The Bill as introduced to Parliament referred to the term “net emissions” when accounting for the 2050 Target and “net budget emissions” when accounting for emissions budgets. The difference between the terms was that “net emissions” did not include offshore mitigation. The report from the Select Committee recommended replacing these terms with the single term “net accounting emissions”.²⁵³ This was in accordance with Ministry for the Environment departmental report on the Bill that recommended this change, noting that it would distinguish it from the phrase “net emissions” as used in New Zealand’s GHGI reporting.²⁵⁴

[246] The Select Committee also recommended amending the definition of “New Zealand Greenhouse Gas Inventory”. It described this as “an annual estimate of human-generated greenhouse gas emissions and removals that have occurred in New Zealand since 1990”. It recommended amending the definition to refer to s 32 of the Climate Change Response Act to “emphasise that the New Zealand Greenhouse Gas Inventory is a report that is prepared in accordance with the statute.”²⁵⁵ This recommendation was also in accordance with the Ministry for the Environment departmental report.²⁵⁶

[247] The Select Committee noted that the Bill required the Commission to produce an annual monitoring report which assessed progress toward emissions budgets and the 2050 Target “based on data from the New Zealand Greenhouse Inventory”.²⁵⁷ The Select Committee’s recommendation about this concerned the timeframe for the Commission to prepare its report and for the Minister to provide their response.

[248] The original Bill included a clause setting out the matters on which the Commission must advise the Minister relevant to setting an emissions budget.²⁵⁸ This clause included “the rules that will apply to measure progress towards meeting emissions budgets and the 2050 target” as enacted in s 5Z(1)(b) of the Climate Change Response Act. The Ministry for the Environment departmental report noted that two

²⁵³ Climate Change Response (Zero Carbon) Amendment Bill (136–2) [Select Committee Report].

²⁵⁴ Departmental Report, above n 169, at 72.

²⁵⁵ Select Committee Report, above n 253, at 2.

²⁵⁶ At 33.

²⁵⁷ Departmental Report, above n 169, at 7. This recommendation became ss 5ZJ to 5ZL in the Climate Change Response Act.

²⁵⁸ Climate Change Response (Zero Carbon) Amendment Bill (136–3), cl 5X.

submitters had questioned how the accounting rules would work, particularly given the 2050 Target and emissions budgets take different forms.²⁵⁹ The Ministry discussed that the emission budgets framework takes account of the different target components (namely, the distinction between biogenic methane and all other GHGs).²⁶⁰ It noted that the Commission was also required to provide the Government with advice on the rules that should apply to measuring progress towards meeting emissions reductions and removals.²⁶¹

[249] The departmental report also discussed the Commission’s role on the emissions budget settings. It said that the advice would include:²⁶²

the accounting methodologies that will apply (eg, whether they should align with the accounting methodologies that apply to NDCs set under the Paris Agreement or those used for the New Zealand GHG Inventory)

[250] The Select Committee commentary did not discuss what the “rules” were intended to encompass. As originally introduced, this was part of Subpart 3 which had the heading “Role of Commission in setting emissions budgets”. The Select Committee recommended this be amended to “Role of Commission to advise on emissions budget” and this was the heading as enacted.

[251] The proposed amendments were marked up in the Bill. The proposed “net accounting emissions” definition is as it now appears in the Climate Change Response Act. The proposed “gross emissions” definition replaced “as those sectors are defined in the New Zealand Greenhouse Gas Inventory” to “as reported in the New Zealand Greenhouse Gas Inventory”. The definition of “New Zealand Greenhouse Gas Inventory” was amended from “means the official annual estimate of greenhouse gas emissions that have been generated in New Zealand since 1990 by human activities” to “means the annual inventory report under Articles 4 and 12 of the Convention and Article 7(1), prepared in accordance with section 31(1)”. These proposals became the definitions in the 2019 Amendment Act as enacted. By a further amendment in 2020,

²⁵⁹ Departmental Report, above n 169, at 78.

²⁶⁰ At 79.

²⁶¹ At 79.

²⁶² At 85.

the definition of “New Zealand Greenhouse Gas Inventory” was amended to add “and Article 13(7) of the Paris Agreement”.

[252] LCANZ submits that the Ministry for the Environment’s recommendation for the Commission’s advice to include “the accounting methodologies” that would apply did not appear in the Bill or the legislation as enacted. It suggests that the writer of the departmental report had possibly taken this from the initial Cabinet paper but the Bill adopted the New Zealand Greenhouse Inventory methodology rather than that which would apply for an NDC under the Paris Agreement.

[253] I do not accept this submission. In my view, the above history shows that it was envisaged at the outset that the Commission would advise on the accounting methodologies for measuring progress against the 2050 Target and the emission budgets. From the outset, the Bill provided for the Commission to give advice on the “rules” to measure that progress. That term is broad enough to include accounting methodologies. There was no further discussion or amendment to this. Had there been a change in view about whether it was a proper subject of the Commission’s advice, one would expect such discussion.

[254] It is true that the Cabinet paper, and the departmental report, made a distinction between the GHGI and NDC accounting under the Paris Agreement. But I do not agree that the Bill as it progressed and as it was enacted precluded NDC accounting as the methodology that could be used to measure progress against the 2050 Target and the budgets. It was envisaged that the data available in the New Zealand GHGI would be utilised. But, as the discussion above shows, that also included data for demonstrating Kyoto Protocol compliance. If New Zealand was going to use an activity-based methodology for accounting for LULUCF emissions and removals, then, as was the case for Kyoto Protocol, the inventory would need to collect the information that enabled it to do so. By referring to “as reported in the New Zealand Greenhouse Gas Inventory”, Parliament was not saying that the Commission had to use the UNFCCC inventory reporting CRF tables. As Dr Brandon’s evidence explained, the New Zealand GHGI will include the emissions and removals inventory necessary for Paris Agreement reporting. The definition of “net accounting emissions” enables this inventory data to be used.

[255] I conclude that the legislative history supports the view that the Act does not hard-wire the accounting methodology for tracking progress against the 2050 Target and the Budgets, and is to be the subject of advice from the Commission to the Minister.

What is covered by “the rules”?

[256] If LCANZ’s submission that the accounting methodology is “hard-wired” into the Act is correct, that raises the question of what is meant by “the rules that will apply to measure progress towards meeting emissions budgets and the 2050 target” on which the Commission is to provide advice.

[257] The Commission says that this refers to the system of accounting for greenhouse gas emissions that will be used to track progress against the budgets and the 2050 Target. It says the rules to measure progress must include how emissions will be measured as progress cannot be measured without this. The Minister agrees with the Commission that it refers to the accounting methodology for how progress is measured. This is how it was interpreted in the Advice and the Minister’s decision discussed above.

[258] LCANZ, however, says that the “rules” in s 5ZA(1)(b) refers to “waypoints” (or indicators) for checking whether New Zealand is on track to meet the budgets and the 2050 Target. For example, whether New Zealand is on track with a shift away from fossil fuel combustion for transportation to electric vehicles and from private to public transportation at various points in a budget period. It says that s 5ZA(1)(b) is forward looking (rules to measure progress) once budgets have been set. It says that the way the emissions are counted (that is, the accounting methodology) for setting budgets that must be adhered to is specified in the Act and the Commission cannot depart from that.

[259] I consider that the accounting methodology by which progress is measured comes within the ordinary meaning of “rules”. Accounting methodologies encompass the methods, conventions, policies, practices and procedures that are applied. A particular accounting methodology can equally and naturally be described as the chosen or applicable accounting rules.

[260] This ordinary and natural meaning fits with the context. Climate change accounting is highly specialised. Consistent with the Cabinet and Ministry papers discussed above, it can be expected that Parliament would vest the task of advising the Minister on the accounting rules that should be adopted on the expert independent body it was establishing in the legislation (that is, the Commission). Put the other way, and as the Commission’s submissions put it, it is unlikely that Parliament would establish an expert advisory body and, at the same time, remove from that expert body the task of advising on one of the more complex and difficult issues in New Zealand’s climate change response. Moreover, how emissions and removals are measured may evolve. This is reflected in s 5ZE which provides for emissions budgets to be revised in certain circumstances, including if there has been “methodological improvements to the way that emissions are measured or reported”.

[261] I consider that the natural and ordinary meaning of “rules” and the context support the Commission’s and Minister’s submission that Parliament intended that “rules” in s 5ZA(1)(a) would encompass advice on accounting methodology.

Henry VIII clause

[262] LCANZ submits that adopting MAB rather than GHGI accounting has the substantive effect of changing the meaning of the 2050 Target and what must be done to meet the budgets. It submits that it would raise “Henry VIII” issues.

[263] Henry VIII clauses are provisions that authorise the Executive to amend, by secondary legislation, an Act of Parliament. They are seen as raising constitutional concerns. It is permissible, but requires express authorisation and should be given a narrow and strict construction.²⁶³

[264] On the face of it, the requirement for the Commission to advise on the accounting methodology for measuring progress against the 2050 Target, and for the Minister to determine the methodology, is not a Henry VIII clause. The power to

²⁶³ See the recent discussion in *Idea Services Ltd v Attorney-General* [2022] NZCA 470 at [20]–[24]. See also Dean Knight and Edward Clark *Regulation Review Committee Digest* (6th ed, New Zealand Centre for Public Law, 2016) at 29–30; and *Joseph on Constitutional and Administrative Law*, above n 94, at 1215.

provide the advice and to determine the methodology is contained in the Act that also sets the 2050 Target. If that advice and determination “amends” the 2050 Target in the Climate Change Response Act, then it is expressly authorised by Parliament as part of the regime under the Act.

[265] The 2050 Target is that “net accounting emissions of greenhouse gases in a calendar year, other than biogenic methane, are zero by the calendar year beginning on 1 January 2050 and for each subsequent calendar year”.²⁶⁴ As the Commission discussed in its Advice, using MAB for measuring progress against the 2050 Target was consistent with the analysis that informed the 2050 Target. The definition of the 2050 Target remains unaltered whether MAB or some other accounting methodology is used to measure the progress against this target.

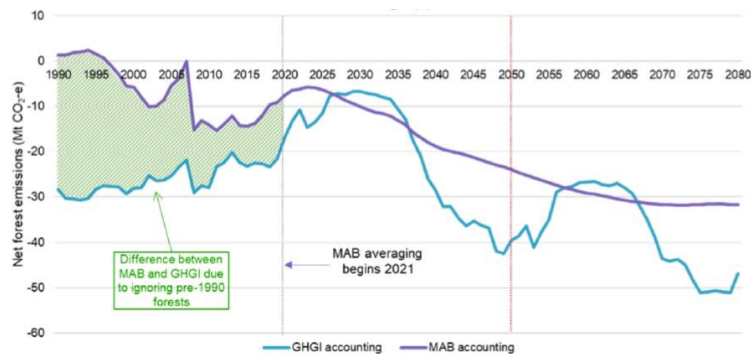
[266] Similarly, an emissions budget means “the quantity of emissions that will be permitted in each emissions budget period as a net amount of carbon dioxide equivalent”.²⁶⁵ In other words, it is a specified number. That specified number is not amended, suspended or overridden because progress against the number is measured by one particular methodology or another.

[267] The submission that the 2050 Target and the emissions budgets may be amended by the choice of accounting methodology is made because that choice can alter both the timing at which removals from forestry are counted and the calculation of removals depending on the comparator year. That in turn may create incentives to change the accounting methodology from time to time so as to make it easier to stay within the emissions budgets and meet the 2050 Target.

²⁶⁴ Climate Change Act, s 5Q. As set out earlier, it also includes 2030 and 2050 targets for biogenic methane.

²⁶⁵ Section 4 (definition of “emissions budget”).

[268] In support of this submission, LKANZ has filed expert evidence, objected to by the Commission,²⁶⁶ that demonstrates the difference between net forestry emissions²⁶⁷ accounting approaches as follows:²⁶⁸



[269] It is similar to the table the Commission used to show the difference between using GHGI and MAB accounting in its Advice set out earlier.²⁶⁹ The table shows that:

- (a) up until 2026 the MAB number is higher than the GHGI number;
- (b) from 2026 until 2036 the MAB number is lower than the GHGI number; and
- (c) from 2036 until beyond 2050 the MAB number is higher than the GHGI number.

[270] LKANZ submits that this shows the “tilt” in numbers that occurs with MAB relative to the GHGI (being the emissions that the atmosphere sees in each particular year). That is, when comparing a MAB number in 2030 or 2035 as against the MAB number from 2010, the 2010 MAB number is higher than the reality of what the atmosphere sees, and the 2030 or 2035 MAB number is lower than the reality of what

²⁶⁶ To the extent that LKANZ’s evidence seeks to support the merits of its preferred accounting approach, the Commission submits the evidence is not admissible. It also submits that Dr Taylor is not qualified to provide climate change accounting opinion. I do not accept that Dr Taylor lacks expertise to give the evidence he has. He is qualified to extract and model information using publicly available data. Moreover, the table is essentially the same as that provided by the Commission in its Advice. The Table is helpful to illustrate the point LKANZ makes.

²⁶⁷ A negative number because removals exceed emissions.

²⁶⁸ Affidavit of Dr Taylor at [19].

²⁶⁹ Refer [207] above.

the atmosphere sees. This tilts the axis to make it look like New Zealand is doing more between 2026 and 2030 to reduce emissions than the reality between these comparator years.

[271] The position becomes reversed from 2036. While this is based on assumptions around New Zealand's forestry in this period, with those assumptions the atmosphere will see greater removals (GHGI) relative to the MAB methodology. This means it will be more difficult to meet our NDC and domestic budgets if MAB is used to measure net emissions than if GHGI is used. LCANZ accepts that this may be a good thing from a pro-climate perspective, but says the problem is that there will be huge political pressure to switch from MAB to GHGI at this time. This is because, if New Zealand is unable to make the reductions in emissions necessary to achieve the 2050 Target or its international commitments, then it may be forced into buying billions of dollars of off-shore mitigation even though we have real removals taking place. Using the above tables, Dr William Taylor estimates that sticking with MAB in this period will involve an additional \$35 billion worth of abatement of costs. The concern is therefore that, by using a measure that is favourable to us now, it will cost so much more money in the future and this is not likely to be a stable policy setting.

[272] I accept that LCANZ's submissions and evidence highlight that the accounting methodology adopted may mean that "net accounting emissions" in any year may be different to the net emissions the atmosphere sees in that year. I also accept that in some periods the choice of methodology may make it easier or more difficult to demonstrate reductions. However, I consider that Parliament has determined that it is for the Commission to advise and the Minister to decide on the methodology by which progress against our emission budgets are to be measured. That is consistent with the Paris Agreement pursuant to which countries are not required to adopt a particular methodology (in contrast with the Kyoto Protocol).

[273] It is not for the Court to speculate on whether there will be political pressure to change the methodology later if that will be fiscally advantageous to New Zealand at that time, nor on the pressures that will be at play not to do so. The important point for this ground of review is that I do not accept that the statutory power to advise the Minister on the rules for measuring progress against our emission budgets or the 2050

Target infringes the principle that delegated legislation may not amend, suspend or repeal primary legislation unless Parliament clearly authorises it. The power to advise on the accounting methodology does not amend, suspend, or repeal the 2050 Target or the emissions budgets and, in any event, Parliament has clearly authorised the Commission to advise on the accounting methodology and for the Minister to determine it.

Conclusion

[274] I therefore conclude that the Climate Change Response Act authorised the Commission to advise the Minister on, and for the Minister to determine, the accounting methodologies for assessing progress towards meeting the emissions budgets and the 2050 Target. The definition of “net accounting emissions” refers to the emissions and removals reported in the GHGI. The definition of the GHGI did not just include national inventory reporting under UNFCCC. It also included Kyoto Protocol and Paris Agreement reports. The legislative history, context and the plain and ordinary meaning of “rules” all support the conclusion that it was intended that the Commission would give advice on the accounting methodology. There is no Henry VIII issue that arises from this interpretation. This ground of review is therefore not made out.

Fourth ground of review: unreasonable

Introduction

[275] This ground of review contends that the NDC Advice and the Budgets Advice were unreasonable. I have earlier discussed the approach I consider is appropriate on this ground of review.²⁷⁰

[276] It is common ground that the IPCC global pathways show a reduction in net CO₂ emissions by 2030 of between 40 to 58 per cent relative to 2010 net CO₂ emissions. This is sometimes referred to as a “rule of thumb” of 50 per cent for all emissions but in fact emissions of other gases are modelled to reduce more slowly.

²⁷⁰ Refer to the discussion under the heading “Deference and intensity of review”.

[277] LCANZ's position is that the starting point for New Zealand's NDC is one that demonstrates we are taking the lead in accordance with the guidance and commitment made under the UNFCCC.²⁷¹ This was also what the Commission purported to do.²⁷² LCANZ submits that when the gross:net approach of the Commission is converted to net:net, our NDC falls well short of the percentage reductions necessary by 2030 as indicated by the IPCC pathways. LCANZ submits that the NDC Advice is not consistent with the global 1.5°C goal and New Zealand's commitments under the UNFCCC and the Paris Agreement and was therefore unreasonable.

[278] Similarly, LCANZ submits that, rather than emissions budgets showing decreasing emissions, the budgets show increasing emissions through to 2030. The emissions budgets are said to have insufficient ambition and to fail to comply with the purpose under the Climate Change Response Act to contribute to the global 1.5°C goal. The Budgets Advice is therefore said to be unreasonable.

[279] LCANZ's submissions rely on calculations prepared by their experts, primarily Dr Taylor (an economist), which purport to show that our NDC and emissions budgets are not consistent with the 1.5°C goal. Affidavit evidence from the respondents contests aspects of these calculations, primarily that Dr Taylor has used a net:net methodology and GHGI. The Commission has put forward different calculations using MAB and a different timeframe and makes the point that the level of ambition is not determined by the methodology used. Dr Andreas Reisinger, in an affidavit filed on behalf of the Minister, has provided a comparator calculation for one aspect of Dr Taylor's evidence.

[280] The evidence is complex and technical. A judicial review application is not the place to rule on any contests in such evidence. There has not been cross examination, let alone a "hot tub" of experts or some similar process to assist with testing any differences or issues or to assist my understanding of the detail. However, the key contests are whether a gross:net approach is appropriate and whether GHGI or MAB should be used, rather than what the Commission's gross:net and MAB approach convert to under a net:net GHGI accounting methodology.

²⁷¹ Refer [21]–[23] above.

²⁷² Refer [97] above.

[281] I therefore consider that the evidence is admissible to illustrate LCANZ's concerns with the Commission's approach. I have endeavoured to extract the main points in order to assess whether the NDC Advice or the Budgets Advice were unreasonable as being inconsistent with the purpose of contributing to the 1.5°C goal; or whether the Commission has properly justified its NDC Advice and the Budgets Advice on the basis of sufficient evidence and reasoning.

Preliminary issues

[282] Some of the affidavit evidence for the Commission criticises statements in LCANZ's affidavits to the effect that the IPCC global pathways use GHGI. The criticism, however, comes down to the fact that not all developing countries publish greenhouse gas inventories and so the IPCC cannot have used global GHGI as reported in the tables submitted to the UNFCCC, at least not in all respects. LCANZ accepts that, but says the pathways approximate GHGI. That is, if the Commission wished to apply the IPCC pathways to national emissions, then annual net emissions from the GHGI is the comparable accounting comparison.²⁷³ This criticism therefore falls away – the IPCC pathways are sufficiently aligned and comparable with the GHGI for valid net:net conclusions to be drawn.

[283] Some of the Commission's evidence and submissions could be read as asserting that MAB rather than GHGI is appropriate because target accounting is required under the Kyoto Protocol. While that was so in relation to the first commitment period under the Kyoto Protocol, that is not the case for our NDC, nor our domestic emissions budgets. It may be that the reasons behind the Kyoto Protocol accounting rules still have merit for New Zealand going forward, but it is not the case that we must continue with a methodology that treats pre-1990 forests differently from other emissions and removals.

What is the NDC in net:net terms using GHGI

[284] Dr Taylor calculates that a target of reducing *net* emissions by 50 per cent below *gross* 2005 levels by 2030, equates to a reduction of 22 per cent or 23.6 per cent

²⁷³ For example, Professor Forster, who is a leading author of the relevant chapter of the 2018 Special Report, says that to make a comparison with the IPCC global pathways a "standard accounting practice would use annual net missions similar to the Greenhouse Gas Inventory".

from *net* 2005 levels.²⁷⁴ Dr Reisinger uses a slightly different methodology, as well as updated removals data from the updated NDC, to make the same comparison. He calculates the *net* 2030 target as being about 35 per cent below *net* 2005 emissions. This is similar to Dr Taylor’s updated calculation of 32.1 per cent when keeping to his methodology but using the removals data from the updated NDC.

[285] Whichever one of these numbers is used, LCANZ’s point is that this contrasts with the New Zealand “headline” reduction of 50 per cent by 2030 in our updated NDC.²⁷⁵ LCANZ submits that an NDC that falls well short of the percentage reductions necessary by 2030 as per the IPCC pathways, from a country that has committed to take the lead, and is patently unreasonable when, as the Commission says in its Advice about the IPCC pathways:²⁷⁶

Within all these pathways, limiting warming to 1.5°C requires the world to rapidly reduce emissions of all greenhouse gases between now and 2030.

What are the budgets in net:net using GHGI

[286] LCANZ also says that the budgets do not meet their purpose of contributing to the 1.5°C goal. It says that on a net:net basis, using GHGI rather than MAB, our net CO₂ emissions will *increase* between 2010 and 2030. In support of this, Dr Taylor’s evidence is that:

- (a) Based on the data from the Advice, our net CO₂ emissions will increase during this period from 5.0 Mt to 20.7 Mt, an increase of 310 per cent.²⁷⁷
- (b) Based on updated removals data obtained from the updated NDC, our net CO₂ emissions will increase during this period from 5.0 Mt to 12.4 Mt, an increase of 145 per cent.

²⁷⁴ The difference being whether AR4 or AR5 is used.

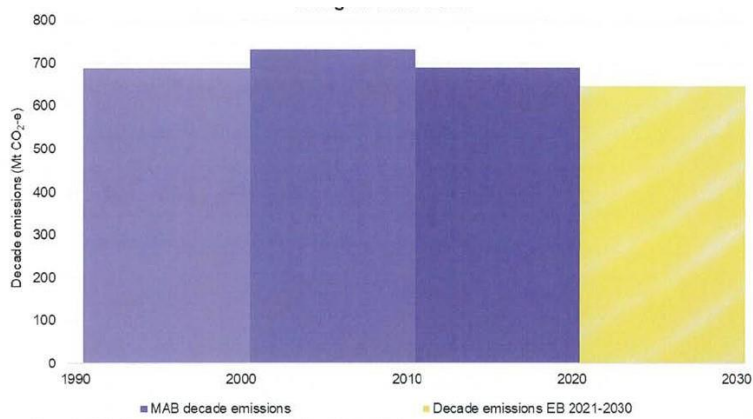
²⁷⁵ *Submission under the Paris Agreement: New Zealand’s First Nationally Determined Contribution Updated 4 November 2021*, above n 121.

²⁷⁶ Final Advice, above n 3, at 191.

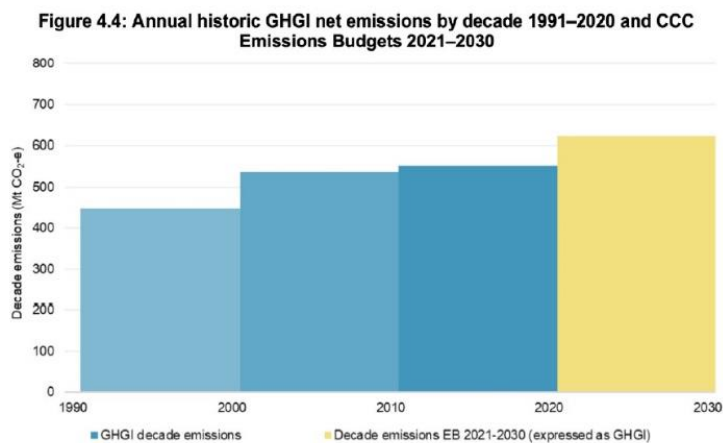
²⁷⁷ Similarly, Dr Stephen Gale, an economist and practical mathematician who filed an affidavit in support of LCANZ’s position, calculates that from a 5.048 Mt net CO₂, an IPCC global pathways compliant 2030 target would be 2.574 Mt. Professor Forster agrees with this evidence.

- (c) When looking at all greenhouse gas emissions, based on data from the Advice, the increase will be from 48.6 Mt to 58.2 Mt, an increase of 20 per cent.
- (d) When looking at all greenhouse gas emissions, based on the updated NDC, the increase will be from 48.6 Mt to 53 Mt, an increase of nine per cent.

[287] Dr Taylor contrasts the difference of our decade by decade emissions (covering historic emissions and the emissions budgets to 2030). Using MAB they look like this:



[288] Using GHGI net, they look like this:²⁷⁸



²⁷⁸ It is not in dispute that New Zealand’s emissions (gross and net) increased between 1990 and 2020. The largest increase was between 1990 and 1999 and the rate of decade growth has since stabilised.

[289] The difference between MAB and GHGI in terms of total quantity of CO₂e is not great between 2020 and 2030 (26 Mt). However, the important point from LCANZ's perspective is that the Commission's budget for this period show an increase in emissions rather than a decrease. This increase is what the atmosphere will actually see during this period (because that is what GHGI measures).

[290] LCANZ submits that it is irrational and unreasonable to propose budgets that would see net CO₂ emissions increasing over the next decade given the unprecedented risks that global warming poses for humanity and the critical role of reducing emissions by 2030. Further, the actions needed to achieve net zero CO₂ emissions by 2050 will be made more difficult and cumulative emissions will increase and contribute to global warming in the meantime. It submits the Budgets Advice, allowing this increase in emissions in the period to 2030, is patently unreasonable in the face of the climate emergency.

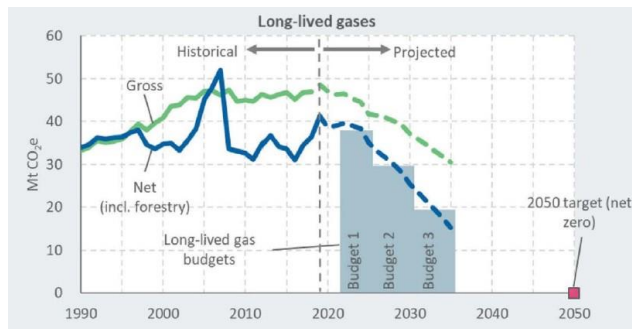
Commission's justification

[291] The Commission describes LCANZ's evidence as an "accounting trick". This is because all that LCANZ has done is put the tree cycle back into the mix as this is the effect of using GHGI rather than MAB. It says New Zealand has never used GHGI for setting its targets and measuring progress towards them and there is no sound basis for New Zealand to do so now.

[292] The Commission says that its Advice, if implemented (as it essentially was), reduces emissions for each budget period and, by the early 2030s, net CO₂ emissions will have reached the IPCC "rule of thumb" 50 per cent reduction from 2005/2010 emissions. On a gross:net basis CO₂ reduces to 55 per cent by 2033. On a net:net basis it reaches 50 per cent by 2033. Further, New Zealand's CO₂ domestic emissions will reach net zero by 2038, well before the IPCC goal of 2045–2050.²⁷⁹ These reductions are based on MAB.

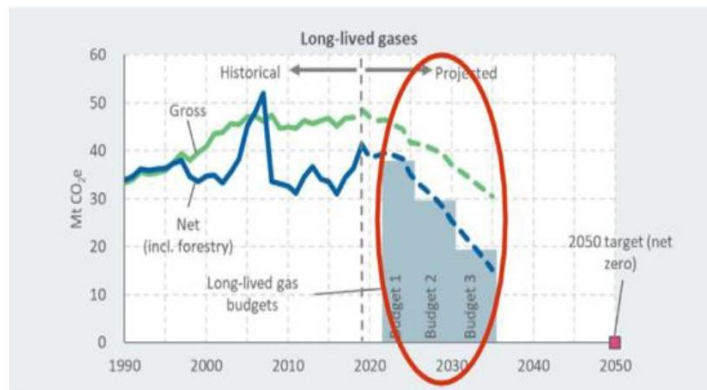
²⁷⁹ Final Advice, above n 3, at 193.

[293] The Advice illustrates the reduction in CO₂e emissions in the budgets with the following table:²⁸⁰

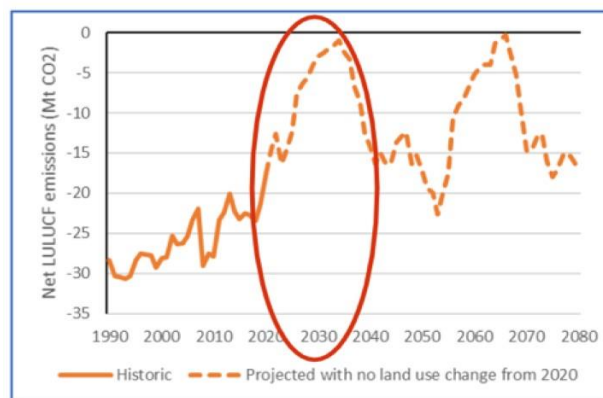


[294] The Commission illustrates the difference in this table and Dr Taylor’s table as follows:

(a) When this picture (the budgets):



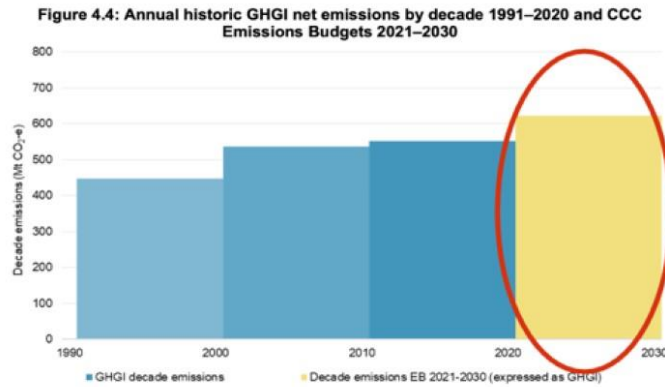
(b) is combined with this picture (the trees):²⁸¹



²⁸⁰ At 81.

²⁸¹ Affidavit of Renee Murray at [27].

(c) we get LCANZ's budgets that showing the *increase* in emissions:²⁸²



[295] That is, the downward budgets shown in the Commission's table at [293] combined with the tree cycle produces the yellow increase of emissions between 2020 and 2030 in the table at [288]. The choice of MAB rather than GHGI net alters whether our emissions will appear to have *increased* or *decreased* between 2021 and 2030 relative to the previous decade.²⁸³

[296] The Commission submits that LCANZ's approach lacks analytical integrity because it abruptly stops at 2030. In this period, as the graphic at [294(c)] shows, the tree cycle is on the upward swing. That is, while the trees are still a net source of removals, in the period between 2020 and 2030 they are capturing less CO₂. The tree cycle tops out at around 2030. After that, the cycle turns and removals increase at a sharp rate. In the twenty years that follow 2030, regardless of what New Zealand does or does not do in terms of climate action, our emissions profile will decline steeply by including the trees (that is, using GHGI) and reach zero carbon by 2050 by doing nothing.

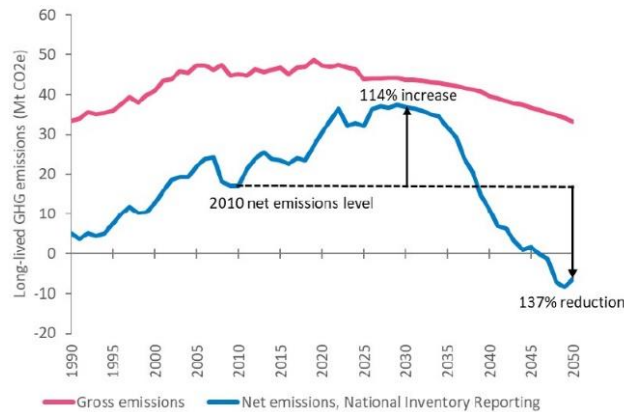
[297] This is illustrated by the following table:²⁸⁴

²⁸² Affidavit of Dr Taylor at [114].

²⁸³ Although the difference in the period between 2021 and 2030 as between MAB and GHGI is relatively small because there is only a small difference in MAB and GHGI net removals in this decade. As I understand it, there is a greater difference in MAB and GHGI net removals for earlier decades as Dr Taylor's table shows.

²⁸⁴ Affidavit of Paul Young at [48].

Figure: Percentage change in long-lived greenhouse gas emissions in 2030 and 2050 relative to 2010 in the Current Policy Reference Case under net-net national inventory reporting



[298] The Commission’s explanation for its approach has been set out earlier ([100] and [203]–[213]) and was discussed in the Consistency Advice ([120]). For present purposes, the following part of the supporting volumes to the Advice serves to make the main points for the Commission.²⁸⁵

Net-net accounting can be problematic for countries like Aotearoa whose net emissions are strongly influenced by a large area of production forests. Our forests have an uneven age class due to high planting rates over certain historic periods, causing large fluctuations in forest emissions over time ... This means that changes in net emissions between any two years can give a distorted view of the underlying long-term changes in forestry emissions. For example, if a country were at a harvesting peak or trough in the base year, net-net accounting would give an unjustified gain or loss.

Gross-net accounting therefore avoids the counting of gains or losses that are largely arbitrary effects due to the base year chosen. It also helps to track progress in relation to factors that can reasonably be influenced by human interventions now to reduce emissions or safeguard forest sinks, rather than the legacy effects of past decisions.

If viewed over the long term, production forests deliver no additional carbon sequestration benefits after the first rotation, as the carbon sequestered as they grow is emitted after they are harvested. Factoring out the emissions and removals from pre-1990 forests for accounting purposes therefore presents a more accurate picture of our efforts to reduce net emissions so long as the land remains used for forestry on an ongoing basis. However, if these pre-1990 forests are cut down and the land converted to a different use, the deforestation emissions are counted towards targets.

The gross-net approach also recognises that carbon removals by forests are qualitatively different to reductions in gross emissions. Removals by forests can compensate for a fixed amount of gross emissions at a given point in time, but do not reduce the ongoing production of gross emissions in the long term.

²⁸⁵ Supporting Evidence, above n 11, at [3.4.2].

In this way forests can temporarily offset gross emissions but can never be a permanent solution.

The Kyoto Protocol acknowledged the importance of reducing emissions at source and differentiated between situations where the land sector was a source or a sink of emissions in the base year. Where land was a source of emissions in the base year, the Kyoto Protocol required targets be set to reduce land emissions on the same basis as gross emissions (net-net). Where land was a net sink of emissions in the base year it recognised that forest sinks could only temporarily offset gross emissions, and so targets are set on the basis of gross emissions levels (gross-net).

Finally, the NDC for Aotearoa will use averaging to account for emissions and removals by post-1989 forests from 2021. This makes the distinction between gross-net or net-net accounting less of an issue. Averaging factors out fluctuations in net emissions by forests to an even greater extent than the Kyoto Protocol accounting used for previous targets. With averaging, the progress tracked is driven primarily by the areas of new forest planted and the amount of deforestation. If this accounting method were extended over forest emissions and removals for Aotearoa back through time, gross and net emissions at the start of 1990 would be the same.

[299] In short, the Commission recommended an accounting methodology that removes the cyclical effects of trees. It regards this as consistent with the Kyoto Protocol. The averaging component of MAB ensures that the credit New Zealand gets from a new forest represents the sustained and long-term overall reductions that the forest actually represents. Ensuing that only long-term sustained reductions in emissions (from new additional activities) are counted towards the NDC target and in measuring progress against the Budgets is in accordance with the concept of additionality.

[300] The Minister agrees with the Commission that the key feature of target accounting is additionality; that is, accounting for climate action in a way that is different to business as usual. The Kyoto Protocol set a baseline of 1990 and sought to incentivise additional climate action beyond that date, which would not otherwise have occurred. Target accounting is designed to incentivise emissions reductions and to avoid relying on actions that occurred before 1990 (such as forest planting in the 1970s and 1980s for entirely non-climate change related reasons) that continue to result in emissions and removals for today. MAB accounting is a variation on the target accounting New Zealand has been using since 2008.

[301] Similarly, Dr Brandon explains:²⁸⁶

Applying MAB 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 decision to exclude business-as-usual net emissions from pre-1990 forests in accounting for our emissions reductions targets meets a key principle that is fundamental to driving climate action, that of additionality. ...

Additionality is a key criterion that helps to maintain the environmental integrity of the Paris Agreement. Additionality is achieved when GHG emissions abatement benefits are over and above those that would have arisen anyway.

[302] Dr Bertram responds that New Zealand's record under the Kyoto Protocol has had the opposite effect of incentivising changed behaviour. He points out that, having "secured a licence" under the Kyoto Protocol to make its commitment in gross:net terms, New Zealand was thereafter able to meet its commitments in 2008–2012 and 2013–2020 almost entirely relying on its growing forests, with no serious effort to change behaviour in relation to gross emissions. Dr Bertram goes on to acknowledge, as does Dr Taylor, that after 2030 the MAB approach (as compared with net:net GHGI), would mean greater stringency based on current projections – as illustrated by the blue line after 2030 in [207] and [297] above.²⁸⁷

[303] LCA NZ says that the primary issue with MAB is the time it is being introduced. Introducing it now makes it much easier to meet the NDC commitment (claiming falling net emissions when in fact GHGI net emissions will be rising over this period). There is then the risk of a "flip-flop" when GHGI net shows a dramatic fall in emissions – the blue line after 2030 in [207] and [297] above. In other words, it will not be a durable and politically feasible metric for tracking New Zealand's emissions.

²⁸⁶ Affidavit of Dr Brandon at [51], [58.2] and [58.3].

²⁸⁷ Reply affidavit of Dr Bertram at [57] and [71].

[304] In assessing the respective positions, the first point is that I do not accept the Commission’s submission that LCANZ’s evidence is an “accounting trick” or that it lacks “analytical integrity”. It is unarguable that the timing of emission reductions matters, that the “rule of thumb” for keeping warming to 1.5°C is a 50 per cent reduction by 2030, and our NDC is a commitment that relates to 2030. New Zealand’s net emissions at 2030 are therefore a highly relevant consideration. GHG is the best measure of what the atmosphere will actually see in the decade to 2030.

[305] Nevertheless, I consider that the Commission has sufficiently justified on the evidence and its reasoning its choice of accounting methodology. Professor Forster acknowledges New Zealand’s emission profile of small fossil CO₂ emissions, a large forest sink and large biogenic methane is “very different” from the global average.²⁸⁸ While saying that New Zealand’s reduction target for 2030 does not align with the global 1.5°C goal, he does say that “[o]verall I found [the Commission’s] justifications to be well argued and I accept both approaches [gross:net and MAB] as being reasonable”. On a MAB approach, New Zealand’s CO₂ domestic emissions will reach net zero by 2038, well before the IPCC goal of 2045–2050. In GHGI terms, New Zealand’s contribution may not match the IPCC global pathways at 2030 but it will do better than those pathways in fairly short order after that.

Is this consistent with contributing to the global 1.5°C goal?

[306] It is important to keep in mind that Parliament did not require that New Zealand meet a 2030 target. Despite submissions to the select committee seeking a 2030 target, requiring reductions of 45 to 40 per cent by 2030, this was not taken up in any amendment to the Bill. Parliament decided on a 2050 net zero. It established the Commission to provide advice on what the pathway to 2050 should be via a series of emissions budgets.

[307] In light of the statutory scheme, it was reasonably open for the Commission not to mirror the IPCC global pathways. Contributing to the 1.5°C global temperature goal was one of the purposes of the statute and a very important consideration, but the manner of that contribution was not fixed to those pathways. Relevant to

²⁸⁸ Professor Sims provides further details about this.

New Zealand's contribution is our unusual emissions profile and the swamping effect of the cyclical tree cycle. The Commission, the expert body tasked with considering this, formed the view that our appropriate contribution was one that made less of a contribution to that goal up to 2030 (in GHGI terms) but a contribution that was better than the IPCC global pathways in a short time thereafter. It made the decision that a stable policy, not swamped by the cyclical effects of trees, would best drive behavioural changes necessary to respond to the climate emergency. Moreover, emissions budgets are not the only contribution New Zealand will make to global efforts to combat climate change. New Zealand's NDC includes extensive offshore mitigation to emissions reductions.

Sufficiently ambitious?

[308] One of the criticisms of the Commission's assessment of the relevant considerations is that it did not carry out a cost benefit analysis of different levels of ambition. Dr Taylor accepts that it is not possible to quantify all benefits and costs of different levels of ambition. He says that what could be quantified, should have been, to enable for more informed decision making.

[309] A related point is that LCANZ submits the Commission should have carried out an analysis of the cost of offshore mitigation. While the Commission assessed the costs of a more ambitious NDC, it did not assess whether additional domestic mitigation will be cheaper than offshore mitigation. The answer to this is found in the Commission's Advice. It carried out a qualitative assessment where emissions budgets were set at the level of the NDC. It considered the impact of doing so would be unmanageable.²⁸⁹

[310] I accept that quantification models can assist with decision making but it is just one method of analysis. The Commission's process and analysis was extensive. Balancing ambition with other relevant factors is quintessentially poly-centric. Absent a clear and material error in the analysis or the information relied on by the Commission, which has not been identified, there is no proper basis for this Court to conclude that the Commission's analysis has erred. The mathematical error relied on

²⁸⁹ Final Advice, above n 3, at 364.

by LCANZ might have been such an error, but it was not established and did not affect the Minister's understanding of the Advice. The absence of a (partial) quantitative analysis of various levels of ambition falls far short of establishing that the Commission's advice as to the level of ambition was unreasonable.

Unreasonable not to do more?

[311] In a range of ways, the affidavits for LCANZ compare New Zealand's contribution with contributions measured on other equity principles. For example, Dr Bertram points out that of the seven equity principles by which our contribution to the 1.5°C global goal is measured in the Consistency Advice ([122] above), the gross:net approach recommended by the Commission is by far the least ambitious.²⁹⁰ Professor Ralph Sims refers to the Yale Centre for Environmental Law & Policy which shows that New Zealand ranks 166th out of 180 countries when ranked from lowest to highest per capita emitters. In terms of historic cumulative emissions per capita CO₂ analysis by Carbon Brief, from 1850 to 2021 New Zealand is one of the highest emitters.²⁹¹ Dr Rogelj refers to a recent peer-reviewed study that estimates that New Zealand's internationally fair contribution to a global pathway that would keep maximum global warming below 1.7°C implies at least a 67 per cent reduction in net:net emissions by 2030 relative to 2010.²⁹²

[312] Ultimately, however, Parliament tasked the Commission with recommending budgets in accordance with the statutory considerations it set out. Those considerations include: what is technically and economically achievable; the distribution of those impacts across the regions and communities of New Zealand and from generation to generation; the economic circumstances and the likely impact of the Minister's decision on taxation, public spending, and public borrowing; the implications, or potential implications, of land-use change for communities, and the responses to climate change taken or planned by parties to the Paris Agreement or to the Convention. Some or many of these factors could point away from a contribution that met or exceeded the IPCC pathways by 2030. Taking into account all the relevant considerations, the Commission concluded that more ambitious targets would mean

²⁹⁰ Reply affidavit of Dr Bertram at [64].

²⁹¹ Reply affidavit of Professor Sims at [10].

²⁹² Affidavit of Dr Rogelj at [12].

transitioning faster than real-world constraints for deploying technology, developing supply chains, infrastructure and markets would allow and would have significant consequences. It also concluded that meeting the NDC solely through domestic action would be highly challenging and risk severe impacts.

[313] Ultimately, a reasonable decision depends on what Parliament tasked the decision maker to decide. Parliament did not task the Commission with a particular model by which to recommend budgets that would contribute to the 1.5°C global goal. I am not satisfied that LCANZ has shown that the Commission's Advice fell outside its statutory task to provide Advice consistent with the purpose of the Climate Change Response Act. Its Advice was driven by the need for clear and stable climate change policies that would meet net zero by 2050 and would contribute to the 1.5°C global goal. It did not act unreasonably or irrationally. I accept that MAB was chosen to provide a stable accounting method, intended to drive changes that would lead to emissions reductions in ways above and beyond relying on existing forestry removals. Any opportunistic change when GHGI removals exceed MAB removals will no doubt be met with challenge should that be contemplated at some future point.

Result

[314] The judicial review application is dismissed.

[315] If there are any questions as to costs, the parties may submit brief submissions (seven pages) within three weeks of the date of this judgment. I note that the Commission was critical in a number of respects about LCANZ's position and approach. It may be helpful for the Commission to be aware that I saw no real merit in that criticism. The Commission's task is a very important one. Professor Donald Wuebbles describes climate change as "not only quickly developing into the most important issue of our time, but perhaps the most important issue humanity has ever faced". Judicial review provides an important check on this very important statutory task vested in the Commission. Challenge and debate can lead to better outcomes. Unsuccessful challenges can bring with it the public benefit of legitimacy to the Commission's work.