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INTRODUCTION AND SUMMARY

1. The substantive issue underlying this appeal is ‘how fast’?: LCANZ’ view is that the Commission’s Advice was not sufficiently ambitious and New Zealand needs to cut its emissions faster. ‘How fast’ was however *the* central question for the Commission’s Advice:¹

Our key decision in recommending the level of these [first three] budgets is how quickly Aotearoa should act to deliver emissions reductions. Acting too slowly pushes the burden of addressing climate change on to young people and future generations. Acting too quickly increases the transition cost, for infrastructure and asset replacement, and can have unintended consequences for people, society and the economy.

... A key challenge for the Climate Change Commission in preparing this advice has been to strike a balance between pushing too hard to ‘catch up’ after years of delay, while also acknowledging that adjusting course after years of minimal action requires hard work.

... The world, including Aotearoa, needs to reduce emissions as quickly as possible to limit warming to 1.5°C and reduce the severity of climate change impacts... However, there are constraints as to how quickly low-emissions technologies will come into the country, [and] solutions can be tailored to the Aotearoa context ... it takes time to develop supply chain, markets and infrastructure. We must strike a balance that looks for equity across generations so that future generations inherit a thriving, climate resilient and low-emissions Aotearoa.

2. The Commission’s consideration of this key question was a complex multifaceted assessment involving numerous judgements and judgement calls across a vast array of current and future looking technological, scientific, industrial, economic, social and cultural topic areas, with high level of uncertainty and major issues of distributional justice across regions and communities and between generations. The Commission concluded that *starting out* with the deeper cuts and faster pace of change of the kind proposed by LCANZ would have a range of unacceptable consequences, including potentially catastrophic (and in real terms unnecessary) impact on communities – particularly rural and Māori communities – and the economy.²
3. The Commission’s substantive assessments on this central question are not before the Court in an application for judicial review. This is not a merits appeal of whether the Commission ‘got it right’. LCANZ instead must show an error of law by the Commission: the essence of LCANZ’ case here being that the Climate Change Response Act 2002

¹ Advice **COA 401.0001** at [[401.0080]]–[[401.00802]], and in detail throughout the Advice, in particular in Chapter 5: **COA 401.0001** at [[401.0080]]–[[401.0105]].

² Chapters 7 and 8 of the Advice **COA 401.0001** beginning at [[401.0118]]; and [[401.0158]]; Box 5.4 at [[401.0095]]; and Box 22.1 at [[401.0384]].

required a different outcome, and/or that the Commission’s conclusions were so outrageous as to be outside the boundaries of what the Act permits. Justice Mallon rejected each ground of challenge, and the Commission supports that result.

4. As is apparent from its submissions, all of LCANZ’ challenges centre on claims about climate change accounting methodologies. Climate change accounting is a highly specialised international discipline that has evolved over decades.³ It is important to recognise that its complexities are not something that can be ‘nutted out’ by lay persons (lawyers or otherwise) on the basis of intuitive reasoning, and there is a real risk of falling into unrecognised error and misconceptions in attempting to do so.
5. The Court must also start from the position that the expert Commission and its expert advisors are competent in this field.⁴ While of course expert bodies can make mistakes, where there has been a process such as that followed for this Advice (with extensive stakeholder engagement and release of a draft for consultation) it is unlikely that genuine errors would have been carried through to the final Advice. Propositions that the Commission has substantively misunderstood matters within its expertise, or that its expert assessments are “nonsensical” and “fly in the face” of reason as LCANZ asserts,⁵ are even more unlikely and should be approached with some caution.⁶
6. One matter of substance must be addressed at the outset. LCANZ is not correct when it claims⁷ that the Budgets would fail to put New Zealand on track to reduce emissions in line with the 2018 IPCC Special Report pathways, often expressed as the ‘rule of thumb’⁸ of a 50% reduction in net CO₂ emissions by 2030. LCANZ refers to Justice Mallon’s

³ Glade generally **COA** at [[201.0098]], and for reference to some of the core international published guidance at [40], fn 8 [[201.0105]]. Walter generally **COA** at [[201.0074]]; Smith at [29]–[55] **COA 201.0140** at [[201.0149]]–[[201.0156]]; and Murray at [32]–[59] **COA 201.0249** [[201.0230]]–[[201.0238]].

⁴ Hendy **COA 201.0119** at [[201.0127]]–[[201.0132]].

⁵ LCANZ submissions at [16(a)] and [160].

⁶ “A reviewing court should be very slow to conclude that the expert and experienced decision-maker assigned the task by statute has reached a perverse scientific conclusion.” *R (Mott) v Environment Agency* [2016] EWCA Civ 564, [2016] 1 WLR 4338 at 4339.

⁷ LCANZ submissions at [7], [11(c)] and [16(b)].

⁸ As the Commission recorded in its Advice the ‘rule of thumb’ of halving emissions by 2030 is an oversimplification: “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”: **COA 401.0001** at [[402.0211]]. It is also important to be clear that this ‘rule of thumb’, like the IPCC’s modelling, is *global* and not intended to be ‘applied’ to domestic emissions budgets: see paragraph 152 and fns 185 and 186 below.

summary at [11(d)], but her Honour records the correct position at [293] and [305].⁹ If fully implemented, the recommended Budgets would see:¹⁰

6.1 net CO₂ emissions reaching the IPCC ‘rule of thumb’ of a 50% reduction from 2010 emissions by the early 2030s, whether measured on a net:net or gross:net basis;

6.2 CO₂ emissions will reach net zero by 2038, well before the IPCC goal of 2045 – 2055.

7. While both of these are expressed in modified activity-based (MAB) accounting terms, as Justice Mallon notes at [305] LCANZ’ own most qualified witness (Professor Forster) accepts MAB accounting as a valid approach.¹¹ As her Honour goes on to record, even on the greenhouse gas inventory approach (GHGI) advocated for by LCANZ: “New Zealand’s contribution may not match the IPCC pathways at 2030 but will do better than those pathways in fairly short order after that.”¹²

8. The Commission’s response to LCANZ’ appeal is, in summary:

8.1 In relation to the Budget Advice: the Commission did not misinterpret the statutory purpose nor fail to have regard to it; Parliament did not prescribe GHGI accounting (and in any event this would make no difference to the level of ambition in the budgets, only its numerical presentation); and the Commission’s proposed budgets are not unreasonable.

8.2 In relation to the NDC Advice: the only pleaded ground of review is logical or mathematical error in the modelling used to inform the Advice on the NDC, which has not been established. LCANZ in its written submissions now asserts this alleged error affects the Budgets also, but this is not correct as a matter of fact (the gross:net vs net:net issue has no relevance to setting the Budgets, which are not set on a comparative basis). Nor was this allegation pleaded and as a result was not addressed in evidence in the High Court.¹³

⁹ High Court at [11(d)], [293] and [305] **COA 05.0012** at [[05.0017]], [[05.0113]] and [[05.0118]].

¹⁰ See paragraph 99 below.

¹¹ High Court at [305] **COA 05.0012** at [[05.0118]]; and Forster **COA 201.0007** at [[201.0009]]. Also Glade at [67]–[94] **COA 201.0098** at [[201.0112]]–[[201.0118]].

¹² High Court at [305] **COA 05.0012** at [[05.0118]].

¹³ 2ASOC “Ground 1: Logical Error in Application of the 2018 Special Report” is expressly limited to the NDC Advice: see [81], [94]–[94B] **COA 101.0144** at [[101.0156]] and [[101.0158]], and the alleged error is not pleaded in Grounds 2, 3 or 4 relating to the Budgets.

9. The Commission in addition records that LCANZ' written submissions substantively misrepresent the Commission's Advice, the evidence of its witnesses and the arguments it advanced in the High Court. LCANZ also overstates aspects of its own evidence, and incorrectly presents a number of key findings in the Judgment.
10. The Commission has filed a notice to support the High Court Judgment on other grounds. Three of those grounds are specific to the High Court's consideration of the NDC Advice and are addressed in that context. The other three have wider implications for future challenges: the extent to which the Advice is reviewable; the standard of review; and the admissibility of ex-post expert evidence. These are addressed next.

PRELIMINARY ISSUES (NOTICE OF SUPPORT ON OTHER GROUNDS)

'Other ground' 1: the extent to which the content of the Advice is reviewable

11. The Commission submits that the content of its Advice providing recommendations to inform decision making by the Minister is not by itself separately justiciable under the Judicial Review Procedure Act 2016 (**JRPA**), or in the alternative that the scope for review is narrow.¹⁴
12. This is not to suggest that the Commission is 'above the law' or that its actions are never subject to the supervisory jurisdiction of the Court. Rather, it is to invite the Court to be deliberate in its assessment of which functions and actions of the Commission fall within the scope of the JRPA and what the appropriate scope of review should be in the particular context.¹⁵ This is a matter of practical importance to the Commission given the contentious nature of its work, its significant statutory work programme, and the impact on that of the diversion of finite staff resources to respond to wide ranging challenges of the present kind.
13. Justice Mallon ruled that the Advice by itself is "the exercise of a reviewable statutory power"¹⁶ within the scope of the s 5 of the JRPA. Her Honour does not appear to have taken the view that the Advice constituted the exercise of a statutory power of decision as defined in s 4.

¹⁴ Commission's notice of intention at [2.1] **COA 05.0007** at [[05.0008]].

¹⁵ Other aspects of the Commission's work would be more clearly subject to judicial review: for example, process decisions affecting the consultation rights of others. The Commission's stand-alone public reports holding the government to account on progress *might* be found to fall within the JRPA by analogy to the reports of Commissions of Inquiry: eg *Peters v Davidson* [1999] 2 NZLR 164 (although noting this Court's discussion of the limitations of this approach in *Ririnui* at [32], see fn 22 below): that is a matter for another day.

¹⁶ High Court at [68] (**COA 05.0012** at [[05.0036]]).

14. The Commission submits that while the JRPA definitions are wide and intended to be broadly construed,¹⁷ they are nonetheless statutory definitions that must be given some meaning. With respect to her Honour, the Commission’s Advice in the present context does not fit within any of the things described in s 5(2). The fact that the Advice is of significant public interest, and intended by the statutory regime to inform and have influence on government policy, does not change its nature.
15. The Commission relies on the following cases in support of its position.¹⁸
16. *Christchurch City Council v Attorney-General*: the High Court struck out an application for judicial review of a report prepared for Cabinet by a government appointed committee, the Roding Advisory Group, on the basis that the report was outside the scope of judicial review as it “does not directly affect the rights of New Zealanders and has no more than the potential to do so if ultimately after the necessary processes [by the executive] have taken place, it is translated into [a decision].”¹⁹
17. *Milroy v Attorney General*: the Court of Appeal rejected a challenge to advice by officials to their Minister relating to proposed legislation, recording:²⁰

Immediately after the hearing began in this Court the case for the appellants ran into difficulties. The emphasis by counsel at the outset on the advice of officials rather than on any reviewable decision or decisions ... was said to reflect the way the case had been run before the High Court. There being no statutory power of decision within the Judicature Amendment Act 1972, counsel was asked to identify the common law prerogative writ being sought. He contended that there is at law a duty on officials to advise according to law, which duty is enforceable by mandamus, or, alternatively, declaration. He submitted further that the appellants’ case should be seen as a conventional attack on orthodox judicial review grounds on the process leading up to

¹⁷ *Wilson v White* [2005] 1 NZLR 189 (CA) at [22], referring to the equivalent section in the Judicature Amendment Act 1972.

¹⁸ It is also noted that despite the current prevalence of climate change cases in the UK, as far as counsel has been able to ascertain there are no cases where judicial review has been entertained against the UK Climate Change Committee, which has an equivalent function to this Commission. The closest case appears to be *R (Plan B Earth) v Secretary of State for Business, Energy and Industrial Strategy* [2018] EWHC 1892 (Admin) where judicial review was sought of the Minister’s decision, including on the basis that the Minister and the Climate Change Committee (in its advice to the Minister) had misunderstood the Paris Agreement. The Committee was named as an interested party. The High Court declined leave for the judicial review to proceed, and the Court of Appeal confirmed that result: *R (Plan B Earth) v Secretary of State for Business, Energy and Industrial Strategy* [2019] C1/2018/1750 (Civ).

¹⁹ *Christchurch City Council v Attorney-General* [2005] NZAR 543 (HC) Gallen ACJ at 552–553. On appeal the Court of Appeal found there was no error of law in the report and considered it unnecessary to engage in the question of justiciability, as “Even if there is here something amenable to intervention by the Court, we can see no tenable basis for such intervention ...”: *Christchurch City Council v Attorney-General* [2005] NZAR 558 (CA) at 561. See also *New Zealand Maori Council v Attorney-General* [1996] 3 NZLR 140 (CA) at 160.

²⁰ *Milroy v Attorney General* [2005] NZAR 562 (CA) at [10]–[12], citations omitted.

the minister's involvement and her decision making.

... counsel was driven to accept that the provision of advice in issue does not affect the rights of any persons or even have the potential to do so. It is the resulting legislation and Executive acts in accordance with it that will have that impact...

18. *Attorney-General v Ririnui*: the Court of Appeal followed the same approach as *Milroy* in overturning the High Court's decision that there was jurisdiction to separately review the advice provided by the Office of Treaty Settlements to Landcorp and the relevant Ministers.²¹ In the Supreme Court the focus of the case had shifted from whether the advice from officials in OTS was unlawful,²² but the majority confirmed that such advice is not separately justiciable, stating:²³

As Mr Goddard QC submitted for the Crown, the fact that advice given by an official or an agency is erroneous (whether in law or in fact) does not mean that the official or agency has acted unlawfully. What is important is (a) whether a decision is made or a power is exercised on the basis of the erroneous advice and (b) whether those decisions are reviewable, a matter to which we now turn.

The High Court's reasoning

19. Justice Mallon relies on *New Zealand Climate Science Education Trust v National Institute of Water and Atmospheric Research Ltd* where Venning J expressed the view:²⁴

... NIWA is a public body established by statute [a Crown Research Institute], with its shares held by Ministers who are both responsible to the House of Representatives and ultimately to the electorate. NIWA carries out its research functions for the benefit New Zealand. Because the findings of research undertaken by NIWA may be used in developing Government policy, NIWA's actions have the potential to adversely affect the rights and liabilities of private individuals.

²¹ *Attorney-General v Ririnui* [2015] NZCA 160 at [25]–[34], the reference to *Milroy* is at fn 21.

²² The focus in the Supreme Court was on was that the errors in the advice had materially affected the consequent decisions of the Ministers and Landcorp: *Ririnui v Landcorp Farming Ltd* [2016] NZSC 62, [2016] 1 NZLR 1056: Elias CJ and Arnold J at [35]–[39] and further at [56]–[63] explain how those issues were derived from the pleadings, following which the claim challenging the official's advice is discussed no further. O'Regan J dissents on that approach to the pleadings, holding that the challenge to the officials' advice cannot be extended to a challenge to the Ministers' decisions based on it, but does not otherwise consider the separate claim relating to the advice (see at [154] and [169]–[175]). William Young J at [194] records a tentative view (without discussion of the Court of Appeal's decision) that on the facts of the case, "going perhaps a bit further than Elias CJ and Arnold J" he would be "inclined to think that the OTS assessment would have warranted proceedings under the Declaratory Judgments Act 1908 and would, in that practical sense, have been reviewable." See also the confirmation by the Supreme Court in *Ngati Whatua* that the courts will not be drawn into the examination of the accuracy and completeness of the advice of officials in forming government policy where no rights were affected: *Ngati Whatua Orakei Trust v Attorney-General* [2018] NZSC 84, [2019] 1 NZLR 116 at [36]–[40].

²³ At [55], [147] and [150].

²⁴ *New Zealand Climate Science Education Trust v National Institute of Water and Atmospheric Research Ltd* [2012] NZHC 2297, [2013] 1 NZLR 75 at [27] (footnotes omitted).

20. Venning J concluded that NIWA’s *publication*²⁵ of revised data on changes in sea temperatures (which the applicants alleged were scientifically incorrect) was the exercise of a statutory power of decision and amendable to judicial review.²⁶
21. Respectfully, Venning J’s conclusion that the publication of data by a Crown Research Institute is amenable to judicial review is outside even the broadest tenable interpretation of ss 4 and 5 of the JRPA. However, it does not appear that the point was fully argued or that his Honour’s attention was drawn to the contrary authorities.²⁷
22. Nor is Venning J’s analysis applicable to the Commission’s Advice even on its own terms. Venning J relied heavily in his assessment on the level of control exercised by its shareholding Ministers over the operations of a Crown Research Institute,²⁸ while the Commission here is notably in the opposite position in terms of statutory independence.²⁹
23. Justice Mallon also draws on case law relating to the justiciability of preliminary decisions, referring specifically to *Singh v Chief Executive of MBIE* and *Mercury NZ Ltd v Waitangi Tribunal*.³⁰ Respectfully, that analogy is not apt. Preliminary *decisions* by the *same decision-maker* are conceptually different from advice from a separate and independent source that comprises only one input to the eventual decision. Further, those cases make it clear that judicial review of preliminary decisions will be exceptional,³¹ and unlikely to be available where there are further opportunities in the statutory process to correct any apparent error, including the availability of judicial review of the final decision.³²

²⁵ At [11].

²⁶ This appears to be inherent in his conclusion at [27].

²⁷ See discussion at [20]–[27].

²⁸ See at [20]–[27].

²⁹ CCRA ss 5O, see also 5B – 5I.

³⁰ *Singh v Chief Executive Ministry of Business, Innovation and Employment* [2014] NZCA 220, [2014] 3 NZLR 23; and *Mercury NZ Ltd v Waitangi Tribunal* [2021] NZHC 654, [2021] 2 NZLR 142. *Mercury* was appealed directly to the Supreme Court which issued its decision in the month following Mallon J’s judgment: *Wairarapa Moana Ki Pouākani Inc v Mercury NZ Ltd* [2022] NZSC 142, [2022] 1 NZLR 767. The question of whether the preliminary decision of the Tribunal was properly subject to review appears not to have been the subject of the appeal (see [11]), although O’Regan J notes in passing at [212] that: “one of the reasons given by the High Court Judge for deciding to allow the judicial review application to proceed despite the preliminary nature of the Tribunal’s decision was that the Tribunal had reached “firm conclusions”. I agree.”

³¹ See *Singh* at [35]–[40]; or “out of the ordinary” *Mercury* (HC) at [21].

³² *Singh* at [38]–[39].

24. Notably, Justice Mallon also does not acknowledge that in both the authorities on preliminary decisions³³ and in *NIWA* itself,³⁴ the courts have emphasised that even where judicial review is available, it will generally be narrowly confined.

The Commission's position

25. The Commission respectfully submits that there are sound reasons why the content of its advice and recommendations to the Minister is not amenable to judicial review on a stand alone basis, whether that is seen as a jurisdictional limit or the exercise of judicial restraint. The Advice is only advice, and while intended to be highly influential is only part of the matrix of the Minister's subsequent statutory decision-making. The Minister receives advice and input from other sources, including about whether to follow the Commission's Advice.³⁵ The statutory regime also makes it clear that the Minister is expected to bring to the final decision-making the democratically accountable interests of the government of the day: these are additional factors that will inform the final decisions, that are expressly not within the Commission's purview.³⁶ The Minister's ultimate decisions are of course subject to judicial review.
26. Even by analogy to preliminary decisions, these factors point strongly against the Court engaging in review of the substantive content of Commission's Advice.

³³ See for example the cases discussed in *Mercury* (HC) at [15]–[17].

³⁴ *NIWA* (HC) at [36]–[48]. *NIWA* was appealed, but the appeal was abandoned during the course of argument. The Court of Appeal in its costs judgment confirmed that it agreed with Venning J's refusal to adjudicate on the scientific dispute (the court records that it was this firm agreement expressed during the course of argument that led to the appeal being abandoned): *New Zealand Climate Science Education Trust v National Institute of Water and Atmospheric Research Ltd* [2013] NZCA 555 at [8]–[9] and [14]. See also following *NIWA, Re Lee* [2017] NZHC 3263, [2018] 2 NZLR 731 at [93]. Noting some commentators advocate for an even narrower approach to judicial review of scientific work: see Marcelo Rodriguez Ferrere "Judicial Review of Scientific Findings" [2012] NZLJ 380 (cited with apparent approval by White J (in dissent but not on this issue) in *New Zealand Pork Industry Board v Director-General of The Ministry of Agriculture And Forestry* [2013] NZCA 65 at [104], fn 23); and Laura Hardcastle "Can't See the Science for the Solicitors: Judicial Review of Scientific Research in Light of *Niwa's Case*" (2014) 12 NZJPI 291.

³⁵ As illustrated by the process followed by the NDC advice, where the the Minister received extensive advice from the Ministry for the Environment (MfE) – including advice that critiqued the Commission's Advice: MfE *Consistency of NDC1 with efforts to limit global warming to 1.5 °C* (10 June 2021) **COA at** [[301.0153]]; MfE *Supporting paper – methodologies for defining and accounting for New Zealand's NDC1* (15 June 2021) **COA at** [[301.0180]]; MfE *Accounting choices for CCRA Budgets and NDCs* (5 May 2021) **COA at** [[301.0482]]; and MfE *NDC comparability COA at* [[301.0496]]. The Minister also received submissions from interested parties, including LKANZ (Hendy at [76] and [79] **COA 201.0119** at [[201.0134]] and [[201.0135]]). See also CCRA, ss 5ZB, 5ZE(4)–(7).

³⁶ See for example, MfE *Departmental Report on the Climate Change Response (Zero Carbon) Amendment Bill 2019* (September 2019) [**Departmental Report**] which affirmed that the CCRA was designed to make clear that: "the Minister is the decision-maker. Given the wide-ranging impacts that decisions on emissions budgets are likely to have... it is appropriate for the Minister, a representative of the elected government, to make these decisions" at 85.

27. Judicial review of the Advice in the very broad terms of the present case is also of questionable utility. It is not actually relevant to the lawfulness of the NDC or the Budgets whether the Commission has acted reasonably or met the statutory purposes in the judgements it makes, *so long as the Minister does so in the judgements he makes*. In this context similar concerns to those noted by the Court of Appeal in *Singh* apply with some force to the Commission, given the concerns noted above:³⁷

... 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.

28. With respect to her Honour's observations that judicial review is beneficial by providing challenge and debate and in adding legitimacy to the Commission's work,³⁸ this is not the function of the Court's supervisory jurisdiction. Parliament has provided for robust processes for challenge and debate within the statutory framework. The Court's concern must be only with the lawfulness of the decisions and actions then taken.

'Other ground' 2: the standard of review

29. The Commission submits that Justice Mallon erred in adopting "a more exacting standard than *Wednesbury* unreasonableness" involving:³⁹

...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 decision makers could reach different decisions.

This is close to a merits review of the Advice.

30. As noted, Justice Mallon does not address the contrast between this approach and the recognition in the 'preliminary decision' and *NIWA* cases (relied on to support the Advice being justiciable at all) that even where judicial review is available in such cases, its scope should be confined.

31. Justice Mallon relies on this Court's endorsement of her earlier adoption of a 'hard look' approach in *Kim v Minister of Justice of New Zealand*, suggesting that its availability is now established law.⁴⁰ However, while this Court was clearly comfortable with adopting that approach to the intensity of review in the circumstances of that case, it had not

³⁷ *Singh* at [39].

³⁸ High Court at [315] **COA 05.0012** at [[05.0121]].

³⁹ High Court at [75]–[76] **COA 05.0012** at [[05.0039]].

⁴⁰ *Kim v Minister of Justice of New Zealand* [2019] NZCA 209, [2019] 3 NZLR 173 on appeal from *Kim v Minister of Justice* [2017] NZHC 2109, [2017] 3 NZLR 823.

been the subject of argument but rather had been accepted as common ground.⁴¹ The Supreme Court's explicit reservation of the point is notable in that context.⁴²

32. As this Court more recently observed, the concept of variable intensity of review is far from well-established:⁴³

We acknowledge that New Zealand courts have been reluctant to engage in the academic debate over standards of review, usually because of scepticism as to whether different approaches make a difference to the practical outcome of cases. There are cases in which courts, including this Court, have endorsed relatively intense review in cases involving issues of fundamental human rights [citing *Kim*]. We take that to be a signal of the attention and care with which the courts should approach such issues.

This case [involving professional disciplinary processes] is not the place to resolve the wider academic debate, if that is possible.

33. Recent decisions in the High Court have expressly rejected the concepts of heightened scrutiny or variable intensity of review, including in the specific context of climate change litigation.⁴⁴ The Commission respectfully endorses the approach by Cooke J on the role of the court in such cases in *Students for Climate Change Solutions Inc v Minister of Energy and Resources* where his Honour emphasised: "the key point is that the Court identifies and then ensures compliance with the requirements of the law."⁴⁵

34. There is a further reason why Justice Mallon's approach of a near merits review is problematic in the present case. Cases such as *Kim* involve an individual's human rights (including in that case those relating to torture and fair trial), and the protection of such rights is quintessentially within the constitutional competency and traditional role of the courts.⁴⁶ The concept of the court acting as arbiter and final decision-maker on the

⁴¹ *Kim v Minister of Justice* (CA) at [45]–[47].

⁴² *Minister of Justice v Kim* [2021] NZSC 57, [2021] 1 NZLR 338. See also more recently *Auckland Council v C P Group Ltd* [2023] NZSC 53, [2023] 1 NZLR 35 at [89] and [96].

⁴³ *Kamal v Restructuring Insolvency and Turnaround Assoc of New Zealand Inc* [2021] NZCA 514, [2021] NZCCLR 23; *Idea Services Ltd v Attorney-General* [2022] NZCA 470, [2023] 2 NZLR 389 at [54].

⁴⁴ See for example *New Zealand Council of Licensed Firearms Owners Inc v Minister of Police* [2020] NZHC 1456 at [80]–[83]; *Mercury NZ Ltd v Waitangi Tribunal* [2021] NZHC 654, [2021] 2 NZLR 142 at [64]–[67]; *Tesimale v Manukau District Court* [2021] NZHC 2599 at [95]–[96]; *X and Y v Chief Executive, Oranga Tamariki* [2021] NZHC 2449 at [193]; *Financial Services Complaints Ltd v Chief Parliamentary Ombudsman* [2021] NZHC 307, [2021] 2 NZLR 475 at [70]–[71]; *Students for Climate Change Solutions Inc v Minister of Energy and Resources* [2022] NZHC 2116, [2022] NZRMA 612; *All Aboard Aotearoa Inc v Auckland Transport* [2022] NZHC 1620 at [86]–[88]; and *Movement v Waka Kotahi* [2023] NZHC 342 at [15]–[21].

⁴⁵ *Students for Climate Change Solutions* (CA) at [39]–[47], quoting from [46]. The Commission respectfully submits that the approach taken by Palmer J in *Hauraki Coromandel Climate Action Inc v Thames-Coromandel District Council* [2020] NZHC 3228, [2021] NZRMA 22 at [50]–[51] should not be followed.

⁴⁶ Affirmed for example in *Attorney-General v Taylor* [2018] NZSC 104, [2019] 1 NZLR 213 at [117] per Elias CJ.

question of whether a statutory decision-maker in taking action that has the potential to infringe an individual's rights has acted on "sufficient evidence" and "fully justified" their position, is not inherently problematic *in that context*.

35. It is however quite a different matter for the court to assume the role of judging (without recourse to a legal framework) whether an expert body such as the Climate Change Commission has adequately 'justified' its position or acted on 'sufficient' evidence on a matter of complex polycentric advice. The court here would be setting itself up to second guess the statutory appointed experts on core questions that Parliament has tasked *them* to decide, involving matters where the court has no competence or expertise. It is also relevant that the court hears here from only one submitter from multiple perspectives considered by the Commission through more than 700 hui and over 15,000 submissions.⁴⁷ As this Court observed in *Smith v Fonterra*:⁴⁸

... Courts do not have the 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 subject to judicial resolution.

36. While the Court was speaking in the context of a claim in tort and goes on to affirm the proper role of the courts in supporting and enforcing the statutory scheme for climate change response,⁴⁹ these reservations apply with equal force to a 'hard look' type approach to judicial review that would risk the court becoming a de facto appellate body from the Climate Change Commission.
37. A similar approach to recognising the constitutional competency of the courts in judicial review is apparent in this Court's more recent decision in *New Zealand Forest Owners Assoc v Wairoa District Council*, following the Supreme Court in *Auckland Council v C P Group Ltd*.⁵⁰ Those cases were judicial reviews of rating decisions by democratically elected Councils, but the commentary would appear to have similar application to the polycentric judgements made by the independent expert body appointed by Parliament, who make their assessments informed by extensive community and stakeholder engagement. As the Supreme Court in *C P Group*, in affirming the continued application

⁴⁷ Hendy at [66] and [76] **COA 201.0119** at [[201.0133]].

⁴⁸ *Smith v Fonterra Co-Operative Group Ltd* [2021] NZCA 552, [2022] 2 NZLR 284 at [26], judgment of the Supreme Court pending.

⁴⁹ At [35].

⁵⁰ *New Zealand Forest Owners Assoc v Wairoa District Council* [2023] NZCA 398; and *C P Group Ltd* (SC).

of *Wednesbury*, explained:⁵¹

... the nature of rating decisions and the judgement to be exercised by local authorities in making them suggest an approach to judicial review in which the local authority as decision-maker is given some latitude in the rating decision. The point fairly made by Local Government New Zealand is that these are complex decisions, often not amendable to right or wrong answers, requiring the resolution of factual issues, the weighing of competing interests, and competing policy considerations. These decisions ultimately require judgement on the part of local authorities.

38. As this Court in *NZ Forest Owners* records:⁵²

This is to treat substantive deference in judicial review less a matter of judicial policy than the natural consequence of the diversity and policy content of considerations affecting rating decisions ...

39. The courts in the United Kingdom and Ireland have also warned against taking an overly interventionist approach to climate change litigation, while acknowledging the existential importance of these issues. Indeed, the recurring theme is that the court's proper acknowledgement of its constitutional role and competency is important, not despite the importance of climate change, but because of it.⁵³ This was recently endorsed in *Friends of the Earth Ltd and others v Secretary of State for Business, Energy and Industrial Strategy*:⁵⁴

The courts are well aware of the profound concerns which many members of the public have about climate change and the steps being taken to address the problem. So it is necessary to repeat what was said by the Divisional Court in *R (Rights: Community: Action) v Secretary of State for Housing Communities and Local Government* [2021] PTSR 553 at [6]:

"It is important to emphasise at the outset what this case is and is not about. Judicial review is the means of ensuring that public bodies act within the limits of their legal powers and in accordance with the relevant procedures and legal principles governing the exercise of their decision-making functions. The role of the court in judicial review is concerned with resolving questions of law. The court is not responsible for making political, social, or economic choices. Those decisions, and those choices, are ones that Parliament has entrusted to ministers and other public bodies. The choices may be matters of legitimate public debate, but they are not matters for the court to determine. The court is only concerned with the legal issues raised by the claimant as to whether the defendant has acted unlawfully."

⁵¹ At [96]. *Wednesbury* as affirmed in *Wellington City Council v Woolworths Ltd (No 2)* [1996] 2 NZLR 537 (CA).

⁵² At [63].

⁵³ See for example *R (Plan B Earth) v Prime Minister* [2021] EWHC 3469 (Admin) at [49]–[54]; and *An Taisce – the National Trust Board for Ireland v An Bord Pleanála and others* [2021] IEHC 254 at [43]–[44]. *An-Taisce* was the subject of an (unsuccessful) direct appeal to the Supreme Court, but there is no commentary on this issue in that judgment: *An Taisce – the National Trust Board for Ireland v An Bord Pleanála and others* [2022] IESC 8.

⁵⁴ *Friends of the Earth Ltd and others v Secretary of State for Business, Energy and Industrial Strategy* [2022] EWHC 1841 (Admin) at [22].

‘Other ground’ 3: the admissibility of ex-post expert evidence

40. In support of its application for judicial review LCANZ filed 253 pages of evidence from seven witnesses, putting forward wide-ranging criticisms of the Commission’s Advice, including of its analytical processes and substantive conclusions. None of that evidence was before the Commission when it finalised its Advice.
41. The Commission formally objected to the admissibility of much of this evidence, both in terms of relevance and, for a number of deponents, on the basis that the witness giving opinion evidence was not expert. The Commission as a matter of caution filed extensive evidence in response and recorded its concern that it should not have been put to the cost (especially in terms of finite Commission staff resources) in doing so.
42. Justice Mallon did not address the Commission’s objections in any detail, but instead made a rather ambiguous finding that:⁵⁵
- ... it has not been necessary to refer to much of the detail of the affidavit evidence ... 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.
43. Taken on its face, this would suggest that her Honour upheld the admissibility of only a confined part of the applicant’s evidence, but in the decision declining costs her Honour records that she “agreed with LCANZ on several contested issues [including that] ... the expert evidence was admissible”.⁵⁶ LCANZ (and other potential applicants) can reasonably take this as endorsement of a position that broad ranging evidence of this kind will be generally admissible in judicial review applications relating to the Commission’s Advice.
44. It is this concern for future litigation that leads the Commission to pursue this issue on appeal: the Commission accepts that there would be limited utility for this Court on appeal to engage in a paragraph by paragraph review of the applicant’s evidence, but rather seeks clarification from this Court that the established principles limiting such evidence ought to have been applied.

The established principles for admission of ex-post evidence from an applicant⁵⁷ in JR

45. It is well established that evidence challenging the merits or substance of the decision under review is not admissible, simply on the basis that it is – by definition – not relevant

⁵⁵ High Court at [80] **COA 05.0012** at [[05.0041]].

⁵⁶ *Lawyers for Climate Action NZ Inc v Climate Change Commission* [2023] NZHC 527 (costs) at [2].

⁵⁷ The rules governing the admissibility of ex-post evidence by a decision-maker are different, with the basic proposition being that there is limited scope for a decision-maker to file further

to the issues before the court.⁵⁸ See for example this Court in *Roussel Uclaf Australia Pty Ltd v Pharmaceutical Management Agency Ltd*.⁵⁹

New opinion evidence, not presented to the decision maker, can seldom help to demonstrate that a decision on what is essentially an evaluation exercise was unreasonable when made. It is not appropriate to allow in this material which was not before the decision maker, and was largely brought into existence after the impugned decision was made, and to do so essentially for the purpose of casting doubt on the substantive reasonableness of the decision.

46. Even in an ordinary appeal where the merits of the decision under appeal is in issue, the courts do not allow ex-post evidence (other than updating evidence) without leave, and the admission of further evidence is strictly limited.⁶⁰ So, even if Parliament had provided in the CCRA for a full right of appeal against the correctness of the Commission's Advice, this sort of extensive ex-post evidence would not generally be admissible.

Exceptions to the general rule that ex post evidence is not admissible

47. The courts recognise exceptions to the general rule including, for example, evidence relevant to the existence of a jurisdictional fact, evidence relevant to determining whether a proper procedure was followed, and evidence relied on to prove an allegation of bias.⁶¹ The courts also recognise that in certain other limited contexts, ex post *expert* evidence from an applicant can be appropriate. The principles can be summarised as follows:

evidence to supplement or 'improve' its decision. The Commission's evidence in this case does not attempt to do so, but rather falls into the following recognised categories: evidence on the expertise of the Commission, the process followed in preparing the Advice, and more detail on the materials before the Commission (Hendy); evidence by way of elucidation, given the highly technical and specific nature of LCA NZ pleaded grounds one and three (Smith, Young, Walter and Murray): see *R (United Trade Action Group Ltd) v Transport for London and others* [2021] EWCA Civ 1197 at [125]; and evidence in reply to what the Commission considers to be mostly inadmissible evidence from the applicant (Smith, Young, Walter, Murray, Carr, Glade and Toman): see for example *Taylor v Chief Executive of the Department of Corrections* [2015] NZCA 477, [2015] NZAR 1648 at [33]–[37].

⁵⁸ *Roussel Uclaf Australia Pty Ltd v Pharmaceutical Management Agency Ltd* [1997] 1 NZLR 650 (CA) at 658. See also *Mothers Against Genetic Engineering Inc v Minister for the Environment* HC Auckland CIV-2003-404-673, 7 July 2003 at [2] and [251]; *Attorney-General v Problem Gambling Foundation of New Zealand* [2016] NZCA 609, [2017] 2 NZLR 470 at [81]–[85]; *Coromandel Watchdog of Hauraki (Inc) v Minister of Finance* [2020] NZHC 1012 especially at [14] – [18]; *CD v Immigration and Protection Tribunal* [2015] NZCA 379, [2015] NZAR 1494 at [22]; and *New Zealand Independent Community Pharmacy Group v Te Whatu Ora – Health New Zealand* [2023] NZHC 1486 at [129]–[130].

⁵⁹ *Roussel Uclaf* at 658.

⁶⁰ See for example *Commerce Commission v Woolworths Ltd* [2008] NZCA 276, [2009] NZCCLR 12 at [50]–[54].

⁶¹ *R v Secretary of State for the Environment, ex parte Powis* [1981] 1 WLR 584 (CA) at 595. For a more general discussion see David Blundell *Of Evidence and Experts: Recent Developments and Fact Finding and Expert Evidence and Judicial Review* (2018) 23 JR 243.

- 47.1 Ex-post expert evidence that is challenging the merits of an expert body's assessments and views is not relevant to the assessment of lawfulness and is not admissible: in the context of an expert decision-maker, an expert challenge to the expert assessments made is simply a correctness challenge.⁶²
- 47.2 Where there is a claim of irrationality that relates to a technical matter, expert evidence can be adduced if a layperson would need assistance understanding the technical context of the decision. Such evidence is admitted to enable the court to perform its function, and the exception is narrow. The evidence should only explain the process, rather than assert why the decision-maker was incorrect.⁶³
- 47.3 Expert evidence can be admitted where there is a claim that the decision under challenge was reached by a process of reasoning which involved a serious technical error: "...of a kind which is not obvious to an untutored lay person ... but can be demonstrated by a person with relevant technical expertise." Critically, however, the evidence must establish that the error is not only apparent, but that it is incontrovertible:⁶⁴

What matters for this purpose is not whether the alleged error is readily apparent but whether, once explained, it is incontrovertible. ... if the alleged technical error is not incontrovertible but is a matter on which there is room for reasonable differences of expert opinion, an irrationality argument will not succeed. This places a substantial limit on the scope for expert evidence.

48. The majority of LCAZ' evidence falls outside these exceptions. Notably, none of the challenges to the Budgets (grounds 2, 3 and 4) encompass any claim of technical error: only in relation to ground one (mathematical error in the NDC Advice) would this be even arguable.

⁶² *R (Law Society) v Lord Chancellor* [2018] EWHC 2094 (Admin), [2019] 1 WLR 1649 at [36].

⁶³ David Blundell *Of Evidence and Experts: Recent Developments and Fact Finding and Expert Evidence and Judicial Review* (2018) 23 JR 243 at [22].

⁶⁴ *R (Law Society) v Lord Chancellor* [2018] EWHC 2094 (Admin), [2019] 1 WLR 1649 at [39]–[41]. See also on the latter point, *R (Spurrier) v Secretary of State for Transport* [2019] EWHC 1070 (Admin), [2020] PTSR 240 at [173]; and *End Violence Against Women Coalition v Director of Public Prosecutions* [2021] EWCA Civ 350, [2021] 1 WLR 5829 at [20]–[21]. See also *Raja and Hussain v London Borough of Redbridge (Rev 1)* [2020] EWHC 1456 (Admin), [2020] PTSR 2129 at [24]–[25]; *University College London Hospitals NHS Foundation Trust v MB* [2020] EWHC 882 (QB) at [20]; *Gardner v Secretary of State for Health and Social Care* [2021] EWHC 2946 (Admin) at [3]; *Keir v Natural England* [2021] EWHC 1059 (Admin) at [44]; *R (Transport Action Network Ltd) v Secretary of State for Transport* [2021] EWHC 2095 (Admin), [2022] PTSR 31 at [80]; *Maxey v High Speed 2 Ltd* [2021] EWHC 246 (Admin) at [39]; and *R (Public and Commercial Services Union and Care 4 Calais) v Secretary of State for the Home Department* [2022] EWHC 517 (Admin) at [23]–[24]. See also New Zealand cases referred to below at fn 66.

49. It is also well established (sufficiently clearly for this Court to describe it as a ‘truism’⁶⁵) that it is not the court’s function in judicial review to resolve questions demanding the evaluation of contentious expert opinion.⁶⁶ In the present case, *all* of the adverse commentary and critiques put forward by LCANZ’ witnesses have been contested by the respondents, and the Court in the context of judicial review accordingly has no basis to overturn the Commission’s assessments.

LCANZ proposed ‘adverse inference’ from the Commission’s ‘lack of expert evidence’

50. LCANZ criticises the Commission for not filing its own ex-post evidence from independent experts to defend its Advice, and asks the Court to make adverse inferences on that basis.⁶⁷ This is misconceived, and illustrates the problem with LCANZ’ approach to ex-post evidence. Judicial review of an expert decision-making body is not about hearing competing views from opposing experts undertaking an ex-post critique of the original decision, with the Court placed as the non-expert adjudicator deciding which ex-post analysis it prefers. This would be to replace the Court as decision-maker on matters that Parliament tasked the expert body to determine, and effectively relegate the prior process (including the extensive stakeholder, expert and community engagement) to nothing more than “a dummy run”.⁶⁸
51. The criticism is also wrong in fact. The Commission’s primary expert ‘evidence’ on all the issues canvassed by LCANZ’ witnesses is set out in its Advice. That Advice represents the considered view of the Commission, supported by its staff and extensive external expert input. The Commission and its staff are individually and collectively highly expert, as Justice Mallon confirms at [12].⁶⁹

⁶⁵ *New Zealand Pork Industry Board* (CA) at [94].

⁶⁶ See United Kingdom cases referred to above fn 64, and also *NIWA* (HC) at [47]–[48]; *New Zealand Climate Science Education Trust v NIWA* (CA) at [8]–[9] and [14]; *New Zealand Pork Industry Board* (CA) at [94] and [104] (leave to appeal to the Supreme Court granted, but not on this issue: *New Zealand Pork Industry Board v Director-General of The Ministry of Agriculture And Forestry* [2013] NZSC 50); *New Zealand Animal Law Association v Attorney-General* [2020] NZHC 3009 at [190]–[196]; *Lab Tests Auckland Ltd v Auckland District Health Board* [2008] NZCA 385, [2009] 1 NZLR 776 at [340]; *SmithKline Beecham (New Zealand Ltd) v Minister of Health* HC Wellington CP49/02, 15 May 2002 at [80]; and *Mothers Against Genetic Engineering Inc* (HC) at [2], [246]–[249] and [251].

⁶⁷ LCANZ submissions at [57]–[58].

⁶⁸ *Telecom Corporation of New Zealand Ltd v Commerce Commission* [1991] 2 NZLR 557 (CA) at 558.
⁶⁹ High Court at [12] **COA 05.0012** at [[05.0018]]. See Hendy **COA 201.0119** at [[201.0127]]–[[201.0132]].

52. The additional evidence filed in response to the applicant’s witnesses from staff (Smith, Young, Walter and Murray) and the Commission Chair, Dr Carr, makes it clear that the Commission has also now also given expert consideration to the evidence of the applicant’s witnesses and disagrees with it.
53. The Commission also filed evidence from two independent experts in response to LCANZ’ evidence: Dr Toman on cost benefit analyses and Dr Olia Glade – by far the most qualified expert on climate change accounting before the Court – on the alleged logical/mathematical error and the validity of the Commission’s climate change accounting methodologies. The Commission’s position is also independently supported by the separate evidence of the experienced and qualified witnesses from the Ministry for the Environment.
54. LCANZ’ inferences that some of these witnesses may be compromised in their evidence is unfounded and, in respect of Dr Reisinger, improper.⁷⁰ The claim that the Commission’s Advice and evidence reflects no expertise “regarding the IPCC Special Report” is also simply wrong.⁷¹ It is also noted that Professor Forster (for LCANZ) acknowledges the “widely respected expertise” of Dr Glade, Dr Reisinger and Matthew Smith in particular.⁷²

⁷⁰ LCANZ submissions at [57(a)].

⁷¹ See fn 69 above: the Commission’s work is supported by an interdisciplinary team of experts with wide-ranging expertise in the science of climate change, emissions reporting and accounting, and wider issues of climate policy (details are set out in Hendy and the individual affidavits of those who gave direct evidence here). In terms of Commissioners, Dr Harry Clark, Dr Judy Lawrence and Professor James Renwick are highly qualified experts on climate science and mitigation and adaptation, and have each been internationally recognised with appointments as authors of reports prepared by the IPCC: Dr Harry Clark was appointed the lead author for Global Assessment Reports 5 and 6, Dr Judy Lawrence was appointed as a Coordinating Lead Author with the IPCC Sixth Assessment Review, and Professor Renwick was appointed as a Lead Author and Coordinating Lead Author on three Assessment Reports. Catherine Leining is one of New Zealand’s foremost experts on climate mitigation policy, having co-led Motu Economic and Public Policy Research’s programme on “Shaping New Zealand’s Low-Emission Future”. Noting also Dr Reisinger giving evidence for MfE is a member of the Bureau of the IPCC, serving as Vice-Chair of Working Group III (mitigation of climate change). He was also a contributing author to the IPCC 6th Assessment Report, Working Group I “Summary for Policymakers” (The Physical Science Basis), served as coordinating lead author and member of the Core Writing Team for two IPCC reports, and coordinated the writing and approval of an earlier Report of the IPCC between 2006 and 2008 while in the role of Head of Technical Support Unit for the Synthesis Report of the IPCC: Reisinger 1 at [3] **COA 201.0283** at [[201.0284]]

⁷² Forster 2 at [4] **COA 201.0420** at [[201.0422]].

The applicant's witnesses – not qualified and/or not on admissible topics

Emeritus Professor Ralph Sims (NZ)

55. Professor Sims' evidence in chief does not address the Commission's Advice.⁷³ His evidence appears to be provided in support of the merits of LKANZ' overall policy position (that faster reductions are required), and is in effect an ex-post 'submission', that was not before the Commission. While much of his evidence is not contentious,⁷⁴ it is also not relevant to any issue of lawfulness that the Court is required to determine in this judicial review.

Dr Stephen Gale (NZ)

56. Dr Gale is an economist and former Telecommunications Commissioner.⁷⁵ His evidence is directed to the alleged 'logical error' in the technical development of the NDC advice pleaded in ground one, so is potentially within scope of expert evidence that may be of assistance to the Court. Dr Gale however has no relevant expertise or qualifications to provide an expert opinion on this issue.⁷⁶ Dr Gale's evidence is nothing more than a lay person's commentary on what he sees to be an error of logic.

Dr Joeri Rogelj (UK), Professor Wuebbles and Professor Forster

57. These three witnesses are qualified experts, although Dr Rogelj and Professor Wuebbles were asked only to give an opinion on a hypothetical scenario in relation to the NDC that did not match the Commission's task or the analytical process the Commission actually undertook. Further it appears that neither Dr Rogelj nor Professor Wuebbles have read the Commission's Advice (in any detail or potentially at all), calling into question their specific expertise to provide expert evidence about it.⁷⁷

⁷³ Professor Sims in reply does put forward an opinion on the content of the Commission's Advice (Sims at [4]–[8] **COA 201.0417** at [[201.0418]], but that is new evidence not properly in reply, and in any event is cursory and conclusory only and does not provide the technical assistance on the issue that might be admissible as an exception to the general rule.

⁷⁴ Smith at [174] **COA 201.0140** at [[201.0188]].

⁷⁵ Gale 1 at [1] **COA 201.0001** at [[201.0002]]; and Gale 2 at [1] **COA 201.0429** at [[201.0430]].

⁷⁶ Dr Gale claims "a life long experience of, and expertise in, practical mathematics in particular in a regulatory context." He says that "over the last 40 years I have worked in energy sector planning, resource management, competition proceedings and climate change policy": **COA 201.0001** at [[201.0002]]. In response, Matthew Smith's evidence expressly raised the issue that Dr Gale appeared not to have any experience or expertise in climate change accounting (Smith at [114.1] **COA 201.0140** at [[201.0173]]). Dr Gale did not address this in his reply (Gale 2 **COA** at [[201.0429]]).

⁷⁷ Both refer in their evidence in chief to having read the affidavit of Dr Gale, and neither make any reference to the Commission's Advice (Rogelj 1 at [7] **COA 201.0060** at [[201.0062]] and Wuebbles 1 at [7] **COA 201.0012** at [[201.0014]]). Matthew Smith raised this as an issue in his

58. Professor Forster on the other hand was asked to comment directly on what the Commission did in advising on the NDC,⁷⁸ and his evidence in chief would on the broadest approach fall within the category of evidence that may provide technical assistance to the court to understand the alleged error pleaded in ground one. However, this evidence is contested, and falls well short of alleging let alone demonstrating incontrovertible error. Much of his evidence in reply goes well beyond providing technical assistance and into a critique of the merits of the Commission's approach (as well as raising a number of new matters that the Commission has not had the opportunity to address) and is accordingly inadmissible.

Dr Ivo Bertam (NZ)

59. Like Dr Gale, Dr Bertram is also an economist.⁷⁹ His evidence is wide ranging, setting out an extensive critique on the merits of the Commission's Advice. Dr Bertram has strong personal views that the climate accounting rules he is critiquing (being the same rules mandated under the Kyoto Protocol, and that Professor Forster for LCANZ considers reasonable for the Commission to use⁸⁰): Dr Bertram claims these rules are "a key tool for misinformation" by the government, and that this accounting approach is "specious" and the resulting analysis "obviously untrue".⁸¹
60. Dr Bertram also has no relevant expertise or qualifications to provide expert evidence on these topics.⁸² Matthew Smith giving evidence in response for the Commission raised his lack of expertise.⁸³ In reply Dr Bertram accepts that he does not have specific expertise in this area but claims that it is unnecessary:⁸⁴

[c]lose acquaintance with the complex details of gross-net accounting is not required to answer the simple question: should the Special Report net-net pathway for net CO₂ be applied to New Zealand's 2010 gross CO₂ or 2020 net CO₂ to produce a target for 2030? Commonsense, logic, and science all say net CO₂. No amount of detailed exposition of

affidavit in response, expressly questioning whether these witnesses had read the Commission's Advice, and postulating that their views were based on a lack of understanding of what the Commission did and why (Smith at [116]–[119] and [124]–[125] **COA 201.0140** at [[201.0174]] and [[201.0175]]–[[201.0176]]). Neither responded on this issue (Rogelj 2 at [4] **COA 201.0458** at [[201.0459]] and Wuebbles 2 at [3] **COA 201.0390** at [[201.0391]]).

⁷⁸ Forster 1 at [3] **COA 201.0007** at [[201.0008]].

⁷⁹ Bertram 1 at [1]–[7] and exhibit A **COA 201.0016** at [[201.0017]]–[[201.0018]] and **COA** at [[301.0049]].

⁸⁰ Forster 1 **COA 201.0007** at [[201.0009]].

⁸¹ Dr Bertram's submission on the Climate Change Commission's draft advice: **COA 505.2034** at [[505.2036]] and [[505.2038]].

⁸² Dr Bertram does not claim any specific expertise and his CV is clear that he does not have either qualifications or experience in the matters covered in his evidence: Bertram 1 at [1]–[7] and exhibit A **COA 201.0016** at [[201.0017]]–[[201.0018]] and **COA** at [[301.0049]].

⁸³ Smith at [141] **COA 201.0140** at [[201.0179]].

⁸⁴ Bertram 2 at [35] at **201.0394** at [[201.0403]].

the highly technical accounting procedures behind the gross-net number can overcome that simple logic.

61. Dr Bertram’s views are no more than arguments and ‘analysis’ put forward by an interested lay person, based on “commonsense” and “simple logic”.⁸⁵ This is not expert testimony. It also is the direct antithesis of the grounds for admissibility of this form of ex-post expert evidence in the first place: if the matter does not require expert evidence to allow a layperson to understand the technical error, then there is no basis to admit any evidence on it at all.

Dr William Taylor (NZ)

62. Dr Taylor is a consultant economist with NERA Economic Consulting, a global economic consulting firm. He has no experience or qualifications in climate change matters at all, let alone any expertise.⁸⁶
63. Dr Taylor’s evidence is broad in scope, comprising a 50 page report proffering his view on a wide range of matters, including not only matters of climate change accounting and policy, but also setting out how he – as a consultant economist – would have approached the Commission’s task, including the framework he would have applied and the steps he would have followed to develop the Budgets.
64. His second affidavit addresses the revised NDC (announced in November 2021, after the Commission’s advice was published in May 2021) and the use of offshore mitigation. Dr Taylor’s reply affidavit goes on to set out a four-step approach he considers should have been adopted by the Commission in preparing the advice on the NDC, which he argues is preferable. His evidence then proceeds to a further wide-ranging critique of the merits of the Commission’s approach on many topics.
65. Like Dr Bertram, Dr Taylor’s evidence appears to be primarily one economist’s view as to how he could have done a better job than the Climate Change Commission.⁸⁷

Dr Taylor’s data conversions: budgets from MAB to GHGI, and NDC to net:net using GHGI

66. For completeness, the Commission does not challenge the admissibility of Dr Taylor’s basic data ‘conversion’ of the NDC and recommended emissions budgets from the

⁸⁵ See also Smith at [142] **COA 201.0140** at [[201.0180]].

⁸⁶ Taylor 1, exhibit A page 1 **COA 301.0069** at [[301.0072]]. Matthew Smith raised this issue in his evidence (Smith at [164] **COA 201.0140** at [[201.0186]]): Dr Taylor did not contest this in his reply.

⁸⁷ Noting Simon France J made a similar criticism of Dr Bertram’s opinion evidence in *Coromandel Watchdog of Hauraki (Inc) v Minister of Finance* [2020] NZHC 1012 at [18].

accounting methodologies that the Commission used, to the accounting methodologies that LCANZ says it should have (although it does raise issues with its analytical integrity, below).⁸⁸ This is a basic data conversion exercise which could in theory fall within the exception of providing technical context that may be of assistance to the Court. As Justice Mallon records, Dr Reisinger (giving evidence for the Minister) makes a similar comparison for the NDC.⁸⁹

67. The admissibility of that data conversion exercise however does not extend to the critique Dr Taylor puts forward as to why his (LCANZ) approach is to be preferred. Respectfully, this is a clear error by Justice Mallon. Her Honour records at [284] that she cannot in the context of judicial review resolve whether Dr Taylor’s calculations are correct, but then goes on to assess what she refers to as “the key contests”, being the even more technical and scientifically complex issues of (emphasis added): “whether a gross:net approach *is appropriate* and whether GHGI or MAB *should* be used”. Her Honour rules that Dr Taylor’s evidence (and presumably the similar evidence from Dr Bertram) is admissible *in that context*, “to illustrate LCANZ’s concerns with the Commission’s approach.”⁹⁰
68. This appears to be allowing ex-post evidence directed to the substantive merits of the Commission’s approach, which is not permitted in judicial review.

CLIMATE CHANGE ACCOUNTING: BASICS AND KEY CONCEPTS TO BE CLEAR ON

69. At the centre of all LCANZ’ challenges is a difference in view about climate change accounting. As noted, this is a highly specialised and complex field, and there are some basic principles and key concepts that are not well explained in LCANZ’ submissions but which need to be clearly understood.

International obligations and climate change accounting

70. The United Nations Framework Convention on Climate Change (**UNFCCC**) entered into force in 1994. New Zealand has annual *reporting* obligations under the UNFCCC. These reports are designed to give a comprehensive picture of a nation’s total estimated emissions and removals in that year, and in each year in the time series (although they

⁸⁸ Taylor 1 Appendix B **COA** at [[301.0117]].

⁸⁹ High Court at [284] **COA 05.0012** at [[05.0109]]. Reisinger 1 at [90] **COA 201.0283** at [[201.0317]].

⁹⁰ High Court at [280]–[281] **COA 05.0012** at [[05.0108]]–[[05.0109]].

are not fully comprehensive, as Justice Mallon records⁹¹). These UNFCCC reports (also called National Inventory Reports) do not involve the comparison of emissions against any kind of target or benchmark.⁹² These reports are also not static, nor do they represent an ‘unchanging truth’: the whole time series of emissions back to 1990 is updated with each new report as new information becomes available and better methods of estimating emissions are applied.⁹³ These are the reports that LCANZ refers to as GHGI, referring to the Greenhouse Gas Inventory maintained by MfE from which the reports are generated.⁹⁴

71. The Kyoto Protocol to the UNFCCC entered into force in 2005 and was the first time that countries agreed to take on individual binding emissions reductions targets.⁹⁵ The Protocol committed the Annex 1 Parties (in basic terms, developed countries) to limit greenhouse gases in accordance with individual economy wide emission reductions targets for the first commitment period (2008 – 2012). A second commitment period (2013 – 2020) was established under the Doha Amendment to the Protocol. Commitment for this period was optional.⁹⁶
72. With binding targets came ‘target accounting’: the development of the highly prescriptive rules that the State Parties collectively agreed would govern how their individual targets were set and how progress against those targets would be measured. The focus of this *accounting* approach (literally, the method of measuring emissions for which State Parties were to be ‘accountable’ for⁹⁷), as opposed to UNFCCC *reporting*, is to track the mitigation impact of human activities, not to simply reporting a stocktake of ‘what the atmosphere sees’ in any particular year. This principle of ‘additionality’ – what effective changes the State Party makes in its climate change response and what

⁹¹ High Court at [26] and fn 26 **COA 05.0012** at [[COA 05.0022]]. See also Walter at [24]–[26] **COA 201.0074** at [[201.0080]]–[[201.0081]]; Murray at [21]–[23] **COA 201.0219** at [[201.0224]]–[[201.0226]]; and Glade at [76]–[79] **COA 201.0098** at [[201.0114]]–[[201.0115]]

⁹² Walter at [15], [16] and [20]–[27] **COA 201.0074** at [[201.0087]] and [[201.0079]]–[[201.0081]]; Murray at [65]–[68] **COA 201.0219** at [[201.0240]]; and Young at [27]–[66] **COA 201.0190** at [[201.0196]]–[[201.0209]].

⁹³ See for example Brandon at [19] **COA 201.0324** at [[201.0329]].

⁹⁴ Brandon at [12], [14] and [16] **COA 201.0324** at [[201.0327]], [[201.0327]] and [[201.0329]]; and Plume at [13]–[16] **COA 201.0346** at [[201.0350]]–[[201.0351]].

⁹⁵ Walter at [17]–[19] and [28]–[36] **COA 201.0074** at [[201.0078]]–[[201.0079]] and [[201.0082]]–[[201.0083]]; Murray at [32]–[46] **COA 201.0219** at [[201.0230]]–[[201.0234]]; and Smith at [29]–[55] **COA 201.0140** at [[201.0149]]–[[201.0156]].

⁹⁶ New Zealand elected to take an emissions reduction target for this period under the UNFCCC, rather than commit under the Protocol: Walter at [31] **COA 201.0074** at [[201.0082]]; and Plume at [48]–[50] **COA 201.0346** at [[201.0359]].

⁹⁷ See for example Walter at [32] **COA 201.0074** at [[201.0082]].

new actions it takes – is fundamental to target accounting.⁹⁸ States do not get rewarded or penalised for the legacy effects of decisions made and actions taken in the past, before the Kyoto Protocol commitment base year (1990 for New Zealand).

73. New Zealand’s reports under the Kyoto Protocol are also generated through the Greenhouse Gas Inventory.⁹⁹
74. The Paris Agreement was adopted by the Parties to the UNFCCC in December 2015. It entered into force in November 2016 although some key obligations did not apply until 2020.¹⁰⁰ The Paris Agreement commits all State Parties to take action on climate change, not just the Annex 1 (developed) countries, but it does not set targets or prescribe what actions must be taken. Rather, the obligation on each party is to prepare, communicate and maintain their own successive Nationally Determined Contribution, that they intend to achieve. It is this obligation to prepare, communicate and maintain an NDC that is binding, not the achievement of the NDC goal itself. The Paris Agreement provides considerable latitude as to the types of NDCs that can be set (for example, especially for less developed countries an NDC may well not be in the form of an economy wide emissions reductions target).¹⁰¹
75. In order to accommodate the resulting diversity of NDCs the accounting framework under the Paris Agreement is also significantly less prescriptive than that under the Kyoto Protocol, but there is an emphasis on countries maintaining internal consistency with past practice.¹⁰² New Zealand communicated its first NDC in 2016 and has committed to using a modified form of the accounting approach adopted under Kyoto.¹⁰³ NDC reports are also generated through the Greenhouse Gas Inventory.¹⁰⁴

⁹⁸ Brandon at [58] **COA 201.0324** at [[201.0340]]; and Murray at [35]–[38] and [45] **COA 201.0219** at [[201.0231]–[201.0232]] and [[201.0234]].

⁹⁹ Brandon at [12], [14.1]–[14.2], [16.2], [17], [22] and [23] **COA 201.0324** at [[201.0327]], [[201.0328]], [[201.0329]], [[201.0331]] and [[201.0332]].

¹⁰⁰ See Walter at [37]–[43] **COA 201.0074** at [[201.0083]–[201.0085]]; Murray at [47]–[59] **COA 201.0219** at [[201.0234]–[201.0238]]; Young at [27]–[66] **COA 201.0190** at [[201.0196]–[201.0209]]; and Smith at [17]–[28] and [49]–[55] **COA 201.0140** at [[201.0146]–[201.0149]] and [[201.0155]–[201.0156]].

¹⁰¹ Walter at [38]–[42] **COA 201.0074** at [[201.0083]–[201.0084]].

¹⁰² Walter at [41]–[42] **COA 201.0074** at [[201.0084]]. See also Murray at [48]–[49] **COA 201.0219** at [[201.0234]].

¹⁰³ Brandon at [44] and [46] onwards **COA 201.0324** at [[201.0337]].

¹⁰⁴ Brandon at [14.3]–[14.5] **COA 201.0324** at [[201.0328]].

The 2018 IPCC Special Report and the pathways to 1.5°C

76. The Intergovernmental Panel on Climate Change is the United Nations body for assessing the science related to climate change, formed in 1988 by the World Meteorological Organisation and the United Nations Environment Programme.¹⁰⁵ The IPCC's objective is to provide governments at all levels with scientific information they can use to develop climate change policies. The IPCC describe its work as neutral, that its reports are policy relevant, but not policy prescriptive.¹⁰⁶
77. LCA NZ' proposition apparent in its submissions,¹⁰⁷ that 'application' of the *global* pathways outlined in the 2018 IPCC Special Report have somehow become obligatory under the Paris Agreement (and thus the CCRA) is accordingly misconceived. It is also contrary to established judicial authority that confirms that the obligations under the Paris Agreement are procedural only, to communicate an NDC.¹⁰⁸
78. Nor is LCA NZ correct in its claims that: (a) the IPCC pathways are intended to be used to set national targets based on some sort of 'averaging' assessment as a 'fair share'; and (b) that they are suitable for that purpose. The IPCC itself is clear that this is not the case,¹⁰⁹ and none of LCA NZ' qualified expert witnesses agree with those propositions. On the contrary, Professor Forster, in the context of providing advice to the Commission during the development of its Advice, warned against taking such an overly simplistic approach.¹¹⁰ Dr Rogelj in his evidence for LCA NZ expresses his opinion that "it is

¹⁰⁵ The IPCC is not a 'sitting' panel of experts. Rather, as its name implies it an intergovernmental body (currently with 195 member states), and its reports and guidance are the work of various scientists and teams of authors nominated by member governments from time to time: Sims 1 at [6] **COA 201.0046** at [[201.0048]], and more generally Walter at [44]–[45] **COA 201.0074** at [[201.0085]]–[[201.0086]].

¹⁰⁶ IPCC website: <www.ipcc.ch/>.

¹⁰⁷ See for example LCA NZ submissions at [7], [32], [101] and [139].

¹⁰⁸ This limited nature of the obligations under the Paris Agreement (as procedural not substantive) is confirmed for example in: *Thomson v Minister for Climate Change* [2017] NZHC 733, [2018] 2 NZLR 160 at [139]; *R (Plan B Earth) v Secretary of State for Business Energy and Industrial Strategy* [2018] EWHC 1892 (Admin) at [30], [37]–[39] and [41] (permission to appeal declined by the Court of Appeal: *R (Plan B Earth) v Secretary of State for Business Energy and Industrial Strategy* [2019] C1/2018/1750 (Civ)); *R (Friends of the Earth Ltd) v Heathrow Airport Ltd* [2020] UKSC 52, [2021] PTSR 190 at [70]–[72] and [122]; and *Friends of the Earth Limited v Secretary of State for International Trade* [2023] EWCA Civ 14 at [47]. See also *Elliott-Smith v Secretary of State for Business, Energy and Industrial Strategy* [2021] EWHC 1633 (Admin), [2021] PTSR 1795.

¹⁰⁹ The IPCC is clear in the Special Report that the model pathways "... illustrate relative global differences in mitigation strategies, but do not represent central estimates, national strategies, and do not indicate requirements" (Special Report Figure SPM.3b caption **COA 501.0013** at [[501.0041]]).

¹¹⁰ Smith at [155]–[156] **COA 201.0140** at [[201.0183]]. See also Forster 1 at [5] **COA 201.0007** at [[201.0009]] and Forster 2 at [4] and [13] **COA 201.0420** at [[201.0422]] and [[201.0424]].

conceptually questionable to apply reductions from global emissions pathways directly the national context of an individual country.”¹¹¹

79. Dr Olia Glade (giving expert evidence for the Commission) similarly explains that the IPCC global pathways were never intended to be applied at a domestic level:¹¹²

Some of the witnesses for LCA NZ appear to assume that the IPCC pathways can be directly applied to set national budgets, as a sort of mathematical exercise. This is incorrect.

The purpose of the IPCC 2018 Special Report was not to create a methodology for setting national carbon budgets. This was outside of the scope of the Report. The purpose of the Special Report was to project different pathways for net emissions (defined as “anthropogenic emissions reduced by anthropogenic removals”) that are consistent with limiting global warming to 1.5°C above pre-industrial levels.

There are many international reports and publications that provide guidance to countries on how to set, calculate, and account for, carbon budgets. The Special Report is not one of them.

80. The Commission also explains in its Advice that while the IPCC pathways can provide useful insights for considering how New Zealand is contributing to the global 1.5°C effort, they represent global averages and care needs to be taken when comparing the IPCC pathways to New Zealand’s emissions reductions for a number of reasons, including that New Zealand’s emissions profile differs greatly from the global emissions profile.¹¹³ Dr Reisinger for MfE endorses that view.¹¹⁴

Gross:net versus net:net

81. Gross:net and net:net emissions targets are about comparisons across time: they require a % drop in emissions by the target year, measured against the emissions in a specified base year. Specifically:
- 81.1 a gross-net target requires a % drop in net emissions by the target year, measured against the gross emissions in the base year;
- 81.2 a net-net target requires a % drop in net emissions by the target year measured

¹¹¹ Rogelj 1 at [12] **COA 201.0060** at [[201.0062]].

¹¹² Glade at [38]–[40] **COA 201.0098** at [[201.0105]], references omitted. See also Reisinger 1 at [23] **COA 201.0283** at [[201.0290]]; Smith at [62], [64]–[65], [71]–[72], [85]–[86] and [92]–[93] (**COA 201.0140** at [[201.0158]], [[201.0159]], [[201.0160]] – [[201.0162]], [[201.0166]] and [[201.0169]]).

¹¹³ Advice **COA 401.0001** at 401.0211. See also on the practical impossibility of directly ‘applying’ the IPCC global pathways to New Zealand’s national circumstances: Smith at [67]–[72] **COA 201.0140** at [[201.0160]]–[[201.0162]].

¹¹⁴ Reisinger 1 at [23]–[26] **COA 201.0283** at [[201.0290]]–[[201.0291]]. As does Professor Forster: see fn 110 above.

against the net emissions in the base year.

82. In climate change accounting, gross and net are not used in the usual accounting sense, where gross means eg total income, and net means a lower figure where something has been subtracted from the total, eg total income less expenses. Gross and net in climate accounting does **not** mean: gross = total carbon equivalent emitted, net = total emissions minus total removals.
83. Gross and net in climate change accounting are specialist terms that refer to whether LULUCF is included in the base and/or target years. LULUCF is the land sector (and does **not** include emissions from farming) – Land Use, Land Use Change, and Forestry: for New Zealand, mainly forestry.¹¹⁵
- 83.1 Gross **excludes** LULUCF (ie excludes both emissions and removals from the land sector);
- 83.2 Net **includes** LULUCF (ie includes both emissions and removals from the land sector).
84. That is, net = gross + LULUCF emissions and removals.
85. The definitions in the CCRA reflect this standard climate change accounting terminology.¹¹⁶ LCANZ is simply wrong in its submissions on the meaning of gross and net in the context of climate change accounting, and its criticism that the qualified experts on the Commission and Commission staff do not understand their subject is unfounded.¹¹⁷ Equally its claim that ‘net CO₂’ “corresponds to the GHGI measure” is incorrect.¹¹⁸
86. As the land sector in New Zealand is projected to remain a net sink, for New Zealand gross figures will always be higher than net, but this is not usually the case. Globally, for

¹¹⁵ Smith at [29]–[38] **COA 201.0140** at [[201.0149]]–[[201.0151]].

¹¹⁶ CCRA, s 4, defining “net accounting emissions” and “gross emissions”: net = gross + LLUCF.

¹¹⁷ LCANZ submissions at [25] and fn 47. The 2018 IPCC Special Report referred to is not dealing with climate change accounting nor addressing the concepts of gross vs net in that context (see Glade at [8] **COA 201.0098** at [[201.0144]]). The reference given by LCANZ in any event also illustrates that the Special Report is not referring to ‘net’ in the simplistic sense claimed: IPCC Special Report **COA 501.0013** at [[501.0140]].

¹¹⁸ LCANZ submissions at [25], noting the claim at fn 48 incorrectly states Mallon J’s conclusion, which was to the opposite effect. Regardless, whether or not the IPCC reports use GHGI (her Honour agreed with the Commission – and with Taylor in reply – that they did not) or were sufficiently aligned to be comparable (as her Honour held), that has nothing to do with the meaning of “net CO₂” in climate change accounting.

the majority of countries net figures will usually be higher than gross (ie their land use is an overall source of emissions, not a sink).¹¹⁹

87. The Kyoto Protocol required that countries such as New Zealand whose land sector were sinks in the base year (1990 for New Zealand) adopt a gross-net approach in accounting for whether they met the mandatory targets under the Protocol. This means that *all* countries with mandatory targets started with the higher figure of emissions (gross or net) as their base year measure, ensuring fairness in the relative targets. Gross-net is not about ‘special treatment’ for some countries, but reflects an internationally accepted climate change accounting system that aims for internal integrity and coherency.¹²⁰

Gross:net vs net:net only applies to the NDC claim, not the 2050 net zero target or the Budgets

88. The NDC is set as a comparison target: the NDC communicated in 2021 is expressed as requiring a 41% drop in net emissions by the target year (2030), measured against the gross emissions in the base year (2005).¹²¹ The selection of the gross:net approach was made by the Minister for the first NDC in 2016, and the Commission was not asked to and did not advise on it. LCA NZ’ pleaded challenge in ground one is accordingly not directed to the use of gross:net in the NDC, but rather to an issue in the modelling in the Commission’s Advice on whether the former NDC target was compatible with contributing to the 1.5°C global effort.¹²²
89. Contrary to LCA NZ now expanded claims in this appeal, this issue of gross:net vs net:net is confined to the NDC. The Budgets are not set on a ‘comparative’ basis: they simply specify the net emissions¹²³ allowed for each budget period. Budgeted emissions can of course be compared with prior years, but the commitment for each budget period is expressed in absolute terms, not in comparison to a base year, so issues of gross:net vs

¹¹⁹ Glade at [28] **COA 201.0098** at [[201.0103]]; Smith at [43] **COA 201.0140** at [[201.0153]]; and Murray at [42] **COA 201.0219** at [[COA.0233]].

¹²⁰ Glade at [46]–[53] **COA 201.0098** at [[201.0108]]–[[201.0110]]; Murray at [41]–[45] **COA 201.0219** at [[201.0232]]–[[201.0234]]; Brandon at [27]–[34] **COA.0324** at [[201.0333]]–[201.0334]]; and Plume at [25]–[26] **COA 201.0346** at [[201.0353]].

¹²¹ Shaw at [35]–[37] **COA 201.0371** at [[201.0385]] and exhibit JS-9 **COA** at [[302.0504]].

¹²² The NDC communicated in 2016 (on which the Commission was advising) was to reduce net greenhouse gas emissions to 30% below gross 2005 levels by 2030: **COA** at [[501.0008]]. The Commission’s Advice was that the NDC needed to represent a reduction of *much more than* 36% below 2005 levels by 2030 to be compatible with contributing to the global effort to limit global average temperature increase to 1.5°C: Advice **COA 401.0001** at [[401.0378]], and see more generally chapter 21, beginning at [[401.0369]].

¹²³ See definition of emissions budgets in s 4: i.e. including LULUCF.

net:net do not arise.

90. For completeness, the gross:net vs net:net issue also does not arise in the 2050 net zero target in the CCRA for greenhouse gas emissions other than biogenic methane.¹²⁴ The ‘net zero’ target is a “point target”: this is a milestone commitment, which simply states what the net¹²⁵ emissions in the target year must be (zero). There is no comparison with an earlier year.

MAB versus GHGI (LCANZ’ pleaded issue with the Budgets)

91. As noted, the Budgets and the 2050 net zero target are ‘net’, that is, including emissions and removals from LULUCF. This means forestry and other land use emissions and removals are to be counted. The issue between LCANZ and the Commission in relation to the claimed errors in the Budgets is *how* the repeating ‘tree cycle’ of carbon removals (as the trees grow) and emissions (when they are harvested) should be accounted for. This comes down to the choice of accounting methodologies.
92. The Commission expressed its proposed budgets using Modified Activity-based accounting. As the name indicates, this is a modified form of the Activity-based target accounting that is mandatory for reporting under the Kyoto Protocol. Activity-based accounting is focussed on *activity* (ie what action the State is taking to address climate change). In highly simplified terms, Kyoto activity-based accounting excludes the cyclical emissions and removals from forests planted *before* the base year (1990 for New Zealand), in line with the principle of additionality outlined above. These repeating tree cycles do not represent any *sustained* improvement in the level of greenhouse gases in the atmosphere (since the carbon sequestered by the trees while they grow is emitted again when the trees are harvested), and nor do these existing forestry areas represent any *additional action* by the relevant State Party. The temporary removals and re-emissions of the repeating forestry cycles are just legacy effects of decisions and actions taken in the past that will continue without any additional effort by the State, and make no long-term change to the level of greenhouse gases in the atmosphere.¹²⁶
93. *Modified* Activity-based (MAB) target accounting was developed for the Emissions Trading Scheme and is used for the NDC. Again in simplified terms, it is the same as the

¹²⁴ Biogenic methane has its own targets, which are in contrast set as comparison targets, see s 5Q(1)(b).

¹²⁵ Section 5Q states that the target is set as “net accounting emissions”: ie including LULUCF.

¹²⁶ Murray at [36]–[40] **COA 201.0219** at [[201.0231]]–[[201.0232]]; and Brandon at [27]–[36] **COA 201.0324** at [[201.0333]]–[[201.0334]].

Activity-based accounting under Kyoto but with the addition that the repeating cycle of removals and re-emissions from forests planted *after* 1989 are also not taken into account once the forest first reach maturity (through ‘averaging’). In other words, it carries the principle of additionality forward, past 1990: the State gets the ‘credit’ for planting a new forest only once, and after that the repeating emissions and removals of the harvesting and growth cycles are balanced out and no longer counted.¹²⁷ As Dr Olia Glade records, this approach is consistent with international good practice affirmed by the IPCC, and New Zealand’s MAB methodology has been endorsed internationally as a good practice case study.¹²⁸ LCA NZ’ most qualified expert witness to comment on this issue, Professor Forster, accepts it as a reasonable approach.¹²⁹

94. LCA NZ however say that the Commission was required instead to use the National Inventory Reporting measures New Zealand uses to report under the UNFCCC, which it refers to as GHGI.¹³⁰ These reports are described as better reflecting ‘what the atmosphere sees’ in any particular year (although as noted, that is not quite accurate¹³¹), but say nothing about additionality, and they have *never* been used to measure our progress toward an emissions reduction target.¹³²
95. The critical difference between MAB target accounting and GHGI reporting is that GHGI includes the swings of the forestry cycle in its year by year stocktake of emissions and removals.
96. Because New Zealand has a rather unique forestry profile where a significant proportion of our exotic forestry has ended up on the same planting and harvest cycle,¹³³ this has a major impact, effectively swamping any other changes in emissions and removals.¹³⁴

¹²⁷ Advice **COA 401.0001** at [[401.0219]]–[[401.0222]] and **COA 402.0412** at [[402.0488]]–[[402.0492]]; Murray at [48]–[59] **COA 201.0219** at [[201.0234]]–[[201.0238]]; and Brandon at [46]–[55] **COA 201.0324** at [[201.0337]]–[[201.0339]].

¹²⁸ Glade at [86]–[89] **COA 201.0098** at [[201.0116]]–[[201.0177]].

¹²⁹ Forster 1 at [7] **COA 201.0007** at [[201.0009]].

¹³⁰ LCA NZ submissions at [138] and more generally at [136]–[156]. This methodology is also described as a “land based” approach using “stock change” accounting: Murray at [63.1] and [67] **COA 201.0219** at [[201.0239]] and [[201.0240]].

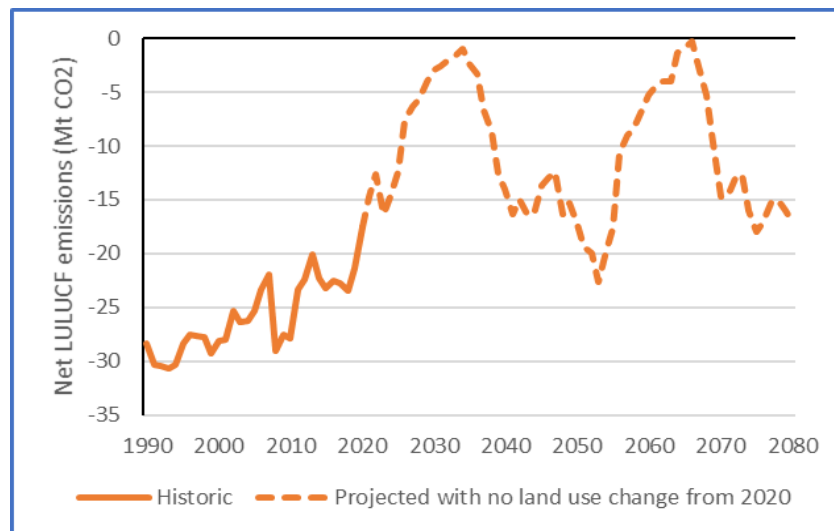
¹³¹ See fn 92 above.

¹³² Glade at [79] **COA 201.0098** at [[201.0115]]; and Young at [41]–[56] **COA 201.0190** at [[201.0200]]–[[201.0205]].

¹³³ Murray at [24]–[31] **COA 201.0219** at [[201.0226]]–[[201.0230]]; in more detail Young at [41] **COA 201.0190** at [[201.0200]] (see also more generally at [32] onwards ([[201.0197]]) and Smith at [39]–[41] **COA 201.0140** at [[201.0151]]–[[201.0152]].

¹³⁴ Murray at [25.2]–[28] **COA 201.0219** at [[201.0227]]–[[201.0229]]; and Young at [41]–[56] **COA 201.0190** at [[201.0200]]–[[201.0205]].

New Zealand’s exotic forests taken all together generate a projected overall emissions profile that in broad terms looks like this:¹³⁵



97. It is important to note that this profile is all below zero: these are always overall removals or ‘negative emissions’. New Zealand’s land sector is projected to *always* remain an overall a source of removals, so by excluding the tree cycle from target accounting New Zealand is not ‘hiding’ a source of emissions or somehow cheating – New Zealand is just not taking the (variable) benefit of these removals in calculating its net (in the colloquial sense) emissions. If we did so, our overall emissions less removals would *always* be lower and look better, but the amount of ‘credit’ we got would swing wildly depending on where the tree cycle was up to.¹³⁶

MAB vs GHGI is about expression, not ambition, and GHGI hides the level of real ambition

98. The Commission’s recommended Budgets (expressed in AR5 values¹³⁷) across all greenhouse gases, were as follows:¹³⁸

¹³⁵ Murray at [27] **COA 201.0219** at [[201.0228]].

¹³⁶ Smith at [43] **COA 201.0140** at [[201.0153]].

¹³⁷ Greenhouse gases are generally expressed as megaton equivalent quantities of carbon dioxide (Mt CO₂e) for accounting and modelling purposes. To determine how much of a certain gas (for example, methane) is equivalent to a megaton of carbon dioxide, it is necessary to calculate their relative impact on global warming. The GWP₁₀₀ (global warming potential over 100 years) values used for doing so changed slightly between the IPCC’s *Fourth Assessment Report* (AR4) and *Fifth Assessment Report* (AR5). The AR5 values have been mandated by the IPCC since 2021. See Advice Supporting Volumes: **COA 402.0412** at [[402.0502]]–[[402.0505]].

¹³⁸ Table 5.2: Advice **COA 401.0001** at [[401.0094]] and graphic at [[401.0101]]. High Court at [134] sets out the % reductions from 2019 represented by these budgets: **COA 05.0012** at [[05.0060]].

(Mt CO ₂ e)	2019 emissions	Budget 1 (2022–2025)	Budget 2 (2026–2030)	Budget 3 (2031–2035)
Budget		290 (over 4 years)	312 (over 5 years)	253 (over 5 years)
Annual average	78.0	72.4	62.4	50.6
% reduction from period to period		7%	14%	19%

99. If adopted and fully implemented, the recommended Budgets would see:¹³⁹

99.1 By the early 2030s net CO₂ emissions will have reached the IPCC ‘rule of thumb’ of a 50% reduction from 2010 emissions, whether measured on a net:net or gross:net basis (noting Justice Mallon’s statement to the contrary in the summary at [11(d)] is not correct, but her Honour records the correct position at [293] and [305]);

99.2 New Zealand’s CO₂ emissions will reach net zero by 2038, well before the IPCC goal of 2045 – 2055;

99.3 New Zealand will be on track to meet the 2050 net zero target across all greenhouse gases (except biogenic methane, and will be on track to meet the separate CCRA targets for biogenic methane).

100. Justice Mallon at [293]–[295] explains how LCANZ (via Dr Taylor¹⁴⁰) converted these budgets to ‘show’ a 310% *increase* over current emissions, simply by swapping from a MAB accounting approach to a GHGI measure.¹⁴¹ In other words, simply by reintroducing the repeating tree cycle, which just at the moment happens to be heading towards its smallest level of carbon removal (peaking at 2030), the GHGI measure has swamped the genuine reductions in emissions in the budgets.

101. Her Honour goes on at [296] to record what will happen next (which is not shown in Dr Taylor’s graphic): in the 20 years following 2030, using GHGI our emissions profile

¹³⁹ On a gross-net basis net CO₂ reduces to 55% below 2010 levels by 2030, and on a net-net basis reaches to 50% by 2033. The equivalent rule of thumb for methane from agriculture (the closest IPCC pathway equivalent to biogenic methane) is between -11% and -30% by 2030: the budgets would see biogenic methane reduce by -12% by 2030. Advice **COA 401.0001** at [[401.0032]], [[401.0087]], [[401.0096]]–[[401.0097]], [[401.0204]], [[401.0212]]–[[401.0213]], [[403.0899]], and for the net-net 50% figure see the Commission’s published paths and scenario dataset available at <https://www.climatecommission.govt.nz/our-work/advice-to-government-topic/inaia-tonu-nei-a-low-emissions-future-for-aotearoa/modelling/>.

¹⁴⁰ See Figure 4.4 in Taylor 1, Exhibit A **COA 301.0069** at [[301.0095]].

¹⁴¹ In his reply evidence Dr Taylor adjusted his calculations so that this figure reduces from 310% to 145% (Taylor 2 at [26] **COA 201.0436** at [[201.0442]]).

will decline steeply and reach the net zero target before 2050 - even if we make *no change at all* to our climate change policy settings. If we keep doing exactly what we were doing in 2021 in terms of policy settings for climate change response, this is what the tree cycle will do to our net emissions profile (blue line) using GHGI:¹⁴²

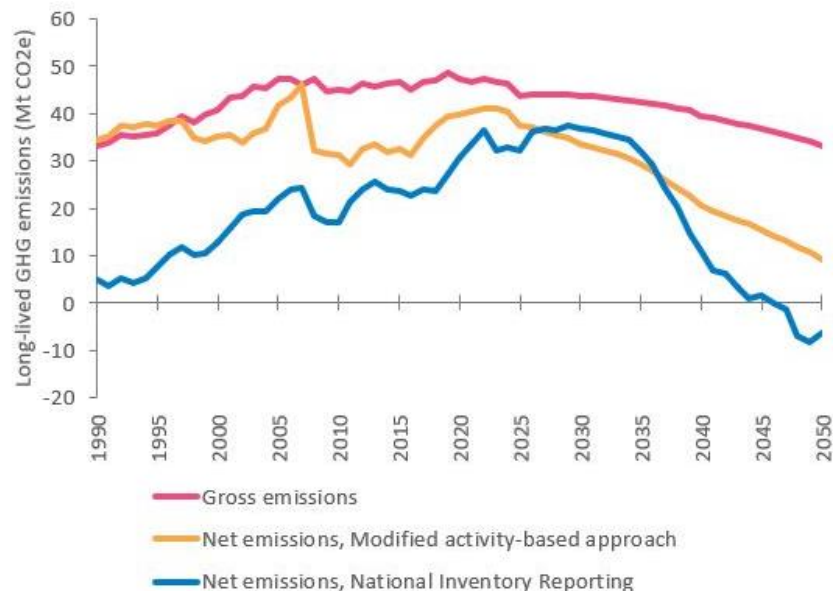


Figure: Gross and net emissions of long-lived greenhouse gases in the Current Policy Reference Case under MAB and GHGI

102. The red line is gross, and excludes all forestry. The yellow line reflects what MAB would show on 2021 policy settings (which includes an anticipated increasing rate of new forestry planting under the relevant ETS settings).¹⁴³ This is what we expect to see for our emissions profile if there were no change in policy settings for climate change response: our profile would show that current policy settings are not good enough to meet the 2050 target. In terms of holding government to account, that is a headline we need to see. LCANZ’ approach – the blue line – would have the target not only met but met early and exceeded by 2050, totally hiding the lack of government action.

Other issues with the integrity of Dr Taylor’s GHGI calculations

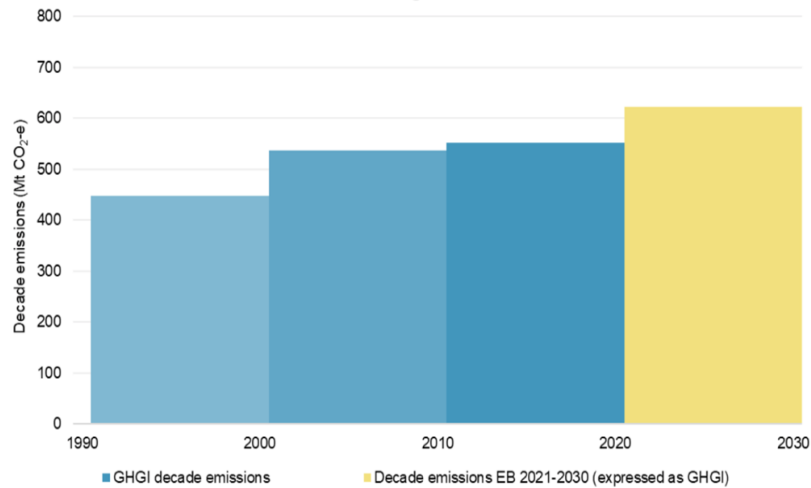
103. There are also other concerns with the integrity of Dr Taylor’s graphic which purports to present the Commission’s Budgets (the yellow block) in GHGI terms.¹⁴⁴

¹⁴² See the detailed discussion in Young at [31]–[66] COA 201.0190 at [[201.0197]]–[[201.0209]]: graphic appears at [43] [[201.0201]].

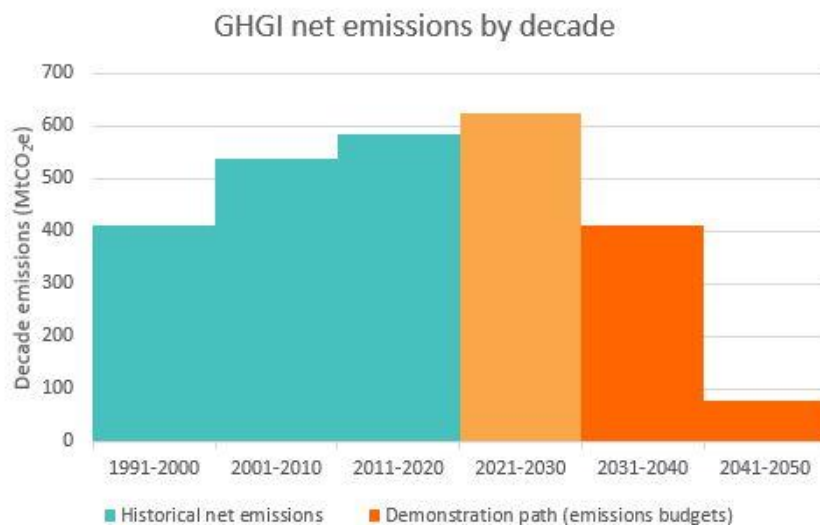
¹⁴³ Young at [44] COA 201.0190 at [[201.0201]].

¹⁴⁴ Taylor 1 at exhibit A COA 301.0069 at [[301.0095]].

Figure 4.4: Annual historic GHGI net emissions by decade 1991–2020 and CCC Emissions Budgets 2021–2030



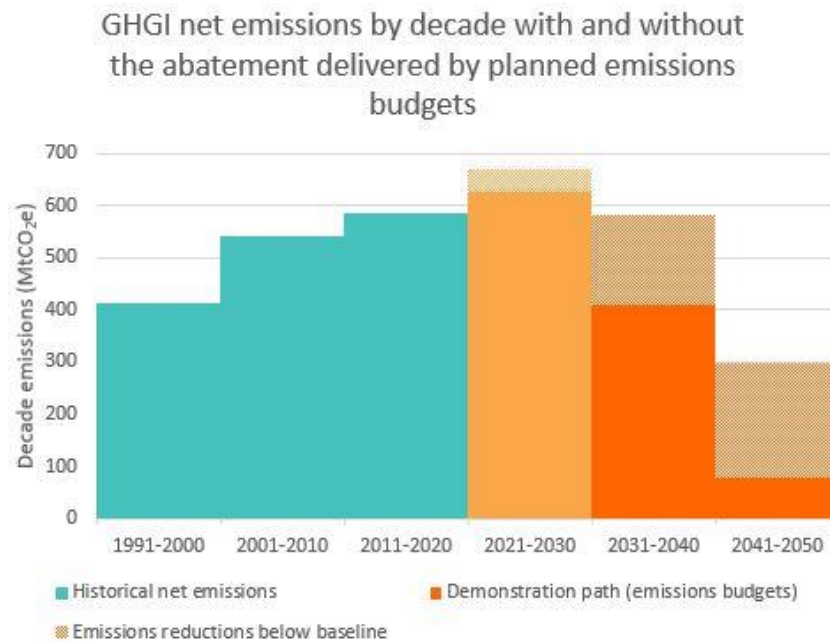
104. Dr Taylor’s graphic stops at 2030, entirely excluding the third budget period (2031 – 2035) where the emissions cuts are steeper, and projects back to 2020 despite the budgets commencing from 2022. Had the graphic extended past 2030 (when the tree cycle is peaking – see blue line above), the combined effect of the budget and the tree cycle would show a dramatic reverse in direction:¹⁴⁵



105. Dr Taylor also fails to recognise the impact of the budgets themselves. The only way to transparently demonstrate the level of ambition of the budgets in a GHGI context is to

¹⁴⁵ This schematic, and the schematic following, were produced using MPI’s projection of forestry under GHGI under current policies combined with the expected abatement in emissions under the Commission’s recommended budgets through to 2035 and, from 2035 onwards, the expected abatement under the Commission’s demonstration path.

compare them to the counterfactual – what would the projected emissions be without the proposed budget reductions?



Budgets using GHGI would be the same

- 106. The key point however is that the difference between MAB and GHGI is one of expression only. Changing the budgets to be expressed in GHGI will not change their ambition (in either absolute or comparative terms), although it will make the budgets very confusing to a non-expert.
- 107. By way of example (and using unreal numbers solely for the purpose of illustration): if the Commission wanted to propose a budget for period A that allowed the economy to emit 100 MtCO_{2e} net of all removals from sustained sources (ie other than the temporary removals from the repeating forestry cycle which will just be re-emitted later), then using MAB it would set a budget of 100 MtCO_{2e}.
- 108. Under LCANZ' GHGI approach the budget would also need to factor in the temporary removals from the forestry cycle, which in this budget period A are, say, 30 MtCO_{2e}. So to achieve the same level of ambition in terms of climate change action, the Commission would recommend the budget for period A as 70 MtCO_{2e} (100 - 30). The overall allowed emissions are the same however.
- 109. Then in period B the Commission wants to achieve a sustained cut in emissions to a lower level again, and allow for net emissions of 80 MtCO_{2e} not counting the temporary removals from the forestry cycle. But in this budget period the trees are growing fast

and forestry removals are now forecast to be 60 MtCO₂e, so to reflect the same level of ambition using GHGI the budget for period B has to be set at 20 MtCO₂e (80 – 60).

110. Then in the next period C, the Commission wants to achieve a further sustained cut in net emissions to 60 MtCO₂e, not counting the temporary removals from the forestry cycle. But now the trees are being harvested and the tree cycle removals are only 5 MtCO₂e. Under GHGI this budget has to be set at 55 MtCO₂e (60 – 5).

111. The level of ambition is the same - the Commission is recommending a budget for each period that reflects a 20 MtCO₂e real reduction in emissions from the one before. Using MAB the budgets would look like:

111.1 Budget A – 100 MtCO₂e

111.2 Budget B – 80 MtCO₂e

111.3 Budget C- 60 MtCO₂e

112. Under GHGI, the same budgets reflecting the same level of ambition would look like:¹⁴⁶

112.1 Budget A – 70 MtCO₂e

112.2 Budget B – 20 MtCO₂e

112.3 Budget C – 55 MtCO₂e

LCANZ GROUNDS OF APPEAL

113. LCANZ group their grounds of appeal under their pleaded grounds of review. Linking with the above discussion these submissions address these in the following order:

113.1 Ground 3: is GHGI prescribed by the CCRA so that MAB is unlawful?

113.2 Ground 2: did the Commission have proper regard to the 1.5°C purpose?

¹⁴⁶ Under GHGI the progress to meeting budgets would also be subject to considerable volatility arising from the timing of the forestry cycles. This is because while the cyclical *nature* of the sector is certain, the exact *timing* of when growers will choose to harvest and re-plant commercial forestry is difficult to predict with precision. These decisions can have a significant impact on New Zealand's total emissions and removals in a particular year, and consequently, on the ability to achieve emissions reduction targets based on GHGI in a particular year – if, for example, growers defer harvesting for a year or two due to market conditions targets will be missed, regardless of how well New Zealand is tracking on its real reduction of emissions: Advice **COA 401.0001** at [[401.0221]]; and Murray at [75] **COA 201.0219** at [[201.0244]].

113.3 Ground 4: are the recommended budgets unreasonable?

113.4 Ground 1: was there a mathematical error in the NDC Advice?

GROUND 3: THE CCRA DOES NOT REQUIRE BUDGETS TO BE SET USING GHGI

114. The above discussion briefly explains the substance of this issue. The alleged error of law however relates solely to an issue of statutory interpretation, and the extensive evidence from LCANZ' economist witnesses critiquing the merits of the Commission's selection of MAB is not relevant (as well as being strongly contested, outside their expertise, and contradicted by LCANZ' qualified witness¹⁴⁷).
115. Section 5ZA(1)(b) CCRA states that the Commission is to advise the Minister on "the rules that will apply to measure progress towards meeting emissions budgets and the 2050 target". The Commission's advice on this topic is in Chapter 10 of the Advice and Chapter 3 of the Supporting Volumes.¹⁴⁸ The Commission understood that the 'rules for measuring progress' includes the system of accounting for greenhouse gas emissions that will be used to track the progress New Zealand makes towards emissions reductions to the 2050 target, and it approached its task on from a first principles basis.¹⁴⁹
116. The Commission considered accounting methodology choices relating not only to how to account for the LULUCF sector, but also for example on the best approach to production or consumption-based emissions estimates,¹⁵⁰ and voluntary offsetting and carbon neutral claims.¹⁵¹ LCANZ' challenge relates only to the accounting methodology for LULUCF emissions and removals, but the basis of its argument – that the 'rules to measure progress' are about something other than accounting methodologies – would appear to encompass all the accounting rules that the Commission determined in its Advice.

¹⁴⁷ High Court at [305] **COA 05.0012** at [[05.0118]] referring to Forster 1 at [7] **COA 201.0007** at [[201.0009]]. See also the consistent and more expert views of Dr Olia Glade at [67]–[94] **COA 201.0098** at [[201.0112]]–[[201.0118]], and more generally Murray at [70]–[80] **COA 201.0219** at [[201.0241]]–[[201.0248]]; and Young at [27]–[66] **COA 201.0190** at [[201.0196]]–[[201.0209]].

¹⁴⁸ Advice **COA 401.0001** beginning at [[401.0215]] and **COA 402.0412** beginning at [[402.0474]]. See also Chapter 21 **COA 401.0001** beginning at [[401.0369]].

¹⁴⁹ Advice **COA 401.0001** at [[401.0216]]–[[401.0213]] and [[402.0476]].

¹⁵⁰ Advice **COA 401.0001** at [[401.0218]]–[[401.0219]]. Production-based accounting records greenhouse gases where they are released into the atmosphere; consumption-based accounting records greenhouse gases based on consumption of the good/service that led to their creation.

¹⁵¹ Advice **COA 401.0001** at [[401.0224]]–[[401.0225]].

The High Court Judgment

117. Justice Mallon sets out the statutory provisions at [218]–[228] and correctly identifies the issues at [229]–[230]. Her Honour reached the following conclusions:

117.1 As a matter of fact, emissions and removals under MAB are “as recorded in the Greenhouse Gas Inventory” in accordance with the definition of “net accounting emissions”.¹⁵²

117.2 The legislative history¹⁵³ shows that it was envisaged that the Commission would advise on the accounting methodology for measuring progress. Her Honour also observed:¹⁵⁴

... 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.

117.3 Accounting methodologies fall within the ordinary meaning of ‘rules’.¹⁵⁵

117.4 There was no ‘Henry VIII issue’ (noting also that MAB had in fact formed the basis for the 2050 target¹⁵⁶) and that in any event: “Parliament has clearly

¹⁵² See discussion in High Court at [231]–[240] **COA 05.0012** at [[05.0093]]–[[05.0097]].

¹⁵³ MfE *Regulatory Impact Statement: Zero Carbon Bill* (1 May 2019) [**Regulatory impact statement**] at 142 (which recorded at the Commission would advise the government on the accounting methodologies that would apply); MfE “Climate Change Response (Zero Carbon) Amendment Bill: initial briefing to the Environment Committee” (25 July 2019) [**Initial Briefing to select committee**] at [89] (which noted that the rules that apply to measuring emissions can change, and requiring the Commission to provide advice would ensure the institutional architecture was responsive to the latest developments and remain current); and Departmental Report at 60, 79 and 95 (which noted that the Commission’s advice would include advice on accounting methodologies, for example whether they would align with those for NDCs under the Paris Agreement or those used for the GHGI).

¹⁵⁴ High Court at [253] **COA 05.0012** at [[05.0101]] and quoting from [260] at [[05.0103]]. See also [272] at [[05.0106]]. It is equally unlikely that Parliament would have then (had it decided to remove this issue from the Commission):

- set those rules on an entirely different basis from the rules that New Zealand has always used to set its emissions reductions targets and report progress towards them;
- adopted a measure that is known to be unsuited to that purpose, and where the cyclical swings and volatility arising from GHGI would be wholly inconsistent with the Act’s purpose to provide “a framework by which New Zealand can develop and implement clear and stable climate policies” and budgets that provide “greater predictability” (CCRA ss 3(1)(aa) and 5W);
- set those rules in perpetuity (subject only to legislative amendment), despite it being a feature of international climate change good practice that accounting rules should evolve as science and understanding improves;
- and done so without any advice from officials to the select committee on that topic nor any public engagement or consultation on this issue.

¹⁵⁵ High Court at [259]–[261] **COA 05.0012** at [[05.0102]]–[[05.0103]].

¹⁵⁶ Advice **COA 401.0001** at [[401.0221]] and **COA 402.0412** at [[402.0495]].

authorised the Commission to advise on the accounting methodologies and the Minister to determine it.”¹⁵⁷

118. With respect, her Honour’s conclusion on this statutory interpretation question is obviously correct. The core way to ‘measure progress’ against an emissions reductions target is to measure emissions, so you can quantify and thus track how emissions have reduced over time.

LCANZ arguments on appeal and the Commission’s response

119. LCANZ primarily relies on the same arguments already rejected by the High Court, and merely disagrees with Justice Mallon’s conclusions (noting that LCANZ also appears to misdescribe her Honour’s approach¹⁵⁸). There is no error established.
120. LCANZ also raise a new argument on appeal, being that while the ‘definition’ of the Greenhouse Gas Inventory *now* refers to reporting under the UNFCCC, the Kyoto Protocol and the Paris Agreement (which uses MAB), at the time the Climate Change Response (Zero Carbon) Amendment Act 2019 was passed it did not refer to the Paris Agreement.¹⁵⁹ There are a number of problems with this argument.
121. First, the reference to “as reported in the Greenhouse Gas Inventory” in the definition of “net accounting emissions” is descriptive only, not a cross-reference to another definition. The CCRA does not in fact contain a ‘definition’ of the Greenhouse Gas Inventory in s 4. Rather, Part 3 sets up the ‘Inventory Agency’ and records at s 32 its primary function. It is here that the reference to the UNFCCC and Kyoto Protocol (and subsequently the Paris Agreement) are recorded.
122. Second, at the time that the Zero Carbon Amendment Act was passed, it was known and obvious that reporting against the NDC under the Paris Agreement would be added into the Inventory, but immediate amendment to s 32 may not have been seen as necessary as no reporting was required until 2023.¹⁶⁰
123. Third, the amendment to s 32 to include the Paris Agreement was in force when the Commission formulated and provided its Advice. There is no authority for the proposition that the Commission should have disregarded amendments to the

¹⁵⁷ High Court at [262]–[273] **COA 05.0012** at [[05.0103]]–[[05.0106]], quoting from [273] ([[05.0106]]).

¹⁵⁸ LCANZ submissions at [148].

¹⁵⁹ LCANZ submissions at [142] and [146].

¹⁶⁰ Brandon at [14.3]–[14.5] **COA 201.0324** at [[201.0328]].

legislation that occurred after the Zero Carbon Amendment Act was passed (noting the key references to the Paris Agreement in the CCRA purpose provisions relied on by LCANZ in Ground 2 were also introduced in the 2020 Amendment Act). On the contrary, standard principles of statutory interpretation make it clear that even if s 32 was read as part of the definition of “net accounting emissions”, then the amendment to s 32 effected an amendment to that definition as well.

124. Fourth, the argument does not in any event assist LCANZ’ proposition that Parliament mandated GHGI as the only available accounting methodology. Under this argument the Commission could equally have chosen the NDC aligned Activity-based methodologies used for reporting under the Kyoto Protocol.

GROUND 2: BUDGETS ALIGNING WITH THE 1.5°C PURPOSE

125. The Commission’s Advice gave extensive consideration to setting budgets that would contribute to the 1.5°C goal. Its analytical processes are broadly described in Chapters 4 and 5 of the Advice, and summarised in the following table:¹⁶¹

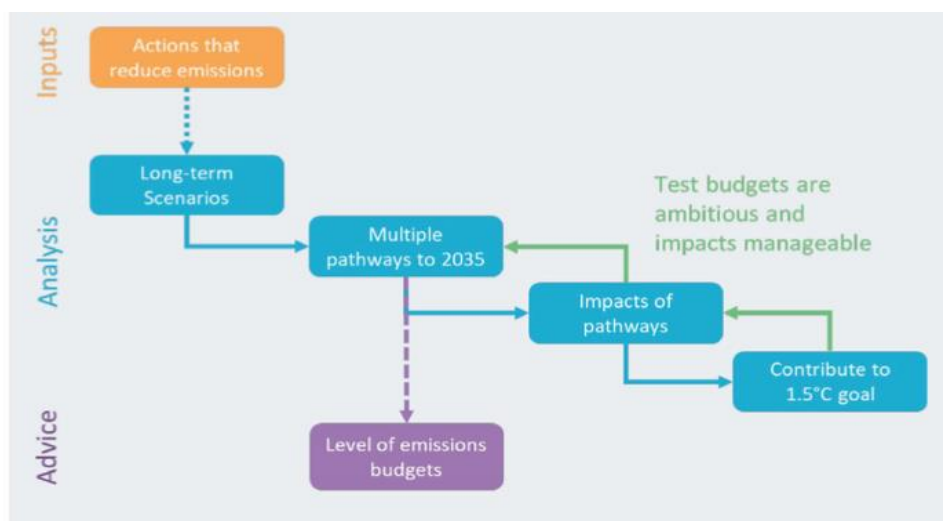


Figure 4.2: Stages of analysis for developing the Commission’s advice.

126. The 1.5°C goal was thus built into the Commission’s budget building process,¹⁶² but the Commission also ‘stood back’ and undertook a detailed stand-alone assessment of the budgets’ compatibility with contributing to the 1.5°C goal in Chapter 9 (including

¹⁶¹ Advice **COA 401.0001** at [[401.0071]].

¹⁶² See for example: Advice **COA 401.0001** at [[401.0082]], [[401.0086]]–[[401.0087]], [[401.0091]] and [[401.0143]].

comparison with the IPCC global pathways), concluding that they were compatible with that objective.¹⁶³

127. LCA NZ description of what the Commission did and how it went about its task is not accurate.

High Court Judgment

128. Following an analysis of the statutory provisions, the legislative history, the obligations under the Paris Agreement and the Commission's Advice, Justice Mallon rejected LCA NZ' challenge. Importantly her Honour confirmed that:¹⁶⁴

It is ... 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 ... it is not the case that the emissions budgets could only be consistent with the IPCC 1.5°C pathways in order to be consistent with the 1.5°C global effort.

129. And concluded at [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 ss 5M and 5ZC] 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.

130. As Justice Mallon noted later in the Judgment, it is also important to bear in mind that Parliament did not set an interim 2030 target for greenhouse gases other than biogenic methane (for which an interim target was set¹⁶⁵), despite submissions to the select committee proposing that it should.¹⁶⁶ This speaks strongly against an interpretation that would 'read in' a mandatory stand alone 2030 target for all other greenhouses gases through the purpose provisions instead.

LCA NZ position and the Commission's response

131. LCA NZ' claim that the Commission's approach was unlawful appears to be based on reading into the statutory purpose in s 5W an entire analytical sequence, which it says

¹⁶³ See Chapter 9 of the Advice **COA 401.0001** beginning at [[401.0204]]. And Table 9.1 (at [[401.0212]]) for a summary comparison between the proposed budgets and the IPCC pathways.

¹⁶⁴ High Court at [180] **COA 05.0012** at [[05.0077]].

¹⁶⁵ CCRA, s 5Q.

¹⁶⁶ High Court at [306] **COA 05.0012** at [[05.0118]]. Departmental Report at 60 referring to submitters views that there should also be a 2030 interim target for 'all other gases', including to "Allow early emissions reductions to be prioritized as a contribution to the global response".

that the Commission was *obliged in law* to follow. That sequence is quite prescriptive:¹⁶⁷

131.1 First, the Commission should have directly ‘applied’ the IPCC global pathways to set the ‘required’ domestic target as a starting point;

131.2 Then it should have undertaken the same assessment of national capacity and international equity that the Minister engages in in setting the NDC – essentially proposing that the Commission should set its own NDC for each budget period;

131.3 But that assessment cannot justify a reduction from the required target starting point except “as needed to be consistent with the principles of the Paris Agreement.”

132. The above discussion on the IPCC Special Report and the inapplicability of the global pathways to domestic budgets is central here: LCA NZ argument under this ground of review is predicated on a fundamental error. Neither the Paris Agreement nor the 2018 IPCC Special Report contemplate that domestic budgets and targets will be based on the IPCC global pathways, and *all* of the qualified experts who comment on this issue (including those giving evidence for LCA NZ) agree that this is not an intended or appropriate use of the IPCC pathways.¹⁶⁸

133. In addition, as noted above, the obligations under the Paris Agreement are to *communicate* an NDC, and it does not require New Zealand to set its NDC (or its domestic budgets) at any particular level or with reference to any benchmark or guidance.¹⁶⁹ LCA NZ’ proposed approach represents only its own policy view on how budgets should be set, not international law or practice, and there is no basis to read it into the purpose provisions of the CCRA.

134. Nor would the process LCA NZ say is required meet the actual requirements of the CCRA. Critically, it does not take into account *or allow room for* the potential impact of the mandatory relevant considerations listed in ss 5M and 5ZC. The legislative history however is clear that Parliament intended the mandatory considerations to play a central role in setting the Budgets: while the goal of the budgets is to get New Zealand to the 2050 target, the ‘how’ this was to be done – the steepness of the slope of

¹⁶⁷ LCA NZ submissions at [98]–[105]. See also High Court at [161] setting out LCA NZ’ asserted ‘mandatory’ process in more detail **COA 05.0012** at [[05.0069]].

¹⁶⁸ See above paragraphs 78 to 80 and evidence referred to there.

¹⁶⁹ See above paragraphs 74 and 77 and fn 108

emissions cuts for each specific budget period – was to be determined in light of the mandatory considerations, and especially the ‘central tenet’ of a just transition.¹⁷⁰

135. LCANZ’ proposal in ‘step 2’, that the Commission should replicate the Minister’s task in setting an NDC, is also problematic given the explicit statutory carve out from the Commission’s independence in s 50, which requires the Commission to have regard to Government policy in that context. It is highly unlikely that Parliament, having taken extraordinary steps to ensure the Commission’s independence,¹⁷¹ would then open the Commission to government direction on what would under LCANZ’ formulation be a central aspect of setting the emissions Budgets.
136. The legislative history is also clear that Parliament did not intend to prescribe in any way the analytical process by which the Commission was to set its recommend Budgets.¹⁷² And proposals from submitters in the select committee process (including LCANZ¹⁷³) to require the Commission to set Budgets linked to the NDC or the IPCC Report were not accepted.
137. Similarly, there is no requirement in the CCRA for the Commission to undertake any particular cost benefit assessment,¹⁷⁴ and the evidence of Dr Carr and Dr Toman explain

¹⁷⁰ Climate Change Response (Zero Carbon) Amendment Bill 2019 (136–1) (explanatory note) [**Explanatory note**] at 1 (emphasising the importance of a just and inclusive society and consideration for how impacts are distributed); Regulatory impact statement at 3 (discussing the objective of a just and inclusive society); MfE *Departmental Disclosure Statement* (3 May 2019) at 3 (highlighting the need to consider distributional impacts); and Departmental Report at 74 and 21 (recording that the ability to deliver a just transition was one of the “central tenets” of the Bill).

¹⁷¹ In addition to s 50 of the CCRA, the process for appointing Commissioners has been very clearly distanced from the government of the day: ss 5E–5H. The requirement for cross-party consultation in particular is rare and features in the appointment process of only a handful of positions where public confidence in independence and the need for a long-term viewpoint are seen as critical: the Board of the Guardian of New Zealand Superannuation, the Board of the Reserve Bank, and the Public Service Commissioner and Deputy Commissioners: New Zealand Superannuation and Retirement Income Act 2001, s 56; Reserve Bank of New Zealand Act 2021, s 30; and Public Service Act 2020, ss 42 and 47.

¹⁷² Explanatory note at 1 and 4–5 (describing the importance of the regime being flexible and responsive to changing circumstances); and Departmental Report at 49 (explaining the importance of the Commission exercising its expert judgement to determine the best approach to the budgets advice) and at 73 (where officials noted explicitly that the Bill did not prescribe the process for preparing advice on emissions budgets).

¹⁷³ LCANZ submitted to the select committee that the Bill be amended to make the IPCC reports the mandatory ‘starting point’ for setting the budgets: Lawyers for Climate Action *Submission to the Environment Committee on the Climate Change Response (Zero Carbon) Amendment Bill* (15 July 2019) at 4.

¹⁷⁴ Noting that the Courts have cautioned against requiring decision-makers to carry out quantitative analysis in the absence of an express direction to do so, and warn against “false scientism” overtaking the judgements required by legislation: see *Movement* (HC) at [202]–[205].

why that would not be a sensible approach in any event.¹⁷⁵ Nor is the substance of the criticism correct: ‘how fast’ was the key issue that the Commission was addressing in its Advice, and its Advice and demonstration path reflect this focus.

138. It is also noted that LCANZ at [126] selectively quotes and misrepresents the evidence of Matthew Smith. Mr Smith in this part of his evidence was not talking about “the lens” that the Commission applied in setting the Budgets, as LCANZ asserts. Mr Smith is responding to Professor Sims’ evidence, *agreeing* with the Professor that there is a need for urgent action, but going on to say (emphasis added):¹⁷⁶

Finally, if the sense of Professor Sims evidence is that the urgency for an effective global response should drive New Zealand towards reducing its emissions faster, without regard to any other considerations, I would not agree. New Zealand reducing its emissions faster will not change the global impacts of climate change to any material degree. We are \approx 0.17 percent of global emissions and no matter how fast we cut our emissions, we will not change the impacts felt. We must reduce our emissions for many good reasons, including to contribute to a global collective action problem and to motivate other countries to also contribute, but there is no causal link between the speed in which we reduce emissions and the impacts of climate change felt by us or by anyone else.

Trans-Tasman Resources and Port Otago

139. LCANZ’ prescriptive analytical process that it says is required by law appears to be derived from the Supreme Court decision in *Trans-Tasman Resources*, but that case is very different from the present.¹⁷⁷ The Supreme Court in *TTR* was considering a specific statutory purpose in the context of a consenting decision under the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012. The majority considered that one aspect of the statutory purpose (in s 10(1)(b)): “to protect the environment from pollution by regulating or prohibiting the discharge of harmful substances...” amounted to an environmental bottom line, meaning that if it was not met, then consent must be declined. The budget process under the CCRA is not a binary decision of that kind, and the objective of ‘contributing to the 1.5°C global effort’ cannot be seen as some sort of absolute requirement that can be ‘met’ or ‘not met’ – especially not within the framing of an individual budget period.
140. Having found a ‘bottom line’ the majority in *TTR* set out a basic decision tree for a

¹⁷⁵ Carr at [71]–[91] **COA 201.0249** at [[201.0266]]–[[201.0271]]; and Toman at [15]–[28] **COA 201.0089** at [[201.0092]]–[[201.0096]].

¹⁷⁶ Smith [172]–[176], quoting from [176] **COA 201.0140** at [[201.0188]].

¹⁷⁷ *Trans-Tasman Resources Ltd v Taranaki-Whanganui Conservation Board* [2021] NZSC 127, [2021] 1 NZLR 801.

decision-maker to follow to give effect to that,¹⁷⁸ but notably the Court did not purport to direct anything like the analytical processes to be undertaken by the decision-maker that LCANZ says is required by law here.

141. The majority's approach in *TTR* is also firmly based on the wording of s 10(1)(b) of the EEZ Act, and does not purport to lay down any principle of general application to other expressions of statutory purpose. This is clear from the judgment, where the majority endorsed the broader and contrasting 'overall judgement' approach of the minority in respect of the *other* limb of the purpose statement, s 10(1)(a), stating that for step three of the decision-tree (once the bottom line in s 10(1)(b) had been met) the decision-maker:¹⁷⁹

should perform a balancing exercise taking into account all the relevant factors under s 59, in light of s 10(1)(a), to determine whether the consent should be granted.

142. This is the correct approach to ss 3 and 5W of the CCRA in the context of advice relating to the Budgets (though given the subject matter, the process is far more complex than a mere 'balancing exercise'). This more orthodox approach is also consistent with the Supreme Court's earlier decision in *Environmental Defence Society v The New Zealand King Salmon Co Ltd*, where the Court held that the more broadly worded purpose statement in the RMA (equivalent to s 10(1)(a) of the EEZ Act) was *not* an operative decision making provision, rather it reflects the Act's overall objectives.¹⁸⁰
143. The Court in *Port Otago* was not considering a purpose statement at all, but rather engaging with a statutory requirement that the decision maker "give effect to" the New Zealand Coastal Policy Statement.¹⁸¹ Even in that context, however, the Court was careful to make it clear that it was *not* setting out the content of a prescriptive analytical process that must be followed.

GROUND 4: BUDGETS UNREASONABLE

144. While the Commission supports the conclusion reached by Justice Mallon on this ground, it does not support the approach taken by her Honour which focused on whether the Commission's views were "appropriate".¹⁸² Should this Court uphold that

¹⁷⁸ *Trans-Tasman Resources Ltd v Taranaki-Whanganui Conservation Board* [2021] NZSC 127, [2021] 1 NZLR 801, see [3]–[5].

¹⁷⁹ At [5].

¹⁸⁰ *Environmental Defence Society v The New Zealand King Salmon Co Ltd* [2014] NZSC 38, [2014] 1 NZLR 593 at [151].

¹⁸¹ *Port Otago v Environmental Defence Society Incorporated* [2023] NZSC 112 [2023] NZSC 112, referring to s 62(3) of the Resource Management Act 1991.

¹⁸² High Court at [280] **COA 05.0012** at [[05.0108]].

approach, then the Commission supports Justice Mallon’s conclusions that its Advice was reasonable, even on this basis.

145. LCAZ’ submissions on this point of appeal are brief, and rely on the ‘headline’ figures which they say can be derived by applying GHGI methodologies. They wrongly claim that such figures mean that there is in fact no ambition in the Budgets, and that the Budgets accordingly “nonsensical” and “fly in the face of the uncontested need for urgent action ...”.¹⁸³
146. However, while these ‘headlines’ are catchy, they say nothing about the level of real change proposed in the budgets: GHGI simply hides real (sustained) reductions and ambition behind the fluctuations of the repeating tree cycle.
147. The difference in this context between MAB target accounting (measuring sustained change in emissions reductions) and GHGI (what the atmosphere ‘sees’ year by year) can be illustrated by considering how to measure sea level rise. If the sea level is measured on a beach one day at low tide, then a month later at high tide, the measure might show the sea has risen 3 metres. That is a catchy headline – sea level rises 3 metres!
148. It is ‘true’ in the sense that the measurements are accurate and it is ‘what the beach saw’. But is it false, because the tide is going to go out again: the repeating tidal cycle tells us nothing about what is really happening with sea level rise. If you wanted to measure this accurately by measuring what happens on a beach, you would have to find a way to neutralise out the repeating tides – for example using mean high tide measures. That is what target accounting does: it neutralises out the repeating tree cycles to gain a more accurate picture of sustained changes to emissions.
149. If the Commission’s budgets are to be judged through a GHGI lens, then to have integrity the analysis must also recognise the reality that these figures represent, rather than treating them as ‘shock’ headlines.

GROUND ONE: LOGICAL/MATHEMATICAL ERROR IN NDC ADVICE

The pleaded claim and the Commission’s response

150. The Minister’s decision setting the NDC under the Paris Agreement is the exercise of a Royal prerogative and sits outside the CCRA. The Commission has no role in advising on

¹⁸³ LCAZ submissions [16(a)] and [160].

the NDC unless specifically requested by the Minister to do so under s 5K. On this occasion the Minister asked the Commission to advise whether the NDC was compatible with the global effort to limit warming to 1.5°C, and if not, what changes were necessary.

151. The Commission describes its approach in Chapter 21 of the Advice and Chapter 13 of the Supporting volumes. As Matthew Smith explains, there was (and is) no ready-made methodology or even guidance that the Commission could adopt to make this assessment. The Commission was required to ‘start from scratch’ and exercise its own expert judgement as to the analytical approaches that might be useful for it in undertaking this task.¹⁸⁴
152. LCA NZ’ experts who are qualified on these matters similarly confirm that the Commission was not obliged to use the IPCC pathways for this purpose, and Dr Rogelj went further and expressed strong reservations about such an approach overall.¹⁸⁵ Dr Reisinger for the Crown is equally clear that there was no single correct way to assess what level of emissions reduction in New Zealand’s NDC would be compatible with the global 1.5°C pathways.¹⁸⁶
153. The scope of judicial review in this context is accordingly narrow, and LCA NZ’ pleaded ground of review appropriately reflects that: under the heading “Logical Error in Application of 2018 Special Report (Error of Law and Irrationality)” it pleads that the Commission made a logical error in applying the 2030 *Net* Carbon Dioxide Interquartile Range in the IPCC pathways to the 2010 level of *gross* carbon dioxide emissions, to *calculate* what was required to give effect to the IPCC Report conclusions. It then pleads that *as a result of this logical error*, the NDC Advice is unlawful and irrational.¹⁸⁷
154. LCA NZ says that the error is simple: because the IPCC global pathways are net-net, it was a mathematical error to apply them to a gross-net NDC target.¹⁸⁸ While an

¹⁸⁴ Smith at [62] **COA 201.0140** at [[201.0158]].

¹⁸⁵ Forster 2 at [4], [13] and [26]–[27] **COA 201.0420** at [[201.0422]], [[201.0424]] and [[201.0427]], where Professor Forster accepts there is no one way to set an NDC, nor a requirement to follow the Special Report 1.5°C pathways and notes that it was the Commission’s choice to use the Special Report as a starting point; and Rogelj 1 at [12] **COA 201.0060** at [[201.0062]] where he points to the limitations of the use of global emissions pathways in the domestic context (consistent with this, see Matthew Smith’s discussion of the limitations of using the IPCC pathways to assess New Zealand’s national NDC (Smith at [71]–[72] (**COA 401.0140** at [[201.0160]]–[[201.0162]]) and his response to Dr Rogelj on this point at [12]). Also see Wuebbles 2 at [14] **COA 201.0390** at [[201.0393]].

¹⁸⁶ Reisinger 1 at [22]–[39] at [60]–[67] **COA 201.0283** at [[201.0290]]–[[201.0297]] and [[201.0306]]–[[201.0310]].

¹⁸⁷ 2ASOC [82], [84], [88] and [94] **COA 101.0144** at [[101.0156]] to [[101.0158]].

¹⁸⁸ Gale 1 at [16] **COA 201.0001** at [[201.0004]]; Gale 2 at [17] (**COA 201.0429** at [[201.0432]]).

economist, Dr Gale appears to be the ‘lead’ expert for LCANZ on this issue.¹⁸⁹ His evidence is clear that he assumes that the Commission was engaged in a mathematical exercise where it directly “applied” the IPCC pathways to the NDC in some sort of mathematical calculation.¹⁹⁰ LCANZ’ other witnesses repeat that same assertion: Dr Taylor describes the issue as a matter of basic algebra; while Dr Bertram says it basic logic. LCANZ in submissions confirms that what is alleged is “a basic error of mathematics”.¹⁹¹

155. Irrationality in this sense of a basic mathematical or logical error in an analytical process can be a valid ground of review: the issue for the Court is whether as a matter of fact, this is what occurred. Justice Mallon found it did not.¹⁹²
156. This accords with the evidence: the Commission was not engaged in a calculation or a mathematical or algebraic exercise. As Matthew Smith sets out in detail in his affidavit, the Commission was using the IPCC pathways as a foundation for modelling to generate comparator NDCs which it knew would be inexact (a ‘blunt’ approach, as the Commission records in its Advice¹⁹³).¹⁹⁴ It used those *indirect comparators* to compare the (then) NDC against what it assessed to be a reasonably estimated approximation of the required global reductions needed to reach the 1.5°C goal.¹⁹⁵
157. The Commission knew that it faced a challenge given that the IPCC global pathways were all net-net but the NDC set by the government was on a gross-net basis. That was not the only complexity the Commission faced in working out a way to use the IPCC pathways to model comparator NDCs, as Matthew Smith explains.¹⁹⁶ Other major complications included that the global pathways reflected the global emissions profile that was very different to New Zealand’s emissions profile, and in no way reflected New Zealand’s rather unique national circumstances (especially in our energy generation,

¹⁸⁹ Wuebbles 1 at [7] – [8] **COA 201.0012** at [[201.0014]]; Wuebbles 2 at [13] **COA 201.0390** at [[201.0393]]; Forster 1 at [4] and [8] (**COA 201.0007** at [[201.0008]] and [[201.0009]]; and Rogelj 1 at [7] and [11] (**COA 201.0060** at [[201.0062]] confirm they have been asked to opine on [16] of Gale’s affidavit (**COA 201.0001** at [[291.0004]]).

¹⁹⁰ Gale 1 at [16] **COA 201.0001** at [[291.0004]], Gale 2 at [11], [17], [22], [23a], [23.c] and [24] **COA 201.0429** at [[201.0431]], [[201.0432]], [[201.0433]], [[201.0434]] and [[201.0435]].

¹⁹¹ LCANZ submissions at [80]; Taylor 2 at [5.a] **COA 201.0436** at [[201.0438]]; Bertram 2 at [35] **COA 201.0394** at [[201.0403]].

¹⁹² High Court at [127] **COA 05.0012** at [[05.0057]].

¹⁹³ Advice **COA 401.0001** at [[401.0374]].

¹⁹⁴ Smith at [56]–[95] **COA 201.0140** at [[201.0156]]–[[201.0169]].

¹⁹⁵ Smith at [61] **COA 201.0140** at [[201.0158]].

¹⁹⁶ Smith at [71]–[72] **COA 201.0140** at [[201.0160]]–[[201.0162]].

agricultural and land sectors), and that the pathways were ‘split gas’ where as New Zealand’s NDC was an ‘all gas’ commitment.

158. In other words, the Commission knew it was comparing an orange (the NDC) with a range of apples (the IPCC pathways), but that is what it had before it to work with.¹⁹⁷
159. As Matthew Smith outlines, the Commission developed an analytical process and made a series of decisions and judgements on how to address those challenges. In the end the Commission was satisfied that while ‘blunt’ and far from direct comparators, the modelled NDC comparators were useful as “a starting point, based on scientific modelling, for addressing the question of whether the NDC is compatible with contributing to the 1.5°C goal.”¹⁹⁸
160. As Dr Carr also confirms, the Commission was well aware of this particular gross-net vs net-net issue, both from its own analysis and because LCA NZ raised the point in response to the draft Advice (LCA NZ subsequently raised it again with the Minister).¹⁹⁹ The Commission assessed and tested its rationale and made a deliberate judgement that its approach was reasonable.²⁰⁰
161. The Commission’s approach to how to use the net-net global IPCC global pathways to inform its advice on the gross-net NDC was not a matter of algebra, but a matter of modelling to establish a range of approximate comparators informed by expert and specialist judgements fully within the area of its expertise. There was no error of logic.
162. Both Dr Olia Glade (independent expert and the most qualified expert on climate change accounting before the Court) and Dr Reisinger for MfE affirm that this was not a mathematical exercise and that no error of logic was made.²⁰¹ LCA NZ evidence is briefly addressed above,²⁰² and falls far short of showing any error let alone one that is

¹⁹⁷ Smith at [99] **COA 201.0140** at [[201.0170]].

¹⁹⁸ Advice **COA 401.0001** at [[401.0374]].

¹⁹⁹ LCA NZ raised the alleged mathematical error both in writing and in a one-to-one meeting with the Commission on this topic: Hendy at [79]–[80] **COA 201.0119** at [[201.0135]]–[[201.0138]]. LCA NZ also raised this with the Minister following his receipt of the Commission’s Advice (Hendy [81], **COA 201.0119** at [[201.0138]]), and this point was addressed in the advice from the Ministry for the Environment: Shaw at [24]–[34] **COA 201.0371** at [[201.0381]]–[[201.0384]]. LCA NZ must presumably argue that MfE made the same error of logic as well.

²⁰⁰ Carr at [58] **COA 201.0249** at [[201.0263]]; and Smith at [15] **COA 201.0140** at [[201.0145]].

²⁰¹ Glade at [19]–[23] **COA 201.0098** at [[201.0101]]–[[201.0102]]; and Reisinger [22] and [60]–[84] **COA 201.0283** at [[201.0290]] and [[201.0306]]–[[201.0315]].

²⁰² Above at paragraph 152 and footnote 185. Noting LCA NZ claim at [56] of their submissions that these witnesses are “*the* leading witnesses in the world” is a significant overstatement.

'incontrovertible'.²⁰³

The High Court Judgment

163. While agreeing with the ultimate conclusion, the Commission has a number of concerns with the High Court Judgment on this ground, the more substantive of which are outlined in the notice to support on other grounds. Respectfully, her Honour has fallen into the error of assuming that the Commission was engaged in a mathematical exercise or a calculation, but more importantly she has incorrectly assumed that it was *possible* to mathematically apply the IPCC global pathways to New Zealand's NDC. This seems to be the foundation for her concern that the Advice had the potential to be misleading, and that it would have been more transparent for the Commission to undertake a 'value free' mathematical application of the IPCC global pathways and then subsequently adjust the outcome to accommodate value judgements.²⁰⁴
164. The Commission's Advice and the expert evidence of both respondents are however clear that there is *no way* to directly or mathematically 'apply' the IPCC global pathways to an individual country's emissions targets, and that *all* approaches to assessing compatibility with reference to the IPCC pathways are indirect and involve value judgements. As Dr Reisinger explains:²⁰⁵
- Most of the affidavits filed by the applicant's experts assume there is only one 'scientific' way to calculate what level of emission reductions in New Zealand's NDC would be compatible with global 1.5°C pathways, based on calculating percentage rates of reduction of net greenhouse gas emissions. I consider this assumption is flawed and underlies the applicant's view that the NDC decision is based on a "mathematical error". Every attempt to map a country-level target onto a global pathway relies on value judgements that determine the approach taken; there is no value-free scientific or mathematical way that would then be modified only subsequently by value judgements.
165. Respectfully, her Honour was in error in her approach, and her criticisms of the Commission's Advice on this topic were accordingly unfounded.

²⁰³ Noting LCANZ' most qualified witness, Professor Forster, does not assert that there has been a logical or mathematical error, rather he considers that the Commission's approach was not correct in terms of how to assess compatibility: Forster 1 at [8]–[16] **COA 201.0007** at [[201.0009]]–[[201.0010]]. In *reply* Professor Forster reframes his opinion and identifies what he claims is an internal inconsistency, but this appears to be based on a misreading of the Commission's Advice: Forster 2 at [2] and [13]–[14] **COA 202.0420** at [[201.04321]] and [[201.0424]]. Dr Rojeli and Professor Wuebbles do not appear to have read the Commission's Advice on this point, instead their evidence is addressed to a hypothetical question of how they would have approached a hypothetical problem that was very different from the task the Commission was undertaking: Smith at [116] and [124]–[125] **COA 201.0140** at [[201.0174]]–[[201.0176]]. These views are not relevant to the issue before the Court.

²⁰⁴ High Court at [115]–[127] **COA 05.0012** at [[05.0052]]–[[05.0057]].

²⁰⁵ Reisinger 1 at [22] **COA 201.0283** at [[201.0290]]; Glade at [38]–[45] **COA 201.0098** at [[201.0105]]–[[201.0108]]; and Smith at [65] and [98] **COA 201.0140** at [[201.0159]] and [[201.0170]].

Other points raised by LCANZ in submissions on appeal

166. LCANZ in submissions incorrectly describes the High Court’s findings in a number of respects. Her Honour did *not* find that there had been an error in the Commission’s advice on compatibility (logical or otherwise) that was then ‘cured’ because the Minister was not misled.²⁰⁶ Her Honour held that there had been no error. Her obiter commentary about how a lay person “or anyone without the time to read the Advice in full” might be misled was to do with transparency, not error.²⁰⁷
167. LCANZ statement at [66] that “Many of the Respondents’ witnesses express the view that applying the 2018 Special Report global pathways to our 2010 net CO2 would “penalise” New Zealand or create an “undue burden” is also wrong. None of the Commission’s witnesses make that claim and this did not feature in the Commission’s Advice. The only reference to that concept appears in the second respondent’s evidence as part of a quoted extract from *MfE* advice to the Minister, referred to in Dr Reisinger’s and the Minister’s affidavit.²⁰⁸

RELIEF

168. LCANZ appear not to seek any orders against the Commission other than very broadly worded declarations of unlawfulness.²⁰⁹ Relief is of course in the discretion of the Court but it is respectfully submitted that the proposed declarations are so broad as to lack any utility.
169. The Commission seeks costs.

²⁰⁶ As LCANZ appears to claim at [54], [68] and [79]–[81] of their submissions.

²⁰⁷ High Court at [127] **COA 05.0012** at [[05.0057]].

²⁰⁸ Reisinger at [65] **COA 201.0283** at [[201.0309]]; and Shaw at [16] **COA 201.0376** at [[201.0376]].

²⁰⁹ LCANZ submissions at [164]; and Notice of Appeal at [2] **COA 05.0001** at [[05.0005]].