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POWERING A BETTER NEW ZEALAND TOGETHER

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Climate Change Commission
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Submission on Climate Change Commission's draft advice on the second Emissions Reduction Plan (2026-2030)

Introduction

1. Energy Resources Aotearoa is New Zealand's peak energy advocacy organisation. Our purpose is to enable collaboration across the energy sector through and beyond New Zealand's transition to net zero carbon emissions in 2050.

2. This document constitutes our submission on the Climate Change Commission's (the **Commission**) draft advice on the Second Emissions Reduction Plan (2026-2030).

Summary

Gross reductions and removals

3. We disagree with the Commission's continued focus on gross reductions rather than net emissions and believe this is inconsistent with the legislative framework. We are concerned that the sectoral emissions budgets approach is evolving from a demonstrative exercise into a determinative or prescriptive exercise that was specifically not intended or envisaged in the legislation.

4. The uncertainty created by continued commentary on this point is severely undermining investment confidence in the transition and the achievement of its goals. Speculation on the Commission's rolling advice and on the Government's responses is driving volatility in carbon prices. We therefore agree this debate needs to be resolved through the ongoing ETS review. Bipartisan clarity must be reached about New Zealand's approach to net and gross emissions, and the role the ETS is expected to play in this.

Energy and industry

5. The Commission should drop its proposed ban on new gas connections, on the basis it closes off low emissions options; targets a very small emissions 'prize'; could accelerate – rather than protect against – asset stranding risk; and pre-empts the completion of the Gas Transition Plan.

6. The Commission's final advice should recommend that the Government put in place an enabling regulatory framework for carbon capture, utilisation, and storage (CCUS) by the end of the second emissions budget period, and sooner if practicable. Carbon capture enables gross emissions reductions at source (made more urgent if the Commission's focus on gross emissions is adopted) and could create opportunities such as repurposing carbon into sustainable aviation fuels.

Forestry

7. Given its strident commentary about the risk of over-reliance on forestry, we think the Commission should provide much more specificity about what it considers 'over-reliance', and about the overall role it sees for forestry in the transition.

8. Several significant recent developments are softening investment incentives for carbon forestry, and we see good reason to expect new registrations in the ETS to fall short of the upper limits concerning the Commission. At the very least, caution should be taken before significantly overhauling investment settings for carbon forestry.

Transport

9. We support the Commission's focus on addressing barriers to charging infrastructure roll-out. Our recent submission on the draft National EV Charging Strategy provides suggested principles to guide government's role in this space.[1]

10. We caution against setting a phase-out date for ICEs. This creates the risk of further intervention to achieve it and could constrain optimisation by forcing emissions reductions where they are otherwise not economic. The target date would have to be set based on assumptions and forecasts that may not be borne out over time.

11. We suggest the draft advice could highlight more clearly the range of future fuels opportunities emerging in aviation and shipping – including methanol for shipping, and low-emission fuels derived from captured and repurposed carbon.

Part 1: Fundamentals for success

Gross reductions and removals

12. We note the Commission continues to advocate for a focus on gross emissions reductions, meaning offsets (i.e., land use change, forestry, other sequestration, and/or offshore mitigation) are limited. We also note public comments from the Commission's Chair that New Zealand cannot simply "plant and pollute", and his

[1] Our submission on the Charging our Future: A Draft Long-Term Electric Vehicle Charging Strategy consultation document is available at:: https://www.energyresources.org.nz/dmsdocument/238

assertion that other countries are "becoming increasingly sceptical about the use of offsets at all".

13. We believe the Commission is going beyond its legislated mandate by arguing for an outsized focus on gross emissions. We are concerned that sectoral gross emissions budgets – intended to be *demonstrative* – are now being used as the fundamental basis for its advice on ETS settings and emissions reduction plans, thereby making these sector budgets *determinative*.[2]

14. We prefer the international and domestic goals of net zero as these are set out in the Paris Agreement and Climate Change Response Act 2002. The net zero emissions goal reflects the bipartisan political consensus that in some cases emissions cannot be eliminated without incurring excessive costs. It is better for New Zealand to offset these emissions, with the net result for the global climate being the same. While offsetting in theory slows efforts to reduce gross emissions at their source, this functions as a 'bridge' to technology being available and affordable to reduce gross emissions later. We worry this point is presently underweighted in the prevailing climate policy debate and in the Commission's advice.

15. The debate is not binary – it is about ensuring the NZETS helps drive the optimal balance between reductions and removals consistent with the net target. Our preference is that forestry remains within the ETS, even if changes at the margins are required to ensure it is politically sustainable. We believe that the 'right' balance between reductions and removals should be driven by the aggregate preferences of consumers and businesses, rather than central policymakers. Offsets of course should not unduly delay gross reductions where these are economic, but they remain an essential 'pressure valve'. We are concerned the Commission's advice goes too far in the other direction on these points.

16. In any case, continued commentary on this issue is clearly undermining the long-term investment confidence needed to support the low-emissions transition. We agree with the Commission that long-term clarity is now required on the intended balance between gross reductions and removals, and consequentially the expected role of forestry. Resolving this fundamental policy debate is now a critical priority.

17. The Government's current ETS review will go some way to surfacing the issues and encouraging an open debate on this issue. We are hopeful, though, that the Commission itself will also provide more specificity in terms of its own expectations. This includes specifying what 'over reliance' on offsets and forestry might entail (and exploring the socio-economic consequences of 'under reliance' for a full picture).

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[2] We refer the reader to section 3.2 of the report from Castalia "2035/2050 Vision for Gas" available at: https://www.energyresources.org.nz/dmsdocument/237

Industrial allocation

18. The draft advice reiterates the Commission's view that industrial allocation is not consistent with New Zealand's 2050 net zero target, and settings are not proportional to the risk of emissions leakage. We note the Commission believes industrial allocation should cease as early as 2037, and most of the figures in its advice presuppose this position wins out.

19. We strongly disagree. Industrial allocation protects property rights as at the introduction of the ETS and importantly is a critical lever to mitigate the very real risk of emissions leakage. It preserves industrial activity in New Zealand while low-emissions technology pathways can be established. We consider it highly likely that if phase-out of industrial allocation were accelerated to achieve complete phase-out by 2037, New Zealand would lose significant industrial capacity with limited or no global emissions benefit.

20. For more detail, see our recent submission on the Climate Change Response (Late Payment Penalties and Industrial Allocation) Bill.[3]

Part 2: Creating low emissions options

21. This part covers the Commission's proposed sector-specific recommendations, including the built environment, energy and industry, forestry, and transport.

Energy and industry – consenting barriers to electrification

22. The draft advice revisits familiar issues around consenting barriers to expansion and new build of electricity generation, distribution, and transmission infrastructure. We're strongly supportive of the intent and the focus on addressing genuine barriers to investment but have some reservations the proposed resource management reforms will deliver this. We believe the Commission could usefully provide some advice on these matters. Our submission on the Natural and Built Environment Bill has more information.[4]

Energy and industry – commentary on the role of natural gas in the transition

23. We welcome commentary in the Commission's draft advice on the role of natural gas in the transition, particularly in its role as a back-up (peaking) fuel for electricity generation. We note the Commission's 2030 benchmark for meeting the second emissions budget is 96% renewable electricity generation (consistent with a range of sector reports which have found the market can deliver 95-98% renewable in the timeframe).

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3 Our submission on the Climate Change Response (Late Payment Penalties and Industrial Allocation) Amendment Bill is available at: https://www.energyresources.org.nz/dmsdocument/238

4 Our submission Natural and Built Environment Bill 2022 is available at: https://www.energyresources.org.nz/dmsdocument/233

24. The Commission specifically points to natural gas as preferable over coal in thermal generation, and progressively shifting to a dry year and peaking fuel rather than baseload. Our recently released independent Energy Link report on the role of natural gas in the system supports this as a preferable alternative to an arbitrary target of 100% renewable by 2035.[5]

25. We further welcome the Commission's warnings that the 100% renewable electricity target and Lake Onslow proposal are together undermining investment confidence and therefore slowing investment in renewable generation. This is consistent and helpfully adds to a growing chorus of mainstream energy sector voices on this point. We have cautioned against accelerating delivery of the National Energy Strategy (currently due end 2024), but we strongly support bringing forward the review of the 100% renewable electricity target to coincide with the Gas Transition Plan.

26. The Commission notes that if the pace of renewable generation build is six months behind its updated demonstration path, this could add 1.8 Mt of emissions and additional wholesale market electricity costs from gas generation over the second emissions budget period (2026-2030). In our view this highlights that gas (and gas generation and storage capacity) remains a 'fall-back' where renewable electricity generation, for whatever reason, falls short of demand and therefore settings are required to ensure it is available when needed.

27. The draft advice contains now-familiar comments about the 'managed transition' away from natural gas. We caution against closing off options, picking winners, or pursuing fuel selective policies. We remain hopeful the forthcoming Gas Transition Plan will provide the clear direction the sector seeks without being too directive or prescriptive.

28. The Commission highlights fugitive emissions in the gas sector (i.e., from upstream production and transmission/distribution). Notwithstanding the relatively small share of national gross emissions this represents, we agree that this should be explored further. We are happy to help facilitate engagement with the sector on this point. Relatedly, we released in September 2022 our Fuelling the Energy Transition report, which highlights the significant progress the sector has made on reducing its upstream emissions profile.[6] We also announced the formation of the Energy Resources Sector Net Zero Accord, which represents a joint commitment from the sector to play a significant role in the low-emissions energy transition. The Accord provides a platform for engagement on fugitive emissions and coordination of solutions.[7]

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5 A summary of our "The Role of Gas in Electricity and Industry" report is available at: https://www.energyresources.org.nz/dmsdocument/242

6 Our report "Fuelling the Energy Transition" is available at: https://www.energyresources.org.nz/assets/Uploads/Fuelling-the-Energy-Transition-Full-Report.pdf

7 Please see https://www.energyresources.org.nz/oil-and-gas-new-zealand/net-zero-accord/ for more details of our net zero accord.

Energy and industry – carbon capture, utilisation, and storage

29. We welcome the Commission's more fulsome commentary on carbon capture, utilisation, and storage (CCUS) compared to its 2021 advice. We agree with the Commission that "an enabling framework would need to be in place by the end of the second emissions budget period to take advantage of any potential opportunities" (page 122).

30. The Commission's voice now adds to that of the International Energy Agency, which specifically advised New Zealand to explore pairing carbon capture with gas-fired peaking, and the Australian Climate Change Authority, which recently released a report looking at the role of CCS in Australia's energy transition.[8]

31. A Castalia report commissioned by the gas sector shows that if CCUS were implemented from 2027, New Zealand could achieve gross emissions reductions of up to 15 million tonnes by 2035 while also reducing energy costs compared to a policy-as-usual pathway.[9] 2027 is an aggressive timeframe, but this reflects that if there is a real willingness to realise projects with urgency, infrastructure can be built much faster than we are used to.

32. We suggest the Commission includes a specific CCUS recommendation in its final advice. In the spirit of creating low emissions options, it should recommend that government should develop an enabling regulatory regime for CCUS before the end of the second emissions budget period, and sooner if practicable, so that it can be explored and implemented where it makes commercial sense (driven by a rising carbon price). In our view, this is the first best role for government in the low emission transition: ensuring there are no regulatory barriers to emerging technologies.[10]

33. We consider this is made even more urgent given the Commission's focus on gross emissions reductions. Point capture and storage or utilisation of carbon is a key emissions reduction opportunity that will need to be on the table. It also creates exciting opportunities for a 'circular economy for carbon'. Several large-scale industrials require carbon as a feedstock and might be able to repurpose captured carbon from other industrial or biogenic sources. Carbon capture also opens opportunities for production of low-emission fuels such as sustainable aviation fuel (SAF). We believe shifting from viewing carbon simply as

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8 The IEA report on New Zealand is available at https://www.iea.org/reports/new-zealand-2023, and the Australian Climate Change Authority report on the role of carbon sequestration in accelerating Australia's decarbonisation is available at: https://www.climatechangeauthority.gov.au/publications/reduce-remove-and-store-role-carbon-sequestration-accelerating-australias-decarbonisation

9 This report "2035/2050 Vision for Gas" is available at: https://www.energyresources.org.nz/dmsdocument/237

10 It's worth contrasting this recommendation with the proposed ban on new gas connections. An enabling regulatory regime does not mandate nor prohibit the implementation of a given technology or fuel; instead, it adds another possible option to the suite of technologies we might need to drive down emissions in the energy and industrial sectors.

a pollutant to viewing it as a valuable commodity could unlock game-changing emissions reduction opportunities.

Built environment: proposed ban on new gas connections

34. We strongly oppose the Commission's proposed recommendation to prohibit new installation of natural gas and LPG connections in buildings.

35. We note a similar recommendation was floated in the Commission's draft advice on the first Emissions Reduction Plan but was dropped before the final advice was published. It is unclear what has changed in the intervening period to warrant this issue being revisited especially in light of it being explicitly rejected by the Government. This recommendation is an outlier in the draft advice. It stands out as oddly fuel-selective and prescriptive, in a way that most of the other recommendations are strategic and focused on reducing barriers and enabling innovation.

36. We oppose the proposal for the following reasons:

- **a ban on new connections reduces optionality**. Ironically – given Part 2 of the draft advice is about creating low emissions options – the proposed ban precludes future integration of renewable gases into the network. A quick review of gas distributors' asset management plans indicates all of them are actively exploring these opportunities;

- **the ban could become a self-reinforcing prophecy**. The Commission frames the proposal as shielding consumers from asset stranding risks. But prohibiting new connections would amplify this risk for current users by significantly undermining investment signals to gas pipeline businesses;

- **the 'size of the prize' is likely to be small.** Our submission on the 2021 draft advice made a rough estimate that a ban on new gas connections might reduce emissions by 2,000 tonnes CO_2-e per year.[11] The revised 2023 draft proposal further constrains the scope of the prohibition, no doubt reducing its likely benefit;

- **the costs and distributional impacts of the proposal have not been assessed**. 400,000 homes and businesses use natural gas – reflecting a preference based on cost, convenience, reliability, and other consumer factors. A ban prevents new customers accessing these benefits. Moreover, there are significant economy wide market structure and competition implications for any new business that requires a new natural gas connection. The Commission's ban will force new businesses to use more

[11] Also note the proposal does not specifically engage with the waterbed effect, which may further nullify any gross emissions reduction benefit (because the ETS units freed up by these reductions are purchased and surrendered by other emitters). More here: https://www.energyresources.org.nz/dmsdocument/202

expensive and/or less effective fuels, putting new entrants at a commercial disadvantage relative to incumbents; and

- **the policy pre-empts the Government's Gas Transition Plan.** It is appropriate to first establish the overarching transition strategy for the gas sector rather than attempting to prescribe this through tactical and fuel-selective bans or mandates.

37. As a general principle, we do not support bans as they are blunt instruments which reduce optionality and hide the true cost of abatement. Bans may also have significant unintended consequences which cannot be easily unwound, and even if such consequences are identified, it is very difficult to reverse them in a manner that restores investor confidence if the policy is subject to partisan politics.

38. What may be a good choice for one firm or household may not be good for another, and because information is dispersed only the firm or household in question can best make decisions on what technology to use.

39. It is interesting to juxtapose this proposal with the carefully considered remarks about Methanex and the gas sector transition more generally (page 117 of the draft advice). The Commission rightly identifies that the gas market is intertwined with the electricity market, and that any gradual winddown of the user base must be carefully considered. Yet the Commission quickly shifts from that nuanced perspective to proposing a connection ban which would undermine confidence in a sensitive market that they just recognised as being important.

40. 400,000 homes and businesses (such as restaurants and cafes) currently use natural gas or LPG. These customers choose natural gas or LPG because of a range of positive attributes – including affordability, reliability, and service attributes (e.g., instantaneous heat). We should not compare electricity to natural gas without considering the different characteristics, infrastructure, and cost drivers.

41. Evidence shows this would be an unpopular move with the wider public. A recent member survey by the Restaurant Association on the Government's next phase of emission reduction targets found 85% of respondents currently using natural gas in their commercial kitchen do not consider electric options provide a viable alternative. Further, nearly 70% of these same respondents would consider changes, provided a viable alternatives are available. Additionally, nearly 72% of respondents do not support a ban on new connections.

42. These results indicate commercial kitchen operators have good awareness of the need for emissions reduction, but also highlight considerable resistance to banning new connections and a lack of credible alternatives to facilitate switching away from natural gas use.

43. In this respect we are disappointed in the Commission's commentary on the viability of biogas alternatives to natural gas supply. We believe there is sufficient evidence about suitability of biogas for commercial and residential use, which accounts for about 23% of total demand. For example, studies by Energy Resources Aotearoa member Powerco have shown that there is 'site-ready' biogas potential accessible to their distribution network equivalent to around 50% of residential gas demand. While the broader availability (maybe not site ready now but potential to be) is shown in studies to be of an accessible and economic size to meet all of the residential demand.

44. By choosing to pursue a ban on new gas connections, before viable alternatives including biogas have had sufficient time to develop, the Commission risks closing off this option and stifling innovation in an emerging sector.

45. Notwithstanding the Commission's clarifying the proposal does not cover LPG barbeques, this kind of policy is likely to generate widespread criticism and media coverage, and in doing so undermine wider public support for climate policies. This matters because we need broad public buy-in for climate policies to be effective and sustainable.

Forestry

46. Overall, we read the draft advice as being too heavily weighted toward the risks of over-reliance on forestry, with insufficient balancing commentary on its benefits (for more on 'over-reliance', see *Part 1: Fundamentals for success*). While we agree in principle that forestry should not unduly defer economic gross emissions reductions, the reality is that New Zealand will not achieve its targets without offsets.

47. Only two years into its demonstration path, the Commission has concluded New Zealand is likely to over-rely on forestry. There are good reasons to expect, instead, that new forestry volumes registered in the ETS will fall. These include:

- recent carbon price volatility in the secondary market, driven by market responses to the Commission's 2022 advice on ETS price and unit settings, and to the Government's subsequent decision in December 2022;
- the end of the stock change option for forestry (this had driven an increase in applications ahead of the phase-out deadline, which has now passed);
- an MPI proposal to charge an annual fee to forest owners to cover the costs of administering the ETS;
- softening of investment confidence in marginal land in response to recent storm events (e.g., Cyclone Gabrielle) which significantly affected existing plantation and carbon forests;

- overseas Investment Act changes which replaced the previous special forestry test with a benefit to New Zealand test (and recent public announcements by the Opposition that it will ban overseas investment in carbon forestry registered in the ETS); and

- the recently announced review into the design of the NZ ETS to examine the various incentives for gross versus net emissions reductions, which will have implications for the treatment in the ETS of the permanent forestry category.

48. We therefore recommend caution and emphasise the need for any significant changes to investment incentives for forestry to be backed by strong evidence of a problem.

Transport

Light vehicles

49. EV uptake is running about 3-6 years ahead of the Commission and Government's expectations (which were set only a few years ago). The Commission's updated demonstration path sees uptake following an S-curve through to 2035/36, when 100% of light vehicles entering the fleet are expected to be EVs. The future is hard to predict – we suggest this is a caution against temptation to prescribe the trajectory of the transition with too much specificity. We can expect plenty of technological and behavioural surprises over the next 30 years.

50. Castalia, commissioned by Z Energy, provided an interesting analysis and alternative view on EV uptake, mode shift, and fuel demand projections a few years ago.[12] The key point is that these forecasts are based on many assumptions, all of which require some careful judgement and on which there are a range of credible and defensible views.

51. The Commission asserts that setting a phase-out date for ICE vehicles (presumably 2035) would provide certainty for industry. While this isn't presented as an explicit recommendation in the draft advice, we advise against it regardless. A specific phase-out date risks future policy interventions to achieve it, and risks constraining optimisation by forcing emissions reductions where they would not otherwise be economic. If the target is set based on assumptions that are not borne out over time these impacts can be significant. The 100% renewable electricity target is a particularly salient example (the Commission has been consistent in cautioning the potential unintended consequences of this target).

52. We support the Commission's recommendation that the Government should rapidly resolve the barriers to scaling up vehicle charging infrastructure.

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12 This report is available at: https://znz-webbackendassets-s3bucket-prod.s3.ap-southeast-2.amazonaws.com/public/zenergy/about-z/documents/The-Future-of-Fuel-Demand.pdf

53. Given low-emission vehicle uptake is accelerating, driven by relative economics compared to ICEs, we support the focus on infrastructure. This is where a stronger case for government involvement can be made, particularly while some parts of the network, or some segments of the market, struggle with the chicken-egg problem of scaling up ahead of demand.

54. Our recent submission on the draft National EV Charging Strategy provides more detail on our position.[13] We draw attention to our suggested guiding principles to shape the role of government in supporting EV charging infrastructure rollout:

- government should focus on identifying and addressing well-evidenced market failures with proportionate solutions – such as regulations, or subsidies to unlock commercial investment – that are justified on cost-benefit basis relative to the status quo and alternatives;
- market-led – investments should be made on a commercial basis wherever possible, recognising the private sector is better incentivised to take risks and invest to meet (projected) demand;
- competition and consumer choice – any government measures should focus on reducing barriers to market entry, expanding consumer choice, and exposing consumers to cost-reflective market incentives and information so they can make optimal decisions; and
- technology agnostic – government will avoid picking winners by ensuring policy settings remain open to alternatives, such as new technologies and business models.

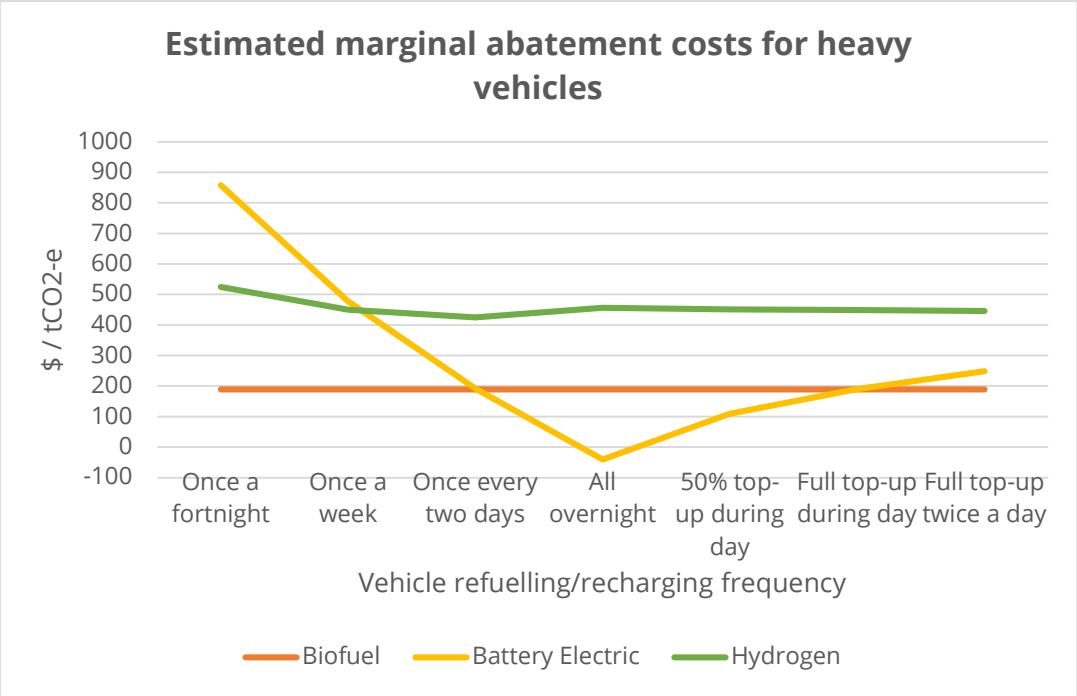
Heavy freight

55. Reducing emissions from the freight and commercial sectors is likely to be much more challenging. EV trucks have significantly higher capital costs, and while their total cost of ownership relative to ICEs will improve over time, freight operates on narrow margins and price parity is not expected in the near term. The Commission recommends developing incentives (subsidies and mandates) to accelerate the uptake of these technologies.

56. Putting aside the efficacy of such proposals in light of the waterbed effect, any such policies should be thoroughly assessed on a cost-benefit basis (particularly their marginal cost of abatement). The economics of fuel switching vary considerably depending on the application (i.e., the frequency and timing of refuelling/recharging). To illustrate, the regulatory impact statement on the proposed sustainable biofuels obligation estimated abatement costs for a range of heavy vehicle applications shown in the graph below. We are yet to see these

[13] Our submission on the "Charging our Future: A Draft Long-Term Electric Vehicle Charging Strategy" is available at: https://www.energyresources.org.nz/dmsdocument/244

assumptions tested in the New Zealand context, with forthcoming hydrogen truck projects (e.g., Hiringa and H W Richardson) likely to cast light on this.



Source our analysis based on MBIE data[14]

Shipping and aviation

57. We agree that coastal shipping has multiple benefits, including modal shift from road freight and enhancing resilience against weather impacts. We also note that the Commission is due to provide advice soon on whether international shipping emissions should be included in New Zealand's emissions targets.

58. We suggest the draft advice would benefit from providing further commentary on options to reduce shipping emissions. Hydrogen is singled out as one potential means to achieve this, but very little attention is dedicated to methanol as a low-emissions marine fuel. New Zealand has a domestic producer of methanol (Methanex), with access to domestic feedstock in natural gas. Methanol could also provide a pathway to further emissions reductions in future, including carbon capture, bio-methanol and/or e-methanol.[15] Utilising domestically available methanol as a future fuel was a missed opportunity for Kiwirail's Interislander ferries – but we are pleased to note that MOVE Logistics

14 MBIE data: https://www.mbie.govt.nz/dmsdocument/18372-sustainable-biofuels-mandate-final-policy-design-regulatory-impact-statement-proactiverelease-pdf

15 For more information on the low-emissions pathway for methanol, see: https://www.methanex.com/sites/default/files/investor/MEOH%20Investor%20Presentation%20-%20April%202022%20-%20Final%20_0.pdf. Further, we note that Methanex is also ideally located as one among several potential 'power-to-X' customer for Taranaki's world-class offshore wind electricity generation, which is under active investigation by multiple developers.

has confirmed it will proceed with a methanol-capable roll-on, roll-off coastal shipping route between Taranaki and Nelson.

59. Finally, we reiterate our point earlier regarding the potential for carbon capture to enable significant emissions reductions in the transport sector. Carbon capture opens opportunities for production of low-emission fuels such as sustainable aviation fuel (SAF). Enabling regulatory settings that treat carbon as a commodity and feedstock, rather than a pollutant, will be critical.

Additional thoughts

Reiterating our concerns with the sectoral approach to emissions reduction planning

60. We understand the practical appeal of demonstrative sector budgets which in turn add up to a national demonstrative net zero pathway. They make the Commission's very challenging task more manageable by breaking up the work into intuitive sector groupings.

61. But we remain concerned that this reductionist approach is driving suboptimal outcomes, because these pathways are being treated as determinative sector 'budgets.[16] The room for 'unders and overs' between sectors in a national net approach is not evidently front of mind for officials.

62. This is driving any number of policy processes – for example, officials working on the Gas Transition Plan have reiterated that the plan needs to hit the gas sector's gross emissions 'target', irrespective of whether a different gas transition might be more optimal from a whole-of-economy view. We think the *demonstrative* sector gross emissions pathways are taking on a *determinative* status that was not intended and are driving a siloed approach to climate policy.

Putting in place the building blocks for a least-cost transition

63. A core part of the Commission's role is to provide an independent account of the Government's progress against its emissions reduction plans and emissions budgets.

64. We strongly recommend that the Government and the Commission ensure that performance of all emissions reduction policies is reported in an easily accessible, standardised format, against common measures. These should include marginal abatement costs (including public, private, and total abatement costs) and measures of additionality. Encouraging standardised reporting will provide ongoing feedback into policy development and support a better-informed debate about the evolving role of government in the transition.

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16 Reductionism the practice of analysing and describing a complex phenomenon in terms of its simple or fundamental constituents, especially when this is said to provide a sufficient explanation.

Conclusion

65. The draft advice reflects a genuine effort on the Commission's part to take stakeholders' views on board through successive engagements for which we are genuinely gratified. The result is more nuanced advice that reflects a sober appreciation of the trade-offs inherent in the energy trilemma. We appreciate this effort and look forward to continuing to engage constructively.

66. However, this aside, we still have areas of disagreement with the Commission's direction – these are highlighted in the summary section above and form the basis of our more specific recommendations. We are happy to discuss these in further detail if this would be of assistance.