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POWERING A BETTER NEW ZEALAND TOGETHER

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Ministry for the Environment
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Submission on the Review of the New Zealand Emissions Trading Scheme

Introduction

1. Energy Resources Aotearoa is New Zealand's peak energy advocacy organisation. Our purpose is to enable constructive collaboration across the energy sector through and beyond New Zealand's transition to net zero carbon emissions in 2050. Our members include upstream energy producers (OMV, Todd, Beach, Matahio); downstream fuel suppliers (Mobil New Zealand); electricity generators and distribution (Genesis Energy and Powerco); and large energy users (Methanex, Oji Fibre Solutions).

2. This document constitutes our submission on the Ministry for the Environment's (**the Ministry**) consultation on the review of the New Zealand Emissions Trading Scheme (**ETS**). Note we have also separately submitted on the redesign of the permanent forest category.

3. Beyond the key points below, this submission proceeds as follows:

    - Part 1: The policy case for the review and the debate between a net-focused transition and one prioritising gross reductions;
    - Part 2: Other important issues for consideration, including retrospectivity, carbon capture, and industrial allocation among others; and
    - An appendix containing brief discussion on the high-level options floated in the discussion document.

Key points

- We believe the ETS review is premature. The Government first needs to decide whether it will depart from a net emissions strategy, and if so, to set indicative levels of gross emissions and carbon dioxide removals from forestry out to 2050 to guide policy development. We expect this will be done in the Second Emissions Reduction Plan.

- We continue to support a net emissions strategy in pursuit of a least cost transition. The Government's projections indicate the ETS can deliver net zero by 2050, albeit with a significant portion of this being met through forestry removals.

- In absence of clarity about the preferred balance of emissions and removals (and relatedly, indicatively required ETS volumes and prices), and with the options not being fully specified, it is difficult to assess options to redesign the ETS.

- Externalities that are unrelated to the core function of the ETS should be addressed through other mechanisms. The Government's non-ETS efforts to manage forestry activities ('right tree, right place, right purpose') are among various reasons to expect afforestation will not be as large-scale as projected.

- The ETS review introduced significant additional uncertainty to a market already buffeted by a rolling maul of policy proposals and changes. The worst of the market reaction could have been avoided by ruling out retrospective changes to existing property rights, including already-registered forestry and the 1:1 fungibility of existing NZUs with emissions. This commitment should be made as a priority.

- Industrial allocation is a critical lever to mitigate emissions leakage risk, and the gradual decline in allocation has been well signalled out to 2050. We strongly caution against further reductions in allocation to achieve more aggressive emissions reductions, as some of the review's options envisage.

- Carbon capture, utilisation, and storage could play a critical role in the low-emissions transition, so the ETS review should consider any necessary changes to ensure it is enabled and recognised appropriately.

Part 1: The overarching policy debate

The policy case for the ETS review is based on two core arguments

4. The policy case for limiting the contribution of forestry removals to our low-emissions transition, in favour of pursuing more gross emissions reductions, rests on two key arguments:

    - **Argument 1 (national net vs. gross emissions):** the ETS will not deliver an optimal low-emissions transition, on the basis it will not achieve a desirable balance of gross reductions and removals which is consistent with long-term net zero; and

    - **Argument 2 (localised externalities):** ETS-driven afforestation has externalities, both negative (environmental/social impacts from large-scale exotic/monoculture afforestation), and positive (biodiversity benefits of native afforestation), which are not recognised or managed within the ETS.

5. We deal with each of these arguments in turn below.

Argument 1: Achieving an optimal balance of gross reductions and removals

Our general position

6. Our view is that New Zealand should focus on reducing its net emissions (gross emissions minus removals) consistent with reaching its legislated domestic target of net zero emissions (excluding biogenic methane) by 2050. Accumulation of greenhouse gases in the atmosphere is a function of net emissions.

7. Focusing on net emissions, rather than a particular balance of gross emissions and removals, helps to keep as many technology, fuel, and reduction/removal options as possible on the table. The ETS as it is currently set up recognises that 'a tonne is a tonne', and prices emissions and removals on this common basis. Options to reduce or remove emissions can then be compared and prioritised on their marginal costs of abatement at the individual, household, firm, and economy level.

8. The ETS helps us to discover an efficient least-cost trajectory toward net zero by 2050 by co-ordinating the preferences and decisions of millions of actors every day.[1] By definition, any policy measures that constrain optionality (either by closing options or incentivising options disproportionately to their emissions value) will increase the overall cost of that transition.

9. To the extent a least-cost trajectory involves the use of forestry (or other) removals, this reflects that they are an affordable way to bridge the gap toward net zero while the costs of new low-emissions technologies to reduce gross emissions fall. Any externalities – positive or negative – can be dealt with in separate non-ETS measures (see paragraph 28 onward), but the costs and benefits of these measures should be dealt with transparently.

10. For more detail, we have dealt previously with assertions that a least-cost pathway is not optimal – see https://www.energyresources.org.nz/dmsdocument/178.

The rationale for change laid out in the ETS review

11. The primary rationale for the ETS review – reflecting advice from the Climate Change Commission (**the Commission**) – is that under current settings, New Zealand will over-rely on forestry removals, with a correspondingly insufficient reduction in its gross emissions, because for many emitters it will be cheaper to pay for their emissions than invest in reducing them.

12. Government modelling shows this in turn could lead to an overabundance of forestry that could see the price of carbon decline within the next decade, further disincentivising emissions reductions. The Commission has further argued that:

1 'Least cost' simply means the least cost to community welfare compared to other pathways.

- projected rates of afforestation would leave significant residual gross emissions beyond 2050 and return New Zealand to net positive emissions by 2065 if planting rates aren't sustained;

- the sequestration of significant amounts of carbon above ground (in forests) creates an ongoing obligation risk, i.e., where forests are affected by fires storms, and other hazards; and

- the ETS would also not provide an incentive for forestry removals above and beyond what is demanded within the ETS, which are required to achieve net zero across non-ETS long-lived gases such as nitrous oxide.

Our response

13. We appreciate that neither the Commission nor Government is arguing that New Zealand should abandon forestry removals entirely. On the contrary, both reinforce that removals will continue to play a critical role in the transition and should be incentivised in some form. But this leaves the market grappling with significant uncertainty, reflected in ETS price volatility: if the Government wishes to focus more on gross reductions, while continuing to incentivise removals, what will its preferred balance between the two look like, and how will this affect existing and prospective investments?

14. We think this question should have been resolved before the ETS review was initiated and it is not resolved by the ETS review consultation document itself. This is the primary reason we have struggled to engage in detail with the high-level options laid out in the discussion document. Without knowing what balance of gross emissions and removals is sought, nor a clear sense of the potential ETS volume and price implications, it is challenging to assess the alternatives against each other.

15. New Zealand's strategic direction with respect to its low-emissions transition should be set first, ideally with meaningful stakeholder engagement and enduring cross-party political support. This strategic direction could confirm a focus on gross emissions reductions (if this is the preferred approach) and set indicative targets for gross emissions and removals over time.[2] We expect this will occur in the development of the Government's second Emissions Reduction Plan.

16. From this we could then infer the required ETS volumes, prices, and levels of afforestation intended by policy settings. Only then should the policy mechanism(s), e.g., the ETS and others, have been recalibrated to align with that long-term direction.

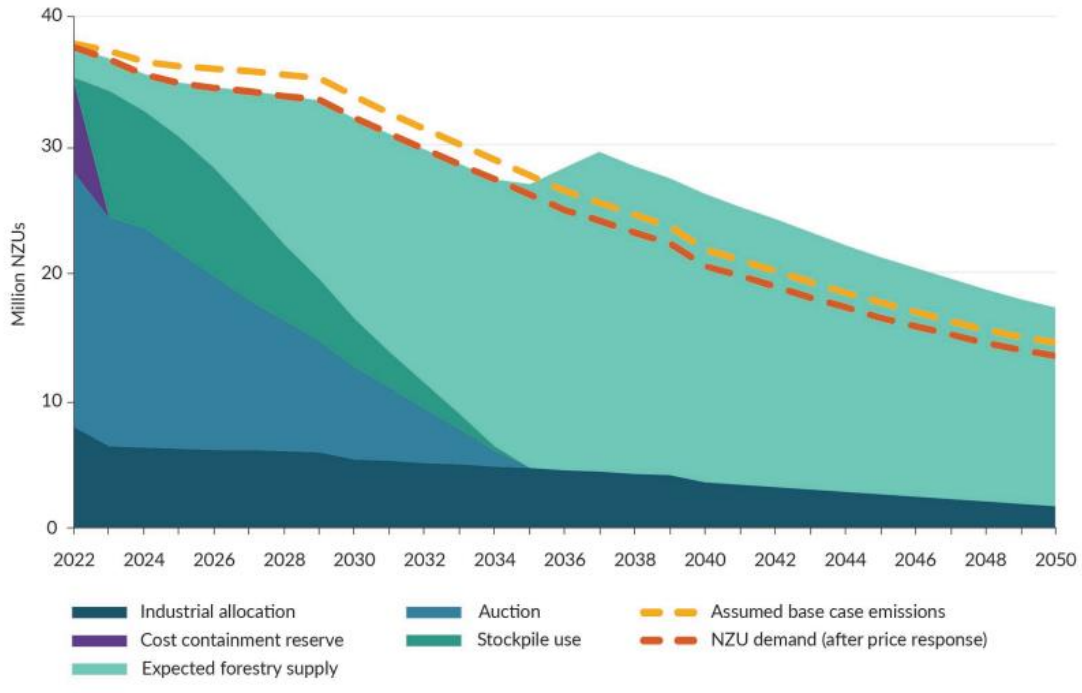
2 Given our position laid out above, we unsurprisingly would oppose a shift away from a net focus, but the important point is that the debate is resolved at the strategic level, not through continued tactical changes to the ETS.

17. The Commission points toward this kind of strategic approach in its *2023 Draft advice to inform the strategic direction of the Government's second emissions reduction plan*. The draft advice recommended that the Government "communicate indicative levels of gross emissions and carbon dioxide removals from forestry out to 2050 and beyond to guide policy development" alongside committing to gross emission limits in the next emissions budgets.

18. If these indicative long-term targets for emissions and removals were available, and ETS review options then more specified, submitters would be able to engage by assessing the extent to which they might deliver the desired levels of emissions and removals. It would also enable a more fruitful debate about the relative costs and benefits of departing from our current net emissions pathway toward the Commission's and/or Government's preferred pathway.

19. The consultation document, and subsequent release of modelling data, go some way to highlighting the trade-offs that need to be made. The Government's model (Figure 5 below) from the consultation document illustrates the Government's current projections of ETS supply and demand under existing settings, and note this scenario sees the ETS price steadily declining to below $30 per tonne by 2050.[3] This projection achieves net zero, with 13 million tonnes of residual gross emissions in 2050 offset by equivalent volumes of forestry removals.

Figure 5: Total supply and demand with falling price



3 See pages 27 and 28: Review-of-the-New-Zealand-Emissions-Trading-Scheme-Discussion-Document.pdf (environment.govt.nz). A subsequent update based on new unit and price control settings indicates the expected 2050 ETS price is ~$60, but the model may need to be calibrated as this leads to significant oversupply of forestry offsets.

20. Figure 5 sees ETS prices fall below $30 by 2050, but per our arguments about a least cost transition above, this is not necessarily a problem as such if New Zealand has achieved its net zero target, and if any externalities of forestry are adequately managed. The outcome sought by the ETS is net zero emissions, not necessarily high prices. Indeed, if New Zealand has sufficient domestic resources to deliver a net emissions transition without high carbon prices, thereby retaining its international economic competitiveness, the ETS is designed to discover this.

21. The summary of modelling report released later in the consultation period helps to further illuminate what alternatives could look like.[4] These are summarised in the table below – though there are countless other possible combinations of gross emissions and removals compatible with net zero.

	ETS indicative price path		**Gross ETS emissions**		**Net zero 2050**
	2022 / 2023	**2050**	**2050 (Mt)**	**Reduction vs. 2022**	
Government model (Figure 5 above)[5]	$80	$26*	13.5	-64%	✓
Lower price variant[6]	$50	$111	11.7	-70%	✓
Commission's demo path	$70	$260	9.2	-76%	✓
Higher price variant	$300	$666	7.8	-79%	✓

**Note a subsequent update to this model based on new unit and price control settings announced in July 2023 shows the price drop to 2050 is less dramatic, reaching ~$60, but the model may need to be calibrated as this assumes significant oversupply of forestry offsets.*

22. Those scenarios that achieve deeper gross emissions reductions tend to feature higher ETS price paths. They also require correspondingly smaller contributions from forestry offsets (and presumably involve policy design, like ETS reform or other, to achieve this more limited contribution). This follows logically – as the price of carbon rises (presumably due to limiting supply of removals), this will improve the business case for more emissions reductions such as energy efficiency and fuel switching.

4 Review-of-the-New-Zealand-Emissions-Trading-Scheme-Summary-of-Modelling.pdf (environment.govt.nz)

5 Figure 5 from the consultation document.

6 Lower price variant, Commission demo path, and higher price variant scenarios are from the Summary of Modelling document available here: Review-of-the-New-Zealand-Emissions-Trading-Scheme-Summary-of-Modelling.pdf (environment.govt.nz)

23. What strikes us is how stubborn a significant portion of gross emissions are in 2050, even at very high carbon prices.[7] We draw two conclusions:

    - this reinforces the importance of both industrial allocation and continued availability of forestry offsets, to ensure significantly high carbon prices do not simply drive 'decarbonisation by deindustrialisation'; and

    - this raises an important question, at the heart of the 'net focus versus gross focus' debate, about New Zealand's appetite for much higher carbon prices in exchange for additional gross emissions reductions, and the impact this could have on hard-to-abate (particularly industrial) sectors of the economy.

24. The Commission has argued that more removals-reliant scenarios might return New Zealand to net positive emissions beyond 2065 if planting rates are not maintained. By way of brief response, we note it is highly likely that as the rest of the world progresses toward net zero, technological cost curves will continue to fall, and innovation will unlock additional cost-effective opportunities for emissions reductions. This process of bridging the technology cost gap with affordable removals is a core reason why we advocate for a least cost, net emissions approach.

25. In any case, we see some reasons why ETS-driven afforestation might not occur at the scale or speed anticipated by the Government's projections:

    - recent carbon price volatility in the secondary market, driven by a) market responses to the Commission's 2022 advice on ETS price and unit settings; b) the Government's subsequent decision in December 2022; c) the successful court appeal of this decision; and d) the ETS review and permanent forestry category consultation;

    - 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 and planned plantation and carbon forests; and

    - 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).

7 Note some of this might be explained by limitations of the model – we have in the past expressed some scepticism about the usefulness of marginal abatement cost curve approaches at the aggregate economy level, which are likely to be much more relevant at the firm level.

26. It is unclear to what extent the effect of these measures is reflected in the Government's modelling assumptions.

27. We also expect that other ancillary measures to address the environmental and social effects of afforestation will soften its response to a rising ETS price (see paragraph 28 onward).

Argument 2: Managing the positive and negative externalities of forestry

28. Our longstanding view is that ETS-driven externalities should be dealt with by ancillary measures, not within the design of the ETS itself. The ETS should be focused on efficiently allocating NZUs which have a 1:1 fungibility with tonnes of emissions, within a fixed quantity cap set to align with a trajectory toward net zero.

29. Mitigating negative externalities, or incentivising positive externalities, that are unrelated to emissions removals should be achieved through other mechanisms.[8] Preserving the principle of 'a tonne is a tonne' ensures the ETS is left to do its job: to co-ordinate the investment decisions of millions of actors, in real time, to discover a least-cost trajectory toward our 2050 target.

30. Ancillary measures could include:

    - environmental planning and forestry management requirements to address the environmental and social impacts of production and carbon (permanent) forestry – which are being progressed through the implementation of the NES-PF, as part of the Government's 'right tree, right place, right purpose' strategy;

    - separate (non-ETS) incentives might be justified to recognise the biodiversity benefits of polyculture or native forestry, or to incentivise forestry offsets required above and beyond those for which there is demand in the ETS; and

    - insurance or bonding mechanisms might be required to mitigate the risk that investors in forestry fail to meet their surrender obligations, such as if the forest burns down.

31. Even if these measures are separate from the ETS, they will still have cost implications for the transition. Providing subsidies for native afforestation, for example, will represent an opportunity cost for the taxpayer, and will result in no net change to our emissions trajectory. It may well be that we value the biodiversity benefits of this native afforestation such that the subsidy is justified;

8 To illustrate the point: we view changing ETS settings to address the local environmental impacts of forestry as analogous to raising fuel taxes to reduce the road death toll. It could certainly be argued that doing so disincentivises the relevant behaviour – in this case, driving. But there are likely to be more efficient targeted policies (such as safety barriers) that do not distort the mechanisms' core functions (in this example, cost-recovery for road building and maintenance).

the point is that these costs and benefits should be transparently considered. A similar argument holds for subsidies for emissions reductions, given the waterbed effect.[9]

32. The consultation paper does not appear to consider whether these non-ETS mechanisms might sufficiently achieve the stated policy intent of limiting the contribution of forestry removals to our low-emissions transition. In particular, the Government recently announced it will amend the National Environmental Standards for Plantation Forestry (NES-PF) to:

    - include carbon forests alongside plantation forests;
    - to manage their effects as if they are plantation forests;
    - enable councils to develop local rules and policies to manage the location of forests; and
    - make operational changes to enable better management of the environmental effects of forestry.

33. It is conceivable that the Government's 'right tree, right place, right purpose' changes outside the ETS will go some significant way to reducing the land available for afforestation, either because the land is excluded through local rules and policies, or the costs of meeting management requirements in some areas or land types is too high. It is unclear to what extent these policy changes are incorporated into forward forestry projections.

Part 2: Other important issues for consideration

Recognition and protection of existing property rights

34. The discussion document discusses whether any of the potential design changes should apply only to newly allocated units, or to all units. For example, establishing a proportional cap on how much of an emitter's obligation can be met through forestry (or removal) NZUs raises the question of how NZUs in the stockpile are categorised (i.e., whether they are gross units or removal units). We believe including this commentary in the discussion document has driven a predictable downward response in the NZ ETS secondary market that was avoidable.

9 The waterbed effect has been thoroughly traversed in climate policy debates, so we do not revisit the detail here. For more, see https://www.energyresources.org.nz/dmsdocument/202.

35. As a starting point, the Government should categorically rule out changes that retrospectively undermine sunk investments in forestry. This includes:

    - ruling out changes to entitlements for NZUs for currently registered forestry; and

    - ruling out changes to the 1:1 fungibility of existing forestry NZUs with gross emissions.

36. If the Government's concern is about projected afforestation levels (rather than afforestation to date), we see no reason not to retain existing treatment for existing forests, and to implement any changes from this point forward.

37. This should have been done on the release of the discussion document to allay any predictable market panic about the status of existing investments. It should also be recognised that even contemplating this kind of retrospective policy intervention affects investment confidence not only in the affected sector, but across the New Zealand economy, and does so in the context of global competition for investment capital.

Industrial allocation

38. We have consistently argued that industrial allocation is a key measure to mitigate against emissions leakage risk. EITE firms continue to operate and invest in New Zealand based on long-term security that they will continue to receive allocation of NZUs to mitigate the competitive impact of emissions pricing. Driving industrial allocation down faster than the currently well-signalled phase-out rate would be highly damaging to investment confidence and could lead to emissions being moved offshore. We do not consider this would be a defensible approach to meeting our international commitments.

39. If industrial allocation needs to be revised, we suggest it could be linked to the actual risk of emissions leakage (e.g., by tying it to an index of New Zealand's top trade competitors). This would ensure any reduction in allocation is commensurate with the actual risk of emissions leakage.

40. The range of ETS scenarios discussed above show that industrial allocation to 2050, under current phase-out rates, can be consistent with net zero and offset by forestry removals. The scenarios also help to illustrate just how 'hard-to-abate' some of these emissions are, even at very high carbon prices (which might undermine these firms' international competitiveness if they are out of line with those faced by global competitors).

41. For more detail, see our latest submission on this topic here: https://www.energyresources.org.nz/dmsdocument/238.

Inclusion of a broader range of removals in the ETS

42. We support the inclusion of removals where they are scientifically robust and additional.

43. Work should be underway to ensure that the removals that count toward our NDC meet the same standard. That is, if New Zealand considers that a type of removal is additional, permanent, and scientifically valid, but it does not count toward our NDC, this points to an issue with our NDC, not the inclusion of that removal in the ETS.

44. If the Government moves New Zealand toward a strategy that prioritises gross emissions reductions, it should be careful to do so in a way that recognises geological sequestration is different in many ways to biological sequestration – more below.

Carbon capture, utilisation, and storage

45. Carbon capture, utilisation, and storage (**CCUS**) will be an essential tool in the global transition to net zero emissions. In New Zealand, it could play a key role in addressing hard-to-abate emissions in the medium term and achieving net-negative emissions through direct air capture in the long term (if this is pursued). Several commentators support this potential – for example:

    - the Intergovernmental Panel on Climate Change's Sixth Assessment report considers deployment of carbon dioxide removal to counterbalance hard-to-abate emissions is "unavoidable", and all global modelled pathways that limit warming to 2°C include carbon capture;

    - CCUS is a feature of the International Energy Agency's future scenarios, including its Net Zero Emissions by 2050 scenario; and

    - an independent report by Castalia, which explored a range of potential futures for the gas sector, found that enabling CCUS in New Zealand could deliver significant emissions reductions at lower total costs, compared to a 'policy as usual' pathway.[10]

46. Supporting documents recently released with the Gas Transition Plan issues paper strengthen the case for urgent action:

    - a WoodBeca report suggests 4.4 Mt of natural gas processing emissions could be avoided from 2027-2035 if CCUS is available; and

[10] The summary report is available at https://www.energyresources.org.nz/dmsdocument/237 and the full report is available at www.energyresources.org.nz/dmsdocument/236.

- a University of Waikato report identifies options within the existing regulatory framework to enable CCUS to get underway. This includes changes within the ETS regime.

47. We strongly encourage government to prioritise policy work to identify and address any barriers to CCUS in the ETS. We wrote to the Minister of Climate Change in April 2023, and in his May 2023 response he agreed the ETS review is an appropriate vehicle for this work.

48. We have also advocated for the development of a dedicated enabling regulatory regime for carbon capture, utilisation, and storage in New Zealand (noting this is outside the scope of the ETS review).

The Government should continue to explore measures to address the cost impacts of higher-cost transition strategies

49. We note the consultation document briefly covers options to mitigate impacts on households. We support exploration of these options, while preserving the incentive to reduce emissions, and expect the forthcoming Equitable Transitions Strategy will provide some indication of the Government's intended policy direction in this space. This becomes even more important if New Zealand shifts toward a greater focus on gross emissions reductions, with correspondingly higher carbon prices.

50. We support in principle some form of carbon dividend, which would return all or some ETS proceeds to all New Zealand households. This would underpin sustained community support for the transition by softening any cost-of-living impacts. Households would still be incentivised to reduce their emissions, as they would then capture the delta value between their emissions expenditure and the dividend allocated each year.

51. This would generally be progressive, because wealthier households spend more per annum on emissions, but design of the mechanism could consider some form of means-testing (albeit trading off administrative efficiency and redistribution).

Conclusion

52. The ETS market has been buffeted for several years now by a rolling maul of policy changes and consultations – including both 'routine' decisions around ETS unit and price control settings, as well as commentary on more fundamental policy and design questions (such as this consultation).

53. We appreciate that the ETS is not a perfect mechanism, and like New Zealand's broader climate policy settings, requires difficult trade-offs to be made about the pace and scale of the low-emissions transition.

54. However, we believe the long-term transition – and the large-scale private investment that will be required to achieve it – is best served by first resolving the

fundamental policy debate about what kind of transition New Zealand wants to have. We agree with the Commission on this point: the Government should first communicate indicative balances of gross emissions and removals out to 2050 before policy mechanisms can be aligned with this strategic direction. We would welcome an open debate about this question in the development of the second Emissions Reduction Plan, and the ETS Review should be put on hold until this is complete.

Appendix 1: Commentary on options to amend the ETS

General comments

55. The Government currently has a number of supply-side levers in the ETS:

    - it can determine how many NZUs will be made available via auction (i.e., gross emissions without backing by forestry removals) and via the cost containment reserve; and

    - it can determine the price control settings which can limit (auction price floor) or increase (cost containment reserve) the supply of unbacked NZUs.

56. The options laid out in the discussion document represent increasingly significant changes to the ETS to provide the Government with more levers – both demand and supply side – to influence the relative balance of gross emissions and forestry removals in the ETS. To drive greater gross emissions reductions will require more constrained supply and a higher carbon price.

57. Our concern is that in significantly increasing its influence over NZU supply and/or price, the Government is undermining the efficiency of the ETS and could drive a higher-cost transition to net zero than is otherwise necessary. It could also further politicise decisions about the shape and pace of the transition, and if this is subject to political swings, it could have the counter-productive consequence of undermining the long-term confidence and price stability investors need to decarbonise.

58. Again, per our comments throughout this submission, policymakers might judge that these costs are worthwhile, on the basis they address some risks and/or produce some benefits that justify the additional costs. The consultation document itself notes that there is some uncertainty whether reducing emissions now or waiting will be more expensive in the long run. But these costs and benefits should be dealt with transparently. The discussion document does not equip us to reach an informed view about the relative costs and benefits of the alternatives presented.

59. We reiterate that we strongly support the ETS as New Zealand's primary mechanism to drive down emissions toward net zero. We think it is preferable to a carbon tax in that it allows the market to discover a carbon price based on a volume cap consistent with net zero by 2050, instead of Government having to define a price on an ongoing basis. However, some of the options presented in the discussion document are so significant in their rebalancing of unit and price influence toward the Government that it raises the question: would a carbon tax be more straightforward?

60. We have provided below some high-level commentary on the options as presented, but reiterate our preference that the Government first specify its objective (i.e., the indicative balance of gross emissions and removals to 2050),

which will enable better specification and full cost-benefit modelling of these options.

Option 1 – reduce unit supply through auctions

61. The Government already can further restrict unit supply through auction. As the consultation document notes, there is a limit to how much influence this option might have on the incentive for gross emissions reductions, because auction volumes are already expected to reach zero in the mid-2030s.

62. Our primary concern with this option is that it envisages changes to industrial allocation among the existing levers that might be used to reduce NZU supply. We strongly oppose any further changes to industrial allocation, per paragraphs 38-41 above. If this option is progressed, we recommend industrial allocation is specifically ring-fenced with a commitment not to accelerate its scheduled phase-out rates to 2050.

63. If industrial allocation phase-out rates are further amended, this should not be based on achieving the Government's preferred balance of gross emissions and removals. Rather, it should be based on a revised and robust understanding of the changing emissions leakage risk – i.e., a change from status quo phase-out should be linked to the carbon price faced by relevant trade partners.

Option 2 – Government to buy NZUs

64. If the Government decides it wants to incentivise further gross reductions, this option will enable it to do so to some extent without significantly upending the current design of the ETS. The Government would exercise some influence on demand for NZUs, by participating in the buy-side of the market itself, but this would be limited by the Government's willingness to commit funding to this versus alternative opportunities for public investment.

65. This option would expose the Government itself to the costs of its decision to prioritise a more ambitious balance of gross emissions and removals, and to not include agricultural nitrous dioxide in the ETS. It would address the question of who should pay for NZUs that are surplus to those required to carbon emitters but required to offset agricultural nitrous dioxide emissions.

66. We suggest such an option should only be pursued once auction volumes have reached zero – otherwise it would be administratively inefficient for Government to both supply and buy units.

67. One potential benefit of this option is that it establishes a long-term mechanism to incentivise net-negative emissions within the ETS, with the Government purchasing volumes of forestry-backed NZUs beyond the mid-2030s if this is eventually deemed a necessary outcome.

68. Enabling overseas purchase of NZUs also exposes New Zealand to some risk (noting officials consider demand for NZUs will be low given NZUs will contribute to New Zealand's NDC). Some combination of voluntary markets, overseas governments, and large overseas carbon markets could drive significant additional demand, with market sizes in the billions of units, compared to New Zealand's tens of millions. This would place upward pressure on carbon prices.

69. Consistent with other options identified, the downsides to this high-level option include:

    - likely higher carbon prices (this could be significant if New Zealand sees unexpectedly high demand from overseas markets)

    - a new source of uncertainty in the ETS market – that is, the timing and scale of Government demand in the market, and how this demand-side lever would interact with any supply-side levers.

Option 3 – Changing incentives for removals

70. We oppose this option, as it undermines the 1:1 fungibility of NZUs with tonnes of emissions (a fundamentally sound design principle of the ETS). Much of our commentary in Part 1 of this submission details our rationale here.

71. The downsides to this high-level option include:

    - likely higher carbon prices

    - much more complicated national carbon accounting, with the greenhouse gas inventory treating forestry removals differently to the ETS;

    - potential difficulties in linking our ETS to overseas markets in future; and

    - a new source of uncertainty in the ETS market – that is, uncertainty regarding how the Government will use this new lever. The market will have to anticipate political decisions about the relative incentives for removals, and whether further unpredictable changes might be made in future.

72. If such an option were pursued, we strongly recommend that consideration should be given to retaining the 1:1 fungibility of NZUs for other removal technologies (such as geological carbon capture and storage, and carbon capture and utilisation), on the basis these do not raise the same issues identified with forestry.

Option 4 – Creating separate markets for gross emissions reductions and emissions removals

73. We oppose this option – it would give the Government essentially full control over the cost of carbon to emitters and the reward to forestry for removals. It puts Government in the very high-risk position of having to forecast what carbon and

removals prices are required to deliver an efficient transition toward net zero; if it gets this forecast wrong, it could have disruptive economic impacts, without the dynamic forestry 'pressure valve' that the ETS currently has.

74. Such a regime would rely on the Government having a relatively accurate forward understanding of where things are headed. Because of the lead-time associated with new forestry, it could be difficult to respond quickly to provide relief beyond any stockpile supply availability.

75. If such an option were pursued, we strongly recommend that consideration should be given to retaining other removal technologies (such as geological carbon capture and storage, and carbon capture and utilisation) in the ETS (or whatever system is used for emissions reductions), on the basis these do not raise the same issues identified with forestry.