

Submission

By



**to the Ministry for the Environment
and**

to the Ministry for Primary Industries

on

the Review of the Emissions Trading Scheme

and on

a Redesigned NZ ETS Permanent Forest Category

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1 INTRODUCTION AND SUMMARY

- 1.1 This submission in response to the Review of the Emissions Trading Schemeⁱ and permanent forestry category changesⁱⁱ is made by The New Zealand Initiative (the **Initiative**), a Wellington-based think tank supported primarily by major New Zealand businesses. In combination, our members employ more than 150,000 people.
- 1.2 The Initiative undertakes research that contributes to the development of sound public policies in New Zealand and the creation of a competitive, open and dynamic economy and a free, prosperous, fair and cohesive society.
- 1.3 The Initiative's members span the breadth of the New Zealand economy; a well-functioning Emissions Trading Scheme and a cost-effective path to Net Zero is important to them. The views expressed in this submission are the views of the author, not those of our members.
- 1.4 We do not aim to comment on all aspects of these documents. We focus on the areas within our policy expertise.
- 1.5 In summary, we submit:
- (a) The Emissions Trading Scheme can usefully be strengthened;
 - (b) The proposed options do not usefully strengthen the ETS. Accurate problem definition is needed if effective improvements are desired;
 - (c) The ETS should maintain its focus on net emissions, rather than gross. The Climate Commission should maintain a sharp focus on ensuring the accounting is sound;
 - (d) Policy problems unrelated to net emissions should not be addressed through the ETS. They require their own separate instruments;
 - (e) Permanent forest considerations in the ETS should be guided solely by sound carbon accounting, with other considerations and consequences left to the levels and branches of government best placed to deal with those considerations;
 - (f) The ETS should be strengthened by:
 - a. Reforming the price cap to track a weighted average of international carbon prices in emission trading schemes that the Commission considers credible;
 - b. Legislating the number of unbacked units available to be issued or allocated between now and 2050;
 - c. Complementing the ETS with policies addressing other issues as they arise, rather than trying to address each through tweaks to ETS settings;
 - d. Maintaining regime certainty by avoiding threats to the underlying institutional structure or the property rights inherent in emission certificates;
 - e. Addressing equity issues that arise as carbon prices rise by redistributing collected ETS revenues as a carbon dividend rather than using those revenues for industrial subsidies or other projects.

2 PROBLEM DEFINITION AND THE EMISSIONS TRADING SCHEME

- 2.1 The Climate Change Commission and the current Government have come to a view that gross emission reductions should be prioritised. The Commission consequently recommended that the government change the ETS to strengthen incentives for gross emissions reductions and to manage the amount of exotic forest planting the scheme will drive.

- 2.2 Both pieces of advice put New Zealand's path to net zero at risk.
- 2.3 New Zealand's Zero Carbon Act sets a legislated goal of net zero by 2050. The Act sets a net target, rather than a gross target. And from its initiation, the Emissions Trading Scheme was designed around net emissions rather than gross emissions. Prioritising gross emission reductions, despite cross-party support for legislation setting a net emissions target, puts political consensus at risk. It also asks the ETS to take on a task for which it was not designed.
- 2.4 There is very good reason to target net emissions rather than gross emissions. The atmosphere simply does not and cannot care whether the next tonne of greenhouse gas fails to be in the atmosphere because someone did not emit that tonne, or because it was sequestered in a tree, or because it was captured directly from the atmosphere by new and emerging technologies.
- 2.4..1 If this is not true, it can only be because the accounting on sequestration is wrong. It is important that the accounting be correct.
- 2.5 From the outset, the ETS has aimed to be neutral across technologies and across methods for reducing net emissions. The balance between gross emission reductions and sequestration or capture was to be found as individuals, households, and businesses responded to carbon price signals.
- 2.6 Economist Alex Tabarrok says that a price is a signal about scarcity wrapped in an incentive to do something about it. The ETS price signals the relative scarcity of the atmosphere's capacity to absorb further greenhouse gas emissions. It also provides an incentive to avoid creating emissions in the first place, if the cost of avoiding emissions is less than the ETS price, and to sequester emissions from the atmosphere, if the cost of sequestration is less than the ETS price.
- 2.7 Public commentators sometimes damn the ETS as providing inadequate incentive because one sector or another has not reduced emissions by as much as the commentator might have liked – particularly in sectors that are obvious and publicly salient, like road transport. But if emissions from transport reduce by less than emissions from other sectors, this is evidence only of that abatement costs in transport are higher than other sectors.
- 2.8 The carbon price in the ETS creates information that otherwise did not and could not exist. The price, in combination with different sectors' responses to that price, tells us where the lowest hanging fruit are to be found for achieving net emission reductions. New Zealand *discovers* where net emission reductions are most cost-effectively achieved by watching responses to carbon prices.
- 2.9 The same holds true in every other sector as well. When a cyclone hits Hawkes' Bay and lettuce is in short supply, we don't expect government to set plans saying how much reduction in lettuce consumption is expected from different sectors. Rising prices automatically provide the signal of increased scarcity, and the incentive to do something about it. Households, restaurants, caterers and everyone else respond to that signal as makes most sense given their circumstances. We collectively *discover* where reductions are most cost effective. It would be ludicrous to complain that, for example, high-end restaurants had not reduced their lettuce consumption by enough – or that home gardeners had not increased their own lettuce planting sufficiently. It sorts itself out in the same way that allocation and production of countless millions of other goods and services sort themselves out as actions and plans coordinate through the price system. And the same is true of carbon emissions in a well-functioning Emissions Trading Scheme, or under a carbon tax.

- 2.10 A well-functioning ETS that targets net emission reduction finds the appropriate balance between gross emission reductions and carbon removals. Whatever that balance *is*, is the right balance. The process defines the right outcome; there is no appropriate external standard for evaluating what the right balance might otherwise be.
- 2.11 As market participants discover new ways of responding to the incentives provided by carbon prices, other problems that have nothing to do with carbon emissions will emerge. It is impossible to predict in advance what those problems might be. Each of them should be addressed by the level and part of government best suited to dealing with each emergent problem.
- 2.12 Consider the perils of the alternative approach, which would require the ETS to reconsider which forms of carbon sequestration or gross emission reduction it might recognise or to what extent – because carbon prices encourage ‘too much’ of the activity resulting in other ancillary problems. A few simple hypothetical examples follow:
- 2.12..1 Carbon sequestration through olivine transformation proves highly cost-effective, but olivine mining causes changes in land use and community concerns about heavy truck traffic. Rather than use consenting processes to mitigate externalities from mining or appropriate road-user charging and roading upgrades to deal with truck traffic, the Climate Commission is asked to pretend that this form of direct-air-capture carbon sequestration does not sequester carbon – to reduce the incentive to engage in olivine mining.
- 2.12..1.1 A new methane inhibitor for livestock proves highly cost-effective in reducing biogenic methane emissions. For sake of argument, let us imagine that this happens after biogenic methane emissions are brought fully into the ETS as CO₂-e and are subject to the ETS cap – or are subject to their own methane trading system. The new methane inhibitor unfortunately increases nitrogen concentration in cattle urine. And because dairy farmers face lower methane charges with lower emissions, dairy farming becomes more profitable and there is an increase in dairy conversions. All of it puts increased pressure on overburdened water catchments. Rather than appropriately regulate water quality, the government asks the Climate Commission to put a thumb on the scales to discourage use of the methane inhibitor.
- 2.12..1.2 A new type of cement is developed that produces vastly fewer emissions. The technology for producing the cement powder is owned by an overseas company who can easily deliver the powder to New Zealand; when used here, emissions from cement are trivially low. But because the overseas company will not licence the powder to large domestic incumbent cement producers and because it will outcompete domestically produced cement, the incumbent faces difficulty. The Climate Commission is asked to level the playing field by requiring surrender of NZU for use of the new cement as though it had the same emissions profile as existing cement – to avoid unemployment at community cement plants. A ‘just transition’ path is suggested that would allow the new cement to be treated fairly in twenty years’ time.
- 2.12..1.3 A new direct-air carbon capture technology is developed. It can sequester carbon at a cost of \$50/tonne and can scale infinitely. It could not only offset the entirety of New Zealand’s gross emissions, but also prior emissions if allowed to run at scale. The Climate Commission is asked not to recognise this new technology because, if it were allowed to generate NZU at \$50/tonne, there would be weaker incentive to reduce gross emissions and New Zealand would not achieve the wholesale industrial, social, and economic transformation that some might otherwise desire.

- 2.12..1.4 A high carbon price makes people wish to avoid housing that has high carbon cost and prefer apartments and townhouses near the city centre. However, cultural concerns are raised about the shift away from suburban living, with commensurate concern about potential reductions in family size and an aging population. A conservative government encourages the Commission to consider a higher NZU surrender requirement for electricity used in apartments as compared to electricity used in detached suburban homes to avoid this undesirable change in housing use.
- 2.12..1.5 A rising price on biogenic methane emissions in agriculture, when those emissions finally face an emission price, results in reduced herd sizes and changes in rural land use. The Commission is asked to redo methane accounting to reduce the likelihood that emission pricing results in land use change, because of a view that emissions prices were not intended to result in land use changes.
- 2.13 None of these scenarios are difficult to imagine. Nor are others. If the response in each of these cases if they emerge, or in countless other potential scenarios that will emerge, is that the Climate Commission must rejig the ETS in new and bespoke ways, how on earth can we possibly get to Net Zero? The Commission will be required to spend most of its time holding inquiries and submissions processes on ways of rebalancing the ETS to deal with every new concern that arises about the different ways that people respond to price changes.
- 2.14 If every new development requires a rejigging of how the ETS works, we will be baking fundamental regime uncertainty into the ETS. NZU prices will no longer reflect the marginal cost of preventing the next tonne of carbon from being in the atmosphere, along with expectations around technological development. They will instead reflect bets on countless arbitrary decisions about which kinds of emission reductions will be treated fairly, and which kinds of emission reductions will be politically skewed by the Commission in response to hints from the Government about which kinds of reductions should be favoured or disfavoured.
- 2.15 We have already seen how regime uncertainty plays out when the government sent signals that it would erode the value of NZU generated in forestry. One carbon market participant reported in Carbon News, “We’ve been speaking to some very angry forestry people and some very confused emitters. Foresters don’t know if they can plant and emitters don’t know if they can use those units to offset after 2025.”ⁱⁱⁱ
- 2.15..1 The consequence of regime uncertainty in forestry: a rapid bringing-forward of planting decisions, in hope of grandparented exemption from whatever harm the government might impose on the market, and a dumping of existing forestry credits, because their future value became far more uncertain and using them for immediate NZU surrender requirements made more sense. The government plausibly here helped to *cause* the exact problem that the government thought needed to be addressed: rapid afforestation. It was obvious and foreseeable. If you threaten a future ban on an activity, anyone who had planned on engaging in the activity at some future date will have strong incentive to do it now instead.
- 2.16 Again, and to emphasise: using this kind of process for myriad issues that arise on the path to 2050 will massively increase the cost of reaching net zero. It will regularly throw the carbon market into disarray and in doing so will erode political support for the single most important instrument for reaching net zero. A regularly-dysfunctional carbon market combined with fundamentally politicised calls about which emissions count, and which do not, will play into every conspiracy theory that Net Zero is not about reducing emissions but is rather about micromanaging choices in pursuit of other agendas.

- 2.17 The Government seeks advice about ETS design choices in forestry: which types of trees should be allowed; whether location or land ownership should be a relevant consideration; how to ensure that a transition forest transitions; and, how best to manage permanent forests. The only design choice that should be relevant to the ETS is ensuring that carbon accounting for transition forests accurately reflects actual sequestration. And, of course, carbon accounting should be accurate. All sequestration should be accurately accounted. And forest management should not be a matter for the ETS to consider except to the extent that it affects accurate carbon accounting. It is perfectly reasonable for government to want to ensure that forest management is sound – but that process should be separate from considerations around the Emissions Trading Scheme. Sound forest management should apply to permanent and production forests.
- 2.18 There is an obvious better solution to piecemeal changes to the ETS as non-carbon issues emerge. Keep the ETS laser-focused on net emissions and on ensuring the accounting is right. And let other parts of government suited to dealing with other problems deal with those other problems as they emerge through their own targeted interventions. In the case of forestry:
- 2.18..1 If there are externalities from forest planting, that's a land-use planning issue best dealt with through normal council land use planning and consenting. If there are problems with forestry conversions, it could well matter for both carbon and production forests.
- 2.18..2 If the government wishes to encourage planting native trees rather than exotics for non-carbon reasons, it should provide a biodiversity subsidy reflecting the value that it thinks the country receives from native plantings, while letting landowners make their own decisions about what to plant. It is encouraging that the government is consulting on a biodiversity credit regime.
- 2.18..3 If the government worries that a carbon forest might be abandoned by its owner and that future surrender obligations in case of fire or other calamity might not be met, consider bonding, insurance, or potential to seize the property for unmet NZU surrender obligation. Consider ongoing monitoring that would provide an early warning if risks were mounting. Any of these policies would need to be evaluated on their own merits, but they are surely better targeted than asking the ETS to pretend that a tree does not sequester carbon.
- 2.18..4 If political pressure caused by rapid economic change in local communities is unbearable, let that pressure be alleviated by local councils setting restrictions on further afforestation through land use planning regulation – ideally with guidance from central government encouraging regular reassessments of such restrictions so they can be eased if circumstances change. Doing so would be the equivalent of banning the land use changes that eventuated after the removal of sheep subsidies decades ago, but at least the policy could be evaluated on its own merits.
- 2.18..5 And if other problems emerge along the path to 2050, which surely will happen, those problems should be dealt with individually by the level and branch of government best suited to dealing with each of those specific problems.
- 2.19 This obvious better solution is longstanding in the economics literature. It is called the Tinbergen Rule.^{iv} The Tinbergen Rule says that if you have multiple policy objectives, you need at least as many policy instruments as you have policy objectives. Or, in other words, you need at least two stones if you want to hit two birds. Trying to force the ETS, designed to deal with net emissions, to deal with non-carbon objectives will mean that the ETS will be worse at dealing with carbon while also doing a poor job of dealing with the other

objectives. It is simply very poor policy design to force the ETS to do multiple jobs. It has one big job that no other part of government is equipped to handle: pushing net emissions down to zero by 2050. Let it do its job while ensuring that the rest of government deals with other problems that emerge along the way.

2.20 We suggest a modified version of the Commission's Option 1.

3 Option 1a: Strengthen the ETS to set a durable path to Net Zero.

3.1 First, reset the ETS price cap. Rather than setting a nominal price anchor at a fixed dollar amount, set the cap as being identically equal to the volume-weighted average carbon price in international Emissions Trading Schemes that the Climate Change Commission considers to be credible. The price cap will rise and fall with international prices.

3.2 Abolish the Cost-Containment Reserve.

3.3 Legislate the number of unbacked units that can be issued or allocated between now and 2050. That quantity, plus outstanding previously-issued unbacked units, represent the total quantity of net emissions from New Zealand's covered sector from now through 2050 and beyond. Set that quantum as a property right in newly issued NZU: if future governments issue more unbacked NZU than legislated, the rights of existing NZU-holders are eroded and they can seek compensation. The number of unbacked NZU will be fixed and certain, made durable by threat of litigation by and necessary compensation of existing rights-holders.

3.4 When ETS prices reach the price cap, one of two things happen:

3.4..1 If the global average cost of carbon is *above* the government's cost of creating NZU by planting native trees on the DoC estate, or by implementing other measures that reliably sequester carbon and generate NZU, the government will undertake activities that generate *backed* NZU. Those NZU will be sold at the price cap. The government will earn revenue from each NZU sold.

3.4..2 If the global average cost of carbon is *below* the government's cost of creating NZU by planting trees, the government will purchase ETS credits in the lowest cost carbon market that the Climate Commission has already deemed credible. The cost of such purchases will be below the NZU price cap. Those units will be used to back NZU issued and sold at the price cap. The government will earn revenue from each NZU sold.

3.5 No limit is set on the quantum of *backed* units issued at the price cap because they do not affect net emissions. The quantum instead finds a natural limit: there is only so much land suitable for planting on the DoC estate, and New Zealand purchases of credits on international markets would bid up international prices – which would automatically increase New Zealand's price cap. If a credible foreign market closes itself to purchases by the New Zealand government, it is removed from the average that defines the price cap to avoid the risk that the government loses money at the price cap.

3.6 Because the quantum of unbacked units issued or allocated henceforth is fixed, government can shift focus away from fixed-period carbon budgets.

3.6..1 Currently, the government finds itself deeply troubled when someone buys and holds an NZU against future obligations rather than redeeming it immediately: future surrender could risk some future carbon budget. But the atmosphere ought to strictly prefer later emissions over earlier emissions for durable greenhouse gases that accumulate. It is better for an NZU to be surrendered a century from now rather than today, because that tonne of emissions will have spent a century not being in the atmosphere and causing harm. The best NZU is one that is not surrendered, or whose surrender is long delayed.

- 3.6..2 Current settings introduce unnecessary anxiety and focus on issues that do not help the climate. Concern over whether NZU will be surrendered on this side or the other side of an emission budget period can result in government deciding to provide very large subsidies to very large emitters, in hope of encouraging emission reduction to fall on the appropriate side of a budget window. If the quantity of unbacked NZU is strictly fixed, then the Commission should not need to worry about the timing of surrender.
- 3.6..3 With a fixed quantum of unbacked units, even the number of annually issued unbacked NZU will not have much effect on annual surrender volume. If the government issues 'too few' units in any given year, people will draw from stockpiles. If the government issues 'too many', people will stockpile against future price increases. Because the quantity is fixed, a greater volume of issuance today is necessarily at the expense of future issuance. A standard Hotelling-style^v price path will eventuate.
- 3.7 With a fixed quantum of unbacked units, government can always decide to buy back and retire credits if it wishes to effect a tighter path to net zero.
- 3.8 All revenue that the government earns at ETS auction, or that it earns by backed unit sale at the price cap, or that it earns from any excess dividends it thinks it earns from its stake in the electricity companies when carbon prices are high, should be set aside for a carbon dividend. A carbon dividend makes rising carbon prices more politically durable.
- 3.9 Finally, ensure that the ETS remains focused on net emissions and that the Climate Change Commission remains focused on ensuring that accounting within the ETS is correct.^{vi}

4 Conclusion

- 4.1 Introducing uncertainty about the institutional settings underpinning the ETS puts New Zealand's climate response at risk.
- 4.2 Responding to challenges brought about by carbon forestry through changes to the ETS, rather than dealing with them at source, sets a very poor precedent.
- 4.3 There remain decades between now and 2050. It is impossible to foresee what unintended consequences may emerge as people respond to changing technologies and changing carbon prices. All manner of changes may eventuate.
- 4.4 If everyone expects that the New Zealand government will follow a sensible policy process that addresses externalities as and where they emerge and deals with them through instruments targeted to those problems, we will be on sound footing for reaching 2050. People can invest in new carbon mitigation and sequestration technology in the expectation that real sequestration will be recognised with NZU, and that they need to deal with local land use planning if there are relevant externalities. It sets the appropriate incentives.
- 4.5 If instead people expect that political considerations will cause real sequestration to be ignored by the ETS, or that lobbying for changes to the ETS can be a low-cost way of protecting one's own industry against changes, we will get that result instead.
- 4.6 The ETS can usefully be improved. But shifting its focus to gross emissions, and opening the system to ongoing lobbying efforts to upweight or downweight different forms of real sequestration, does not improve the ETS. It forces a more costly path to net zero – a path at greater risk of being abandoned.

ⁱ Ministry for the Environment. 2023. *Review of the New Zealand Emissions Trading Scheme – Discussion Document*. Available at <https://environment.govt.nz/assets/publications/climate-change/Review-of-the-New-Zealand-Emissions-Trading-Scheme-Discussion-Document.pdf>

ⁱⁱ Ministry for Primary Industries. “Proposals to redesign the permanent forest category in the New Zealand Emissions Trading Scheme.” Available at <https://www.mpi.govt.nz/consultations/proposals-to-redesign-the-permanent-forest-category-in-the-emissions-trading-scheme/>

ⁱⁱⁱ Carbon News. 2023. “Carbon price crashes, “split market” developing. 7 July. Available at <https://www.carbonnews.co.nz/story.asp?storyID=28148>

^{iv} We discuss the Tinbergen Rule, in application to carbon emissions policy, in our 2022 submission on Managing Exotic Afforestation Incentives. Available at <https://www.nzinitiative.org.nz/reports-and-media/submissions/submission-managing-exotic-afforestation-incentives/>

^v Hotelling, Harold. 1931. “The Economics of Exhaustible Resources.” *Journal of Political Economy*. 39:2. This has literally been known for over nine decades. The Commission’s worries about the timing of forestry credits seem to ignore Hotelling pricing.

^{vi} See also our 2022 submission to the Environment Committee on the Emission Reduction Plan, available at <https://www.nzinitiative.org.nz/reports-and-media/submissions/submission-the-emission-reduction-plan/>