



NZ ETS Review 2015/2016 consultation: Other matters

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Submission Form

Discussion Document

Context and drivers for the review

1. Do you agree with the drivers for the review?

Yes

2. What other factors should the Government be considering in this NZ ETS review?

As noted in our submission in February 2016, the scope of the review should be broadened to address the following issues: (a) setting long-term NZ ETS ambition for domestic emissions and emission prices, (b) creating an integrated ETS architecture for managing unit supply and price (with and without international linkages) to deliver on the desired ambition, (c) aligning the NZ ETS with broader domestic climate policy and opportunities for international cooperation on mitigation, (d) building enduring cross-party and public support for rising emission reduction and price ambition under the NZ ETS, and (e) considering the inclusion of biological emissions from agriculture in the NZ ETS.

Other issues: business responses to the NZ ETS

9. Do you consider the future cost of emissions in your business planning?

Not applicable.

10. What would improve your ability to take into account the future cost of emissions in your business planning?

Not applicable.

Other issues: protecting competitiveness through free allocation

11. Under what conditions should free allocation rates start to be reduced after 2020?

Output-based free allocation is currently provided to industrial producers who are emissions intensive and trade exposed with the goal of avoiding leakage of production and associated emissions to jurisdictions with less stringent mitigation policies. In principle, free allocation should be phased out as the potential for leakage decreases, or faster. Key factors to monitor when making this determination include:

- The adoption of increasingly stringent mitigation targets and policies among primary trade competitors which impose an effective price on their emissions, whether through emissions trading, taxes or regulatory measures
- The effective price of emissions among primary trade competitors relative to New Zealand's effective emissions price
- Changes in the emissions intensity of industrial production in New Zealand (particularly if not driven primarily by industrial producers' own climate mitigation efforts)
- Changes in the degree of trade exposure by New Zealand producers, affecting their ability to pass on emission prices, particularly within New Zealand
- The rate at which the ETS in other industrialised countries are phasing out free allocation to industrial producers.

Even in the absence of changes in leakage risk, the value of free allocation should be reassessed relative to its cost. We should reassess:

- The environmental value of reduced leakage relative to the costs to those outside the industrial sector as a result of free-allocation. Costs fall on taxpayers who lose potential auction revenue, and the economy as a whole to the extent that mitigation is less cost-effective.
- The extent to which increased costs to taxpayers and the rest of the economy can be justified by increased competitiveness of the industrial sector. Do we want to subsidise emission-intensive sectors?

This determination should be reviewed periodically. It may be appropriate to adjust the phase-out rate on a subsector basis, rather than for the industrial sector as a whole. Changes to free allocation should be signalled in advance to increase policy stability for producers and support efficient investment decisions.

On a more technical level, the electricity emission factor used for assessing the eligibility of activities to receive free allocation should be revised to be consistent with the factors used to calculate output-based allocation. The use of revenue rather than gross value-added for assessment of eligibility could also be revised.

12. What impact would it have on your investment decisions over the next few years if there was a clear pathway or criteria for phasing out of free allocation after 2020?

Not applicable.

Other issues: managing unit supply - forestry

13. How does the carbon price impact your forestry investment decision-making?

In your answer, we are interested in the:

- a) extent to which the NZU price impacts decisions, compared to other factors
- b) impacts of the current price, and of your expectations for future prices.

Not applicable.

14. Are there opportunities for the NZ ETS to increase incentives for forestry investments, outside of NZU price?

Yes

15. What are your reasons for the above answer? If you answered yes, we would be interested in comments on:

- a) any barriers to participating in the NZ ETS that could be reduced

Increased operational efficiency to ease registration, reporting and trading is always helpful.

- b) other factors.

The key issue for forestry investments (and all other low-emission investments that are heavily dependent on a carbon price) is uncertainty around future emission prices and inability to manage this risk effectively. Please see our comments under 22 and 23.

Other issues: managing unit supply – international units

16. If international units are eligible for NZ ETS compliance in the 2020s, should any of the following restrictions be placed on their use? Please explain your answer.

- a) restrictions on where units can be sourced from (location of and/or types of projects)

Yes.

Quality-based restrictions should be placed on the sources of any international units accepted for compliance in the NZ ETS (and any used more broadly for New Zealand's compliance). Such restrictions should be based on the principle of ensuring the environmental integrity of emission reductions so the mitigation value of such units is comparable to that of NZUs.

These quality restrictions are critical for domestic credibility of the NZ ETS and hence its effectiveness and political stability (see later discussion of this under 23). It is also critical for the international credibility of New Zealand's effort, New Zealand's reputation and also our ability to encourage others to act. We also do not want to waste New Zealand resources on international units that may meet a legal requirement narrowly interpreted, but that do not promote New Zealand's long-term interests in climate stabilisation.

Future sources of international units may extend beyond project-based mechanisms, e.g. to include sectoral crediting mechanisms, ETS linking, and/or bilateral mitigation agreements. The same principle of ensuring environmental integrity should apply to all potential sources of international units, not just project-based sources. These 'jurisdictional'-scale mechanisms offer the potential for greater environmental integrity and effectiveness than existing project-based mechanisms but must be designed with care.

International units accepted in the NZ ETS should be recognised as eligible for use by the New Zealand government in helping to meet part of its target under the Paris Agreement. In this regard:

- Appropriate measures should be in place to avoid double-counting of emission reductions traded as offset units and counted toward national targets by the issuing country.
- Countries supplying international units should be in compliance with their national emissions inventory and reporting obligations under the UNFCCC and the Paris Agreement.
- International units issued under the new market mechanism established by the Paris Agreement should comply with the associated rules.

Restrictions in the Climate Change Response Act 2002 (and associated regulations) on temporary Kyoto units from forestry projects and Kyoto units from industrial gas destruction, large hydro and nuclear projects should apply to new sources of international units from projects. These restrictions may not be appropriate for units sourced through sectoral crediting mechanisms or ETS.

Assigned Amount Units and Emission Reduction Units issued during the first or second commitment periods of the Kyoto Protocol and carried over by other countries post-2020 should not be accepted in the NZ ETS. If Certified Emission Reductions can be carried over from the second commitment period, then their environmental integrity and eligibility toward meeting national targets should be assured in the context of the Paris Agreement before they can be accepted in the NZ ETS.

The same restrictions on unit quality which apply to NZ ETS participants should also apply to purchases of international units by the New Zealand government.

Quality-based restrictions on international units used within New Zealand (within the NZ ETS or by government) should be regularly reviewed to ensure environmental integrity. Further restrictions on eligible unit sources should not be applied retrospectively to units already held in the Registry.

b) restrictions on how many (**international**) units can be surrendered

Yes.

To support domestic decarbonisation, protect our economy from externally-driven carbon price shocks that are costly to our economy and protect against extreme implications from unforeseen problems with the environmental integrity of international units, quantity-based restrictions should be applied to the surrender of international units under the NZ ETS with the possible exception of units sourced under a bilateral ETS linking agreement.

If we did not limit international units and could access a source of units that is large enough to more than meet our needs, New Zealand would have no control over its emissions price. No country or jurisdiction yet has a climate policy that is so stable and suited to New Zealand's local conditions that New Zealand seems likely to benefit from completely ceding control to another country's system. Any political or economic shocks to the large system would be automatically transmitted into incentives for mitigation, and returns on mitigation investments in New Zealand. With an entirely externally driven emissions price we would also have no ability to respond to changes in local economic conditions.

The question is framed as 'if international units are eligible for NZ ETS compliance'. However, one central option that should be seriously considered is indefinitely excluding international units from

the NZ ETS. When international units are again available to New Zealand through a new mechanism (possibly designed in part by New Zealand), the government could purchase these and adjust the ETS cap (defined as the total number of units issued by government through free allocation or auctions) accordingly. This would have the same economic effect as allowing participants to purchase international units directly. We discuss the structure of an ETS cap and how it can be adjusted over time in question 19.

Under some mechanisms for generating international units (e.g. a CDM-type project mechanism or if New Zealand can purchase units from another country's ETS), private actors may have some advantage in purchasing units. The government could in this case purchase them from private actors through a tender process. In other cases (e.g. a jurisdictional-scale mechanism), only the government will have the ability to contract and purchase units. The adjustments in the cap resulting from successful international purchase of units could be made after the government has purchased units, with signals in advance about how large the resulting adjustment in the future cap will be. As long as there is an adequate bank of units, the timing of cap adjustment should not affect price.

The alternative is to allow participants to purchase a limited amount of international units each period. If the limit is binding (people want to buy more but can't), international unit prices will be lower than New Zealand unit prices. Simply defining a limit on units for the system as a whole would lead to a first-in-first-served system which is likely to be perceived as unfair. Other systems have set a limit on the percentage of units surrendered that are international units.

Actual emissions in ETS sectors will be the outcome of the quantity of international units allowed, combined with New Zealand's targets and decisions on sharing of mitigation responsibilities between ETS and non-ETS sectors. Any limit on the quantity of international units (set through cap adjustments or allowing a percentage of surrenders to be international units) should be set to strike an appropriate balance between (a) incentivising domestic decarbonisation, (b) containing emission prices in the NZ ETS, and (c) contributing to global mitigation at least cost. This balance should be guided by a broader climate change mitigation strategy for New Zealand which aims to achieve zero net domestic emissions of long-lived greenhouse gases during the second half of the century and contribute our 'fair share' to international mitigation efforts.

The choice of limit should be integrated with other decisions on unit supply in the domestic market, including the operation of government auctioning under an absolute cap, issuance of free allocation and/or the operation of price control mechanisms such as unit reserves or a price ceiling.

The limit could be expected to change over time in keeping with New Zealand's broader climate change mitigation strategy, our future international commitments, and changes in the marginal cost of abatement in New Zealand relative to other countries.

The table below provides sample scenarios for limiting the purchase and surrender of international units under the NZ ETS, and their implications for operation of the NZ ETS.

c) others

The carry-over rules for target surpluses and international units have not yet been negotiated under the Paris Agreement. If NZUs and/or international units can be banked by NZ ETS participants but international units cannot be carried over by New Zealand between commitment periods or New Zealand cannot carry over any target surplus between commitment periods, then this disconnect could pose a liability to the government and taxpayers. In the international climate change negotiations, it would serve New Zealand to advocate for sound carry-over rules that will facilitate effective operation of the NZ ETS, including the ability to bank units without the risk of creating a fiscal liability.

Table 1: Implications of different scenarios around international units

Implications	Scenarios			
	1. No international units used in NZ	2. International units used to meet NZ target		
		(i) Only government purchases international units – ETS cap is fixed within each period ¹	(ii) ETS participants can purchase and surrender limited percentage of international units	(iii) ETS participants can purchase and surrender unlimited international units.
ETS cap²	Cap set by ETS/non-ETS burden sharing decision within NZ's target.	Government adjusts cap upward periodically in response to its purchases on behalf of NZ and auctions more NZUs. ³	The effective cap can be the same as in scenario 2 (i).	Cap equal to the level of NZ's target minus non-ETS emissions. If permitted internationally, government may bank some units for risk management post-2030.
Domestic emission price	Set domestically.	Set domestically but lower than in scenario 1.	Price could be higher than in scenario 2 (i) if participants are unable to find units to purchase.	Price is international price. ⁴
Price protection	Can manage price in various ways (ceiling, auction reserve price (price floor); allowance reserve (e.g. Market Stability Reserve) and send clear signals of policy stability.			Can use price ceiling if units cannot be exported.
Gains from international trade	None.	Government gets net revenue from auctioning more NZUS backed by international units. Economy benefits from lower ETS price.	Participants who surrender international units gain difference between domestic price and international price. Economy benefits from lower ETS price.	Economy benefits from even lower ETS price.
Revenue to government	Auction units consistent with ETS cap, free allocation and price control mechanisms.	Government has more units to sell than in scenario 1 but at a lower price.	Government sells same number of units as in scenario 1 but at a lower price.	Government sells same number of units as in 1 but at international price.
Price volatility	Driven by domestic demand and supply and expectations of NZ government policy.			Driven by international demand and supply and expectations about other countries' policies

¹ A fourth scenario would allow unlimited purchase of NZUs by government. These would be used only to adjust future caps (see discussion on caps below - 19) not released into the market as they are purchased.

² In this case, the "cap" refers to a maximum limit on the number of NZUs issued by the government for free allocation or auctioning. It does not refer to the overall emission constraint on the system, which is a factor of the cap plus rules on banking, borrowing, offsets, linking, removal units and price control mechanisms operating outside the cap.

³ Assume government purchases are less than private purchases under scenario (iii) – the limit on purchasing units for use in the ETS is binding.

⁴ Unless international price is higher than under scenario 1, in which case no trade occurs.

Implications	Scenarios		
	1. No international units used in NZ	2. International units used to meet NZ target	
		(i) Only government purchases international units – ETS cap is fixed within each period ¹	(ii) ETS participants can purchase and surrender limited percentage of international units
		(iii) ETS participants can purchase and surrender unlimited international units.	
Domestic mitigation	Enough to meet target	Less mitigation than (1)	
			Less mitigation still

Other issues: managing unit supply – auctioning

17. Should auctioning be introduced in the NZ ETS?

Yes

If yes, when?

a) in the next two to three years

b) within five years (before 2020)

There is merit to introducing auctioning before 2020 (options (a) or (b)) and continuing auctioning indefinitely.

Demonstrating the auction mechanism soon will remove confusion about how it will operate. Auctioning units within a clearly signalled cap on gross issuance (not including issuance of units for removals) and within an announced series of future auctions consistent with that cap would provide greater clarity on the intended ambition of the ETS. This would help the market determine an appropriate price. If a reserve price is used in the auction, it can provide some protection against low prices and provide a signal about the long-term lower bound on price risk. The sooner these signals can be sent, the more rapidly the market will begin to respond to demand and supply fundamentals and provide clear signals to enable investment.

18. What should be the role or purpose of an auctioning function in the NZ ETS, if one were introduced?

a) to align supply in the NZ ETS more closely with our international target

Yes

b) to more actively manage NZU prices

Yes

c) other

Yes

Please explain your answer.

The critical feature missing in the current ETS is a clearly defined cap on unit issuance by government. Emissions trading markets are driven by signals of future demand and supply of units. Signals on future demand are relatively clear; uncertainty in demand, other than removal of the one-for-two unit obligation, is largely outside of government's control. Future supply is almost completely unknown. We know the level of the current bank and of likely free allocation in the short term but these can meet demand for only a limited time and we can only speculate about how New Zealand's future commitments will translate into unit supply to the ETS. We discuss the structure of this cap under question 19. Effective use of auctioning requires a cap.

Introducing a cap will:

- Provide a mechanism to align unit supply in the NZ ETS more closely with New Zealand's international target. The link between the cap and total supply of units to the ETS also depends on issuance of NZUs for removal activities, what limits are placed on international units (if and when they become available) and the operation of a price safety valve (ceiling) if it is sustained. A price ceiling mechanism can supersede the cap on auctioning. See discussion under question 22.

- Improve policy certainty about the future supply of units in the domestic market, which is critical for projecting emission prices and incentivising low-emission investment.

Introducing auctioning under a cap will:

- Assist with emission price discovery and transparency in the domestic market
- Enable regulators and participants to gain experience with auctioning while there is an alternative supply of units from the participant-held bank of NZUs
- Provide additional future supply through auctions before the current sources of supply (bank, free allocation and removals) are exhausted. This would enable NZ ETS participants to continue to reserve units in the bank to cover future liabilities; this is especially important for forest owners and those planning to expand economic activities with significant emissions
- Create the opportunity to introduce a price floor in the NZ ETS, which would support low-emission investment by reducing price risk
- Generate government revenue which can be recycled into the economy; for example, this could potentially be used to offset other distorting taxes, assist with the equitable distribution of costs from the NZ ETS, help the most vulnerable communities adjust to rising emission prices, and/or support the development and uptake of low-emission technologies and supporting infrastructure.

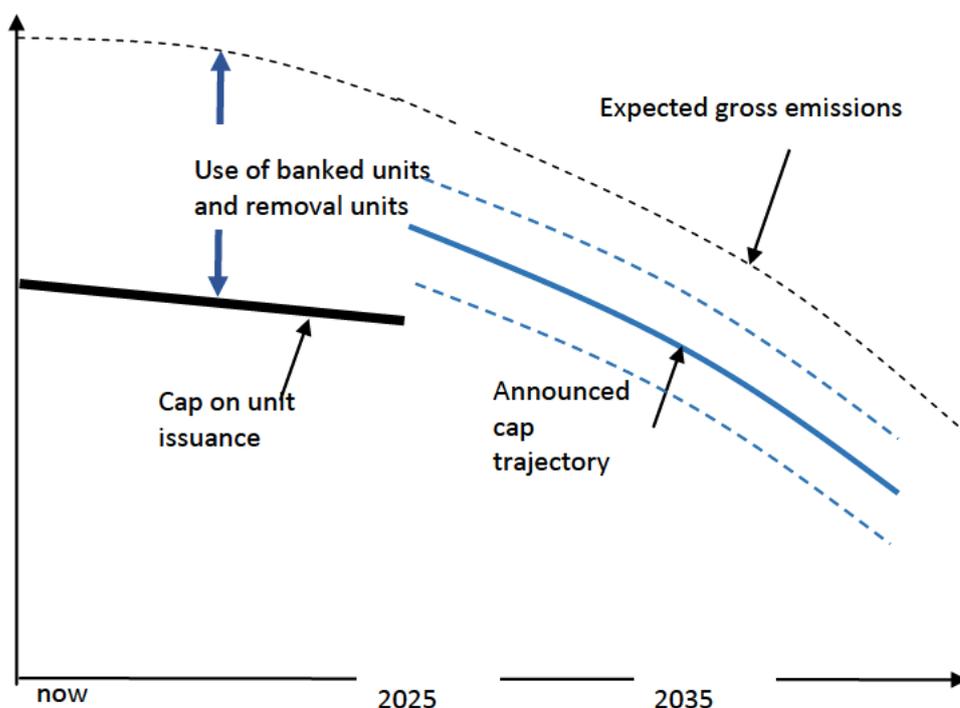
19. How should auctioned NZUs relate to other sources of unit supply in the NZ ETS, especially NZUs generated through forestry removals and/or international units?

An absolute cap on gross issuance of NZUs into the ETS (i.e. not limiting issuance for forestry and other removals) between now and 2025 could be set now. This could be fixed with limited, very clear exceptions. For example if agriculture were included in the ETS before 2025, the cap could be adjusted. A ‘unit reserve’ could be created to manage smaller changes (see below).

Because there is already a large bank of units in the NZ ETS, with a cap that is expected in advance to be achievable at moderate emissions prices (leaving a large part of the bank intact), unexpected variability in emissions above those that are expected can be absorbed without the risk of extreme prices (or lack of liquidity). If emissions easily fall below the cap and participants confidently anticipate tighter future caps they will bank units and prices will be relatively unaffected.

For the period beyond 2025, rather than setting a fixed cap now, an anticipated cap trajectory could be announced. It would need to be consistent with our 2050 goal and with a long-term trajectory to a very low-net-emissions New Zealand. As we get closer to 2025 and learn more about domestic and international mitigation options and as international cooperation continues to evolve, we could adjust this cap trajectory and translate the early years into a fixed cap to provide clear supply signals for at least 5 to 10 years. For example, the government could announce a fixed cap for 2025–2030 in 2020. This signal could be complemented by a ‘corridor’ around the cap, or a signal of an expected price corridor that would be acceptable. These would give further signals about how the future cap trajectory is likely to be adjusted as it is converted to a fixed cap.

The figure below shows how this might work conceptually. The cap would be associated with expected prices – and the cap corridor post-2025 with a price corridor. The dates chosen and the level and shape of the paths are all decisions to be made.



The level of the cap should be set to maintain domestic net emissions and emission prices within appropriate corridors that align with:

- The desired rate of domestic decarbonisation under a broader low-emission development strategy for New Zealand
- New Zealand's international targets and a decision on the extent to which capped versus uncapped sectors should bear the responsibility and cost for helping to achieve them.

Auctions would then be used to adjust supply to the desired level of cap. The auctioning mechanism could include unit reserves within the cap which can be used to adjust unit supply upward or downward in response to major shifts in demand (e.g. from large players entering or exiting the market or *force majeure* events), the availability of international units, and issuance of NZUs from forestry and industrial removals. This can provide a safeguard against both undersupply and oversupply in the market which could shift net emissions and emission prices outside the established corridors. This would provide a limited policy adjustment mechanism that balances the need for flexibility with the need for predictability of policy.

NZUs generated through forestry removals should be thought of simply as another form of mitigation (increased supply is economically equivalent to reduced demand).

We suggest that international unit supply should be quantitatively (as well as qualitatively) limited and potentially handled entirely by government. Any international units entering the system could be associated with an offsetting reduction in government issuance thus holding total supply constant. Alternatively as New Zealand creates or uses new mechanisms to fund international mitigation and receives credits, it will learn about the ease and cost of this type of mitigation and may choose to alter the stringency of the ETS. If international mitigation can be done credibly and cheaply, we may be able to loosen our ETS cap and slow our domestic decarbonisation. If international mitigation is difficult and costly we may need to rely more on domestic decarbonisation to meet our international commitments and will want to signal that clearly through a tighter ETS cap.

Other issues: managing price stability

20. What impact has carbon price volatility in the NZ ETS had on your business?

Not applicable.

21. Do you think measures should be in place to manage price stability?

Yes

Please explain your answer

Improving price stability and price predictability in an ETS supports low-emission investment by participants, helps to contain system costs at politically acceptable levels, and provides greater assurance to regulators about the system's outcomes, including the generation of auction revenue.

Under any future bilateral linking agreements, price management mechanisms will need to be aligned with those of the linking partner(s).

22. What do you consider are important factors for managing price stability?

Price volatility comes from three fundamentally different sources: poor ETS market function (e.g. lack of liquidity and price discovery); economic shocks that affect future supply and demand for units and hence price expectations (e.g. new technologies, macro-economic shocks); and policy instability. These different sources of instability suggest different responses.

The first, poor ETS market function, will reduce as markets evolve. Regular auctions will help price discovery and provide liquidity and a source of units to small buyers. Stronger financial regulation of ETS markets may also improve their functioning. The existence of a large bank in the New Zealand market provides automatic protection against short-term fluctuations in demand for units.

Maintaining a significant bank, while matching it with clear future stringency for the ETS cap so it does not depress prices, will continue to make the market resilient.

The second source of price changes is significant economic shocks that should be passed through to markets but where governments may wish to moderate the effect and adjust their own targets in response. For example, in a recession the demand for units will fall and prices should also, but given lower emissions and hence lower mitigation costs, governments may wish to make their targets more stringent in the long term. To signal this likely tightening response, the government could set a minimum ETS emission price. In contrast, if mitigation is harder than expected (at least in the short run) the government might want the flexibility to respond to this with looser short-term targets. This could be achieved through adjustments in the cap (or a unit supply reserve within that) but for large changes, it may be difficult for markets to anticipate government's supply response. Use of ETS price corridors may provide more certainty to investors during transitions to respond to significant new information.

The third source, policy instability, can be addressed through changes in the governance processes through which New Zealand makes short-term decisions with implications for long-term stringency in the ETS. A broad social mandate for action and cross-party agreement to de-politicise the issue and commit to long-term domestic decarbonisation would help. Specific stable governance mechanisms such as the United Kingdom Committee on Climate Change could be considered as options for New Zealand.

Specific mechanisms to manage price stability include:

a) upper price limits (eg, fixed price option, or a price ceiling implemented through an auctioning mechanism)

Providing an upper price limit can provide assurance to NZ ETS participants and help to build political comfort around implementing a more stringent cap. Any upper price limit should be set at a sufficiently stringent and increasing level consistent with pathways toward domestic decarbonisation.

A fixed-price option provides absolute price protection to ETS participants (a hard price cap) but shifts emissions liability (and costs) from ETS participants to the government (and taxpayers). Under the current NZ ETS design, fixed-price units cannot be traded or banked and the fixed-price option is intended to operate separately from the auction mechanism.

Implementing a price ceiling at auction would increase the supply of units available to ease prices. If the price ceiling mechanism was bound by the cap, the mechanism would provide greater certainty about emission outcomes but would not provide full price protection to NZ ETS participants (this is referred to as a soft price cap). Presumably all units purchased at auction would be eligible for trading and banking.

An interesting example of a price ceiling at auction within a cap is offered by the California ETS, which operates an allowance price containment reserve (APCR). Once a trigger price is reached, a fixed number of allowances can be sold at three increasing price levels until the supply is exhausted. In 2015, mechanisms were added to increase the potential supply of units to the APCR by transferring 10% of future allowance budgets and 10% of unallocated allowances from each vintage year into the reserves. The trigger price for each tier increases 5% per year plus the rate of inflation. In 2013, the starting trigger prices were US\$40, \$45 and \$50. This has not yet been tested; prices are still well below these levels. At some level of demand pressure the supply would be exhausted and the units would need to be rationed or the price allowed to rise.

b) lower price limits (eg, price floor)

Providing a price floor can help to incentivise low-emission investment. To support domestic decarbonisation, the price floor should rise over time. Three options for achieving a price floor are:

- Imposing a reserve price at auction
- Imposing a fee on the surrender of each unit; this would ensure a minimum price had been paid for imported or banked units as well as auctioned units
- Providing for the government to buy back units at a fixed price either with or without a quantity limit.

The California ETS also offers a successful example of a price floor at auction. In 2013 the initial level was set at US\$10 and it increases annually by 5% plus the rate of inflation.

c) other

A “quantity collar” mechanism allows units to be added to or removed from the market when triggered by shocks to the system. Triggers could include the number of surplus or banked units, or changes in production or economic conditions. This mechanism can help to contain prices but does not provide hard price protection. The Market Stability Reserve (MSR) under the EU ETS provides an example of this mechanism. It reduces auction volumes when triggered by a surplus number of units in circulation, and increases auction volumes when triggered by sustained high prices. A challenge in this system is defining how many units ‘should’ be in circulation – e.g. when they are ‘surplus’ and not simply legitimately banked. The value of the instrument for increasing price stability depends on its own predictability. While IETA suggested use of this sort of quantity measure rather than direct

price management, the MSR is offering pretty mixed experience so far. Economists generally support the use of mechanisms triggered by price rather than quantity because of their clarity.

Adjusting constraints on the quantity of international units through offsets or linking is another potential tool for price management.

23. What should the Government consider when managing price stability?

Decisions on price management mechanisms should be taken in conjunction with decisions on auctioning within a cap, free allocation, the supply of removal units, restrictions on the use of international units, and prospects for linking.

Maintaining the currently unlimited ability to bank units, and protecting banked units from risk of devaluation or confiscation also helps with price management. It encourages participants to bank units when prices are surprisingly low (thus raising them) and to hold liquid units⁵ in the bank that can be released to smooth unexpectedly high prices in the short to medium term.

A strategic balance needs to be struck around how much flexibility the government has to intervene in price setting by the market, and how predictable price intervention will be.

From 2008 to mid-2015, the NZ ETS was designed to reflect the international price in the domestic market. In the future, should New Zealand again be able to fund international mitigation and receive credit toward our target through linkage or bilateral agreements, the emission price in the NZ ETS should be allowed to diverge from prevailing international prices when necessary to support domestic decarbonisation at a strategic pace as well as market stability.

Providing a long-term corridor for intended emissions and emission prices consistent with a broader strategy for domestic decarbonisation will help to provide greater certainty to both market participants and regulators about how prices will be managed.

Implementing other regulations that affect emissions within capped sectors can impact on unit demand, emission prices and mitigation costs in an ETS. Potential interactions between the ETS and other regulations should be taken into account when designing both the cap on auctioning and price management mechanisms.

⁵ Not only units that are dedicated to meeting later harvest liabilities and are unlikely to be sold.

Other issues: operational and technical matters

24. Are you aware of ways the administrative efficiency of the NZ ETS could be improved?

Yes

25. Can you provide further information to support your answer?

The only issue that has come to our attention is the treatment of NZUs as financial assets. We understand that they are not covered by standard financial regulation. If this is true, it may not only pose risks to market participants and perception of the scheme but may also make the development of sophisticated market instruments to manage price risk and smooth flows of sequestration and storage in forests more difficult. We are not experts on this issue but conversations with various stakeholders have suggested that this issue needs attention.

Other issues: addressing barriers to the uptake of low emissions technologies

26. Are there any barriers or market failures that will prevent the efficient uptake of opportunities and technologies for reducing emissions?

Barriers to the efficient uptake of low-emission opportunities and technologies include:

- Low emission prices
- A lack of policy certainty on the government's long-term commitment to domestic decarbonisation and increasingly stringent international targets
- The need for enabling infrastructure for new technologies, especially for energy supply and transport
- Conventional market management and pricing models for electricity generation, transmission and distribution which are not conducive to increasing distributed renewable generation
- The slow rate of capital stock turnover in some industries
- A lack of easily accessible and practical information for businesses (especially SMEs), institutions and households on cost-effective opportunities for reducing emissions under rising emission prices
- High up-front purchase and learning costs and a lack of financing mechanisms
- A lack of training and certification programmes supporting the introduction of new technologies, and a lack of information on performance risks
- Conventional cost-benefit analysis which does not account for private and public co-benefits which are difficult to quantify
- A lack of funding support for domestic research and development as well as adapting emerging international technologies for application in New Zealand
- A lack of mechanisms for coordinating transformation across supply chains and across sectors
- Conventional resource consent, financing and insurance processes which discourage experimentation and innovation

- A lack of public education about the value of reducing emissions and practical mitigation opportunities
 - A lack of motivation by individuals to reduce emissions based on the understanding that collective action can make difference and others are also taking action.
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27. If so, is there a role for the Government in addressing these barriers or market failures and how should it do this?

The government can both act to address these barriers directly and facilitate supporting action by businesses, local government and civil society organisations. Key areas for direct government support include:

- Developing a cross-party agreement on New Zealand's commitment to domestic decarbonisation to improve policy certainty
 - Developing governance institutions to guide stable long term policy
 - Developing a cross-sector low-emission development strategy with input from key stakeholders to better align and coordinate policy development, action and funding across sectors and supply chains
 - Working with local governments, finance providers and insurance providers to facilitate innovation at the local level
 - Promoting better education about climate change mitigation in schools and universities and through community organisations
 - Providing increased funding for research, development, experimentation and commercialisation of new technologies
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Any other comments related to issues set out in the discussion document

28. Please comment here

NZ ETS review: Forestry technical note

The following questions relate to information presented in the Forestry technical note.

Existing structural design settings

F1. What do you consider are the strengths and weaknesses of the NZ ETS forestry settings?

Transparency of relationship between physical carbon flows and credit flows.

F2. Do the NZ ETS forestry settings discourage deforestation? If not, what settings do you think would?

Yes

If the ETS price were sustained at a level that reflects the value of emission reductions, deforestation would occur only when the value of an alternative land use on a given piece of forest land is higher than the value of carbon in that forest. Because deforestation can happen rapidly, avoiding any periods of low prices is critical to effectiveness.

F3. Do the NZ ETS settings incentivise afforestation and replanting? If not what settings do you think would?

Yes

Please explain your answer

The NZ ETS settings will incentivise afforestation and replanting if the price is sustained at a reasonable level and instruments are offered to manage price risk. This price risk comes primarily from policy instability. See discussion above. Incentives could be strengthened through instruments to manage patterns of sequestration and harvest liabilities across the New Zealand post-1989 forest estate (e.g. averaging) and through recognition of the carbon storage in harvested wood products. See discussion below.

F4. Does the NZ ETS provide effective incentives for smaller foresters to participate in the scheme? If not, what settings do you think would?

Unsure

Please explain your answer

We do not yet have public data that allows us to assess whether there is a problem with participation by small foresters. Many may currently be rationally choosing not to participate (those with forests planted in the early 1990s) and many of these will have forests that were not planted in response to the emissions price, so this is a good social outcome.

To the extent that some small foresters are deterred from responding to the price incentive, if the administrative costs associated with registering and participating in the scheme can be reduced through even more efficient systems that would help.

Small foresters who own (or would plant) a stand with a single age class currently have a lower incentive to afforest and participate than 'large' foresters because they can sell only 10-years' worth of credits without bearing price risk. Owners of a 'normal' forest with a range of age classes can potentially safely sell more than 15 years' worth of credits with no price risk. A better functioning NZU market could in theory offer financial instruments that would provide higher safe returns to small foresters: equivalent to the returns to 'large' foresters. These instruments may however be difficult for NZ's private sector to offer in the short term. Alternatively the government could offer those instruments directly.

Offering simpler options for participation – with lower value to participants (because incentives are not as closely targeted) but also lower transaction costs – and offering instruments that manage price risk associated with the harvest cycle, would also encourage participation and new planting by smaller actors. The Afforestation Grant Scheme (AGS) offers one model for limiting the need for reporting and managing credits; offering 'averaging' as a voluntary option could be explored further. The participants that are targeted (those deterred by high transaction costs and concerns about risk management) would likely accept lower value in exchange for simplicity.

F5. Does the NZ ETS work well alongside other forestry programmes? If not, how do you think these programmes could be better aligned?

The other price-based instruments (PFSI, AGS) should be regularly reviewed to ensure that the incentives they offer – and the value to government/taxpayers - align with the NZ ETS.

Future forestry accounting in the NZ ETS

F7. What are important factors when considering changes to forestry accounting settings in the NZ ETS?

Aligning private incentives with social (New Zealand and international) interests; simplicity and transparency – to reduce risk of poor decisions due to misunderstanding and administration and compliance costs; avoiding windfall gains to existing foresters; and (well-informed) international perceptions of New Zealand's true intentions to mitigate.

F8. Do you think a different forestry accounting approach in the NZ ETS would change the scheme's incentives for afforestation?

Yes

Please explain your answer

There would be little or no point in doing it if it didn't. It would probably be useful to avoid treating this as an equity issue if that is possible.

Averaging

F9. Do you think averaging should be introduced for post-1989 forests? If so, why?

Yes

Please explain your answer

Some instrument to allow 'small' foresters to benefit from the full value of the carbon in their forest would be valuable. This could be either a private market instrument or an instrument offered by government.

Do you think it should be optional or mandatory?

Optional. Some incentives are lost – e.g. the incentive to increase rotation length or carbon density. To operate in a simple way and without risk of perverse incentives or unintentional subsidy, restrictions will need to be imposed on the forest management decisions of those who choose averaging. These restrictions could be unnecessarily costly for some foresters.

F10. Should there be limits on the types of forests that can use an averaging accounting method? For example, new forests only or forests under a size threshold.

Unsure

Please explain your answer

In theory, averaging could be offered by a private actor. It would be useful to explore whether there are barriers to the development of private markets that could be removed so that government does not need to step into this role. If government does offer averaging, it should be designed to be profitable to government, not as a subsidy. Its target is smaller foresters that are unable to easily manage harvest liabilities and achieve optimal value from the ETS. It should be designed to reflect the value that could have been achieved by a forest through an ETS with a perfect set of financial instruments. It should take into account the government's discount rate, the risk that the government is assuming (both in terms of carbon yield from forest and price risk), and the potential for problems with enforcement, and the possibility of 'adverse selection' where those who choose averaging are those that will impose costs on government.

F11. How might averaging impact on your business decisions?

Not applicable

Harvested Wood Products

F12. Do you think deferred liability for emissions from Harvested Wood Products (HWPs) should be recognised domestically? If so, how?

Yes

Please explain your answer

Ultimately yes. These more accurately reflect the carbon value of forests so recognising HWP would be more efficient. It will lead to higher levels of afforestation and more emphasis on producing long lived grades of timber through species choice and management. The efficiency gains will be greatest for forests not yet planted.

Avoiding windfall gains to existing forests may have value if it can be done without introducing undue complexity. The ETS cap may need to be adjusted to reflect the greater net supply of units from forestry.

Deferring liability when land is deforested may have high cost and low value because land owners would need to be tracked for many years. Potentially the present value of the future stream of liabilities should be estimated and imposed immediately.

F13. How might the options for deferred liability for emissions from HWPs impact on your business decisions?

Not applicable

Other

F14. Do you have any other comments or things you think are important?

No

When your submission is complete

Email your completed submission to nzetsreview@mfe.govt.nz or post to NZ ETS Review Consultation, Ministry for the Environment, PO Box 10362, Wellington 6143.

Submissions on priority issues closed at 5pm on 19 February 2016

Submissions on other review matters close at 5pm on 30 April 2016.