New Zealand Emissions Trading Scheme Review Consultation

Submission from Scion on Priority Issues

Contact information

Name	Warren Parker
Organisation (if applicable)	Scion (New Zealand Forest Research Institute)
Address	[redacted]
Telephone	[redacted]
Email	[redacted]

Preamble

Scion

Scion is New Zealand's pre-eminent forest research organisation. Scion's core purpose is to drive innovation and growth from New Zealand's forestry, wood product and wood-derived materials and other biomaterial sectors, to create economic value and contribute to beneficial environmental and social outcomes for New Zealand. With over 60 years of experience Scion has:

- Undertaken substantial work with Government to provide authoritative technical information to support both policy development and policy implementation in the use of forest trees as a carbon sink.
- Worked extensively with the New Zealand forest owners and Government Departments to support their work to address the impact of the Emissions Trading Scheme (ETS) and matters relating to carbon sequestration in forestry.
- Managed a broad range of research programmes in partnership with the New Zealand forest industry to support economic development through forestry and forest products. This also includes science and innovation in relation to land-use within environmental limits, forest biosecurity (surveillance, eradication and protection) and market access; and mitigation of forest hazards (fire, wind and erosion/flooding).
- Led advanced research programmes to expand opportunities for wood processors including via new materials, bio-energy and specialty chemicals derived from forest biomass.

New Zealand's forestry sector

- The forest industry is New Zealand's third largest industry producing over $4.5 billion of export revenue and about $3 billion in domestic revenue per annum. The industry's strategic goal is to lift export earnings to $12 billion per annum by 2022.
- New Zealand attracts substantial overseas investment into forestry. New Zealand's natural climatic advantages, world class sustainable forest resources and management systems and tools, strong research base and political stability are all attractive to investors.
- New Zealand's ability to grow and utilise renewable forests for a wide range of products provides a strategic, competitive advantage that is expected to strengthen as markets for low carbon renewable composite materials, energy and biochemical products grow.
- There is a large and steadily emerging economic opportunity for provision (and monetisation) of forest ecosystem services beyond timber production such as carbon sequestration, improved water quality, flood and erosion protection; and biodiversity enhancement.

Summary of this submission

Planted forests present New Zealand a unique opportunity to contribute to mitigation of climate change impacts through: carbon sequestration within trees, "climate friendly" products, renewable bioenergy and the provision of environmental services such as land stability and flood risk minimisation. Importantly, increased forest plantings will also assist New Zealand's efforts to adapt to and exploit the effects of climate change.

The primary and practical means to encourage new and replanting of forests is to ensure that the Emissions Trading Scheme (ETS) provides a clear and sufficient carbon price signal (>$15/t CO_2e) to incentivise behaviour and investment change toward lower emissions technology, systems and practice. A stronger ETS price signal would also encourage much higher priority than at present to be given to investment into science and technologies which will assist New Zealand manufacturers to invest in and adopt renewable, bio based alternatives to fossil oil derived materials (such plastics and other forms of packaging from forest biomass) and decarbonise their supply chains. Likewise a clear carbon price, would incentivise industrial heating in the manufacturing sector to prepare and seriously plan now for a transition from coal (e.g. South Island dairy processors) to renewable, carbon neutral energy sources such as special purpose, short rotation, "energy forests" located relatively near to the processing plants. A strong co-benefit of an effective ETS will be will be improved water quality and increased biodiversity through more forests.

Agriculture, as originally intended, should be introduced to the ETS because of its high exposure to climate change impacts and to respond to competitors with low environmental footprints (such as synthetic milk; insect-sourced protein). It is obvious from the high public cost of post 2008 deforestation, that continued exclusion of agriculture will distort the market for land (impacting the viability of alternatives with lower emissions), place an unfair burden on other sectors who face no lesser challenges to decarbonise (e.g. heavy transport) and most seriously, from a strategic perspective for the New Zealand economy, not encourage agriculture to begin earnest work now to adapt to the new reality of low emissions food and fibre production. The other transitional measures introduced at the time of the Global Financial Crisis (such as the 2 for 1 subsidy) also prevent the market from functioning correctly and are no longer justified.

Context and drivers for the review

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

Yes. The first two drivers (improving performance of the NZ ETS against its objectives and preparing for a more carbon-constrained future) are essential. A properly functioning ETS will also assist New Zealand meet its international obligations and reduce net emissions below "business as usual" levels. We would like to see more attention being paid to achieving both gross and net emissions reductions. The Paris agreement will almost certainly entail further obligations for New Zealand to reduce emissions. In light of the long time frames required to mitigate and adapt to climate change certainty about future policy settings is important for business (and public sector) planning and investment. The goal should be an ETS that drives real reduction in emissions, supported by mitigation approaches such a tree planting, leading to advantages for New Zealand businesses.

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

All sectors need to be included in the ETS to create a level playing field or the market will not function as intended. The most significant factor that excluded from the review is the continuing exemption of the Agriculture sector from facing obligations under the ETS. This is a lost opportunity to encourage investment change toward lower emissions technology, systems and practice and it distorts the market for productive land. This distortion effectively constrains the land available for afforestation, and removes the incentive to create on-farm diversity for long term economic resilience. It also presents a possible future risk to marketing New Zealand's products overseas.

Given the slow movement to low carbon technologies, forests are recognised as the most significant immediate and practical contributor in combating greenhouse gas induced climate change through their capacity to sequester carbon and thereby make a significant positive contribution to New Zealand's greenhouse gas balance.

In addition to carbon sequestration, forests provide both direct and indirect climate benefits. Specifically:
- Direct returns from wood fibre etc. (a carbon neutral resource).
- Direct returns from energy production (offsetting fossil fuel use).
- Indirect returns through stabilisation of land, and enhancing air and water quality.
- Indirect returns through minimisation of impacts on other land users from storm events.
- Potential carbon storage and improvement in soil nutrient status through the application of biochar.

Low nutrient (and other resource input) forests are generally viable on what is otherwise marginal land and hence do not compete with intensive food production. In fact forests complement pastoral livestock production through mitigation of off-site impacts such as protecting waterways from nutrient run-off.

With the increased likelihood of extreme weather events forecast under climate change scenarios, forests can contribute a degree of resilience beyond that of many other production systems e.g. drought tolerance; reduced erosion, reduced storm water flows.

These wider co-benefits of forests[1] should be considered when considering the net cost of policy instruments that encourage afforestation for carbon sequestration.

Moving to full surrender obligations

3. **Should the NZ ETS move to a full surrender obligation for the liquid fossil fuels, industrial processes, stationary energy and waste sectors?**

Yes. We believe that the conditions that led to the extension of the transitional measures no longer apply. These transitional measures include:
– 2-for-1 unit surrender for non-forestry participants;
- capped price of $25;
- no emissions obligations for agriculture; and,
- no reduction in the free allocation to emissions-intensive and trade-exposed activities.

Removing these measures would stimulate investment in low-emissions technologies and mitigation practices. The impact is likely to be limited because the proposed move to full surrender obligations considers only the first two of these measures, and the discussion document further states that *"if the one-for-two surrender obligation is removed, the amount of free allocation provided to emissions-intensive and trade-exposed activities will automatically be increased to correspond with the increased surrender obligation.*" Therefore the removal of the 2-for-1 surrender deal will need to be accompanied by the inclusion of agriculture under the trade-exposed free allocation scheme and a phased reduction in the free allocations.

Removal of the 2 for 1 would also encourage this 'protected sectors' to invest more in science and innovation (including adaption of offshore technologies) to improve their "carbon competitiveness".

4. What impact will moving to full surrender obligations have on you or your business? Please include specific examples or evidence of the impacts on you or your business of:

a) increased carbon prices, including actions to reduce emissions and future investment decisions. Please comment on effects that may occur at carbon prices ranging from $5 to $50, including any evidence of actions taken previously when carbon prices were higher.

b) any NZ ETS administrative or operational issues, for example the option for participants to apply for a unique emissions factor.

We have no comment to make at this time.

5. If full surrender obligations are applied, when should this be implemented?

a) 2016; b) 2017; c) 2018; d) other – please specify

[1] Yao, R. T., Barry, L. E., Wakelin, S. J., Harrison, D. R., Magnard, L. A., & Payn, T. W. (2013). Planted forests. *Ecosystem Services in New Zealand—Conditions and Trends. Manaaki Whenua Press, Lincoln, New Zealand*, 62-78.

Outline the reasons for your answer, and include any comments on the pros and cons of applying an increased surrender obligation to a partial or a full NZ ETS reporting year.

If the conditions used as justification for extending the transition period no longer apply, full surrender should begin immediately. A longer transition will further delay the desired change in investment behaviour. If a transition is to be used, it should start at the beginning of a full ETS year to reduce complexity and make understanding and compliance as easy as possible.

Managing the costs of moving to full surrender obligations

6. If the NZ ETS moves to full surrender obligations, should potential price shocks be managed? Yes/No/Unsure

New Zealand is an export-lead market economy, and businesses are well used to managing uncertainty over factors such as commodity prices and exchange rates. The scale of changes in carbon price has been much less than fluctuations in other factors such as oil price, so it is doubtful whether carbon price shocks are likely. What is required is certainty over Government's approach to the ETS and policy stability over time. If Government intends to intervene in the market then the trigger conditions and nature of the intervention need to be clearly set out in advance.

7. If potential price shocks associated with moving to full surrender obligations should be managed, how should this be done?

a) maintain the fixed price option at $25

b) lower the fixed price option

c) gradually move to full surrender obligation

d) other methods.

8. If the $25 fixed price surrender option value should change, what should it change to and why?

The fixed price of $25 is likely to be adequate in the short term.