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Committee Secretariat
Emissions Trading Scheme Review
Parliament Buildings
Wellington



Submission on: Review of the Emissions Trading Scheme and related matters

1. Executive Summary

1. The Bioenergy Association of New Zealand (BANZ) supports the development of an Emission Trading Scheme (ETS) provided that there are other complementary mechanism, and provided that the ETS is structured to provide business with long-term surety of policy on which to base planning decisions.
2. Bioenergy offers multiple benefits such as regional and sustainable job creation, energy resilience, a healthier forestry industry, more carbon sequestration, lower embodied carbon in New Zealand exports, a lower cost base for New Zealand organisations etc.
3. Bioenergy can also contribute significantly towards achieving the goals of the ETS and the Kyoto agreement to which the New Zealand Government is committed. The strategies must foster the widest use of a fuel resource that is plentiful and sustainable.
4. BANZ believes that the ETS alone – as a ‘stick’ mechanism – will not be effective in helping New Zealand to realise the multiple benefits that bioenergy can deliver. Complimentary ‘carrot’ mechanisms are also essential to achieving greater uptake. The main two we favour are :
 - Given the current scarcity of capital, the most effective complimentary mechanism would be a beefed-up contestable capital grant system, similar to the Wood Energy Programme. This scheme is already being administered by EECA with an expert industry panel of advisors, and will run out of funds very soon. This Wood Energy Programme provides a ready-made conduit through which more funds could easily and quickly be channeled to stimulate energy infrastructure projects and create jobs. The current cap of \$200,000 per project needs to be raised significantly.
 - The roll-out of more Pilot Schemes, similar to the Renewable Heating for Schools programme run by EECA, are an excellent way to get real projects out into the communities. Similar Pilot schemes at Hospitals, Prisons, Schools etc. would be a major

stimulus to encourage other wood energy projects in the vicinity, providing sustainable local jobs and a boost to the local forest industry. EECA already has the team in place and the in-house expertise to quickly roll-out further pilot schemes.

- Accelerated depreciation provisions for renewable energy investment to encourage their uptake
5. We believe also that the ETS should contain specific provisions to facilitate initiatives to increase the amount of forestry and to grow fuel crops, on marginal or previously forested land, to provide fuels that can displace coal and gas usage, and provide a raw material for future development of ethanol and other second-generation products.
 6. This submission believes that, with the right mix of policies significant penetration of biomass fuels, displacing hydrocarbons, can be achieved using partial Government finance to overcome the private sectors reluctance to invest at this time, thereby unlocking significantly more private finance to fund such infrastructure projects. This would deliver construction-related jobs as well as ongoing jobs in the wood fuel supply chain in local communities.
 7. With the right blend of the ETS and complimentary schemes, New Zealand has the natural resource and expertise to put together its own New Green Deal to use this time of economic crises to begin the transition to a more robust, lower carbon and lower cost economy.

2. Introduction

8. This submission is made by the Bioenergy Association of New Zealand (BANZ), which was established in 2001. BANZ represents a broad range of stakeholders who have a commercial interest in bioenergy, including foresters, wood processors, large energy companies, specialist service providers, energy users, equipment manufacturers, renewable energy proponents and well established sector consultants.
9. Members of BANZ promote the broader use of wood, woody biomass and wood-wastes to industrial heat users and often encounter barriers that inhibit increased investment in bioenergy facilities. The content of this submission reflects some eight years of BANZ's collective experience in this specific field, and significantly more when individual members' experience is considered
10. We do not suggest that this submission offers the whole answer to New Zealand's carbon deficit. Neither does BANZ want to over-sell woody biomass as a solution in itself to New Zealand's growing emissions profile. However, we do believe that policies to encourage the use of woody-biomass, replacing coal or gas, in the industrial heat and power sector as well as at other heat-using facilities such as Hospitals and swimming pools, have not been adequately considered. In this respect there is a danger that the opportunities remain un-tapped instead of playing a significant part in the overall solution.

Contribution from Bioenergy

11. Given New Zealand's world-leading woody biomass resource, significant opportunities exist in the industrial heat and power sector as well as in other heat-intensive sectors such as hospitals, schools, swimming pools, prisons etc for a major contribution to achievement of the goals required under the Kyoto agreement. These opportunities include:
 - Materially reducing New Zealand's carbon emissions
 - Reducing the energy and heat cost to New Zealand organisations
 - Creating jobs at a local/regional level which are sustainable
 - Improving the returns to the forest industry
 - Increased forestry plantings and therefore carbon sequestration
 - Enhancing security of energy supply
 - Improving New Zealand's image and performance as a clean and green producer of goods
 - Enhancing New Zealand businesses' marketing efforts in the face of growing concerns about carbon intensity
 - Providing new green agricultural opportunities through the growth of fuel crops
12. However, currently bioenergy opportunities tend to have an economic return equating to a payback of six to seven years or more. It is clear that if an objective is to encourage organisations to increase their investment, the payback time needs to be significantly reduced. The challenge becomes implementing policy that reduces this to a timeframe that will satisfy the financial hurdle rates of our organisations. With clear and strong signals about the long-term direction of energy and climate change policies, via the implementation of an ETS coupled to a complimentary grant scheme and accelerated depreciation, the payback period can be reduced to four to five years which will be sufficiently attractive for many to make the switch.
13. Successfully encouraging New Zealand's primary industry processors and other heat-intensive users such as hotels and leisure facilities to reduce their consumption of hydrocarbon fuels and therefore carbon emissions will, over time, provide them with a marketing advantage in their overseas (and possibly domestic) markets. As the "food miles" debate becomes more objective, and given New Zealand's already high percentage of renewable electricity, this should provide a much stronger marketing message for industry to utilise to positively differentiate New Zealand produce and tourism in the marketplace.
14. Through sustainable forestry harvesting activities, NZ produces woody-biomass equivalent to around 30-40PJ of natural gas per year – a good-sized gas field. Current harvest is around 20 million tonnes, but this is forecast to grow significantly as more of the wall of wood is harvested. Even if only a percentage of these wood residues are recovered, this still represents a substantial carbon neutral and sustainable energy source that is currently being under-utilised.
14. There is increasing interest in the growing of fuel crops to provide a green fuel resource that can displace hydrocarbon usage. Canola is already grown in Canterbury for the production of biodiesel and growing trials of crops such as salix, miscanthus and jatropha are

underway. Economic measures such as an ETS are, generally, required to make such production economic.

15. A particular anomaly in the currently proposed ETS scheme is the requirement for the payment of a carbon cost associated with deforestation, even if fuel crops replace current forests. This is a clear impediment to such developments despite clear evidence that fuel crops can provide materially better outcomes in terms of carbon emission reductions than forests given their use to displace of hydrocarbon fuel usage, in addition to the actual sequestration of carbon by the plant itself.
16. This submission refers to woody-biomass and transport biofuels but also covers bioenergy from other sources of organic waste. Many of these opportunities use anaerobic digestion processes, have commercially significant scales and have wide potential application in the waste treatment, primary processing, food processing and farming sectors.
15. A mix of measures included in an ETS scheme to foster the uptake of bioenergy solutions would create a broad range of options for the reduction of emissions. These include, amongst others:
 - Fuel switching, such as conversion from coal to gas, to biomass for the generation of heat and electricity.
 - Retrofitting of on site co-generation to burn biomass.
 - Woody biomass or wood pellets for heat production (hot water, hot air or steam).
 - Co-firing of coal boilers with some wood waste.
 - The digestion of organic matter to produce heat, electricity and fertilizer.
 - The growth of bio-energy crops to provide a green fuel: replacing coal or gas, and potentially producing bioethanol or Biodiesel.

3. BANZ Recommendations

16. Carbon charge: It is recommended that the ETS is used to incorporate a carbon charge across the New Zealand economy that reflects the economic and environmental costs of the carbon emitted by the combustion of hydrocarbon fuels or other causes of emissions.

This may be subject to transitional arrangements to protect economic activity where required, but in all cases a clear signal should be sent that supports the uptake of abatement measures such as switching to biomass as a fuel.

17. The boosting of funds available for contestable capital grant schemes that foster renewable energy uptake, such as the Wood Energy Programme already being administered by EECA with an expert industry panel of advisors.

18. The roll-out of further pilot schemes targeting other heat-using sectors, to capitalize on the success of the EECA scheme "Renewable Heating in Schools".
19. Accelerated depreciation provisions for renewable energy investment to encourage their uptake. Bioenergy plant is capital intensive, but generally has low operating costs. The upfront capital cost is a barrier compared to lower cost, higher operating cost fossil fuelled plant.
20. R & D grants for activities focused on new technologies related to green energy and to the establishment of new fuel supply initiatives including the growing of fuel crops.
21. Fuel crops: It is recommended that the existing ETS scheme be amended to remove the obligation to pay a carbon charge associated with de-forestation where the forests are replaced by the growing of fuel-crops; subject to demonstration that the sum of the carbon sequestered in the ground and the carbon reductions from the use of the crop to displace fossil fuels is greater than the carbon sequestration benefits of the growing of forest this replaces.

4. Timing of Decisions

22. The longer that policy decisions are delayed the more difficult it becomes for "New Zealand Inc" and for industry to be competitive in the carbon-constrained world into which we are headed. In this respect, even though detailed decisions regarding the post 2012 world cannot be made at this time, there needs to be strong signals to stakeholders, to the effect that emitters will be facing a considerable price for carbon emissions after 2012. What we do need are clear decisions ideally with cross-party buy-in and clear and strong messages to all stakeholders.

The association would like to be heard in regard to this submission.

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