

## Reforming the Emissions Trading Scheme: Proposed Settings

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This submission is supplied in response to Government proposals concerning reforming the Emissions Trading Scheme: proposed settings, described in the discussion document.

I wish to make the following points:

There are clear benefits for society and the environment as a consequence of reducing air pollution, fossil fuel consumption and decoupling productivity from the oil industry. This is an admirable objective and something we all should strive to achieve.

There are opportunities for both Government and society to achieve widespread, and well received changes to our emissions profile as a nation, and in particular to achieve these objectives while simultaneously improving biodiversity, social wellbeing and our economic resilience to climate change.

The approach being adopted currently does not consider the environment as an ecosystem of the whole - consisting of terrestrial, aquatic, atmospheric and subsoil environs, interacting continuously with climatic, geological and human influences. This oversight currently ignores the capacity for these interactions to play a crucial role in our mitigation, defence and adaptation to climate change.

The allocation of units and their subsequent auctioning (free and 'earned') is a mechanism which directly considers only three of the possible influences – market demand (human influence), land availability and biomass (tree) accumulation above ground.

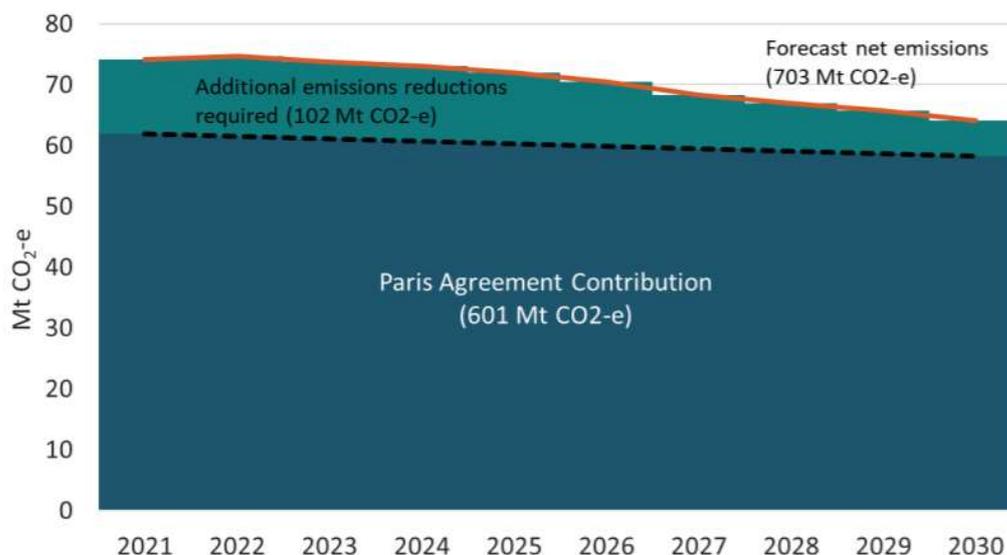
The Emissions Trading Scheme is both overly complex as a system, and overly simplistic in its interpretation of 'mitigation benefits'. This creates an artificial and yet lucrative market for both speculators and foresters which has no beneficial effect on New Zealand's ecological outcomes, economic activity or social wellbeing. It merely adds a process which will cost businesses in terms of administration and compliance, will cost society as a result of perverse afforestation incentives, and will heavily burden our landscapes with exotic and invasive species whose primary aim is to accumulate biomass, rather than to enrich the flora and fauna indigenous to Aotearoa.

A genuine desire to improve the resilience of the New Zealand environment and economy would require a focus on an 'ecosystem of the whole' in addition to gross emissions reductions targets, and sustainable planned regeneration programs sponsored by landowners and communities.

Gross emissions reduction targets are not mentioned at any point within the discussion document, instead the focus throughout remains on 'net emissions reductions', which will be driven by placing a cost on the price of emitting. This argument fails to adequately recognize the likely consequences should offsetting remain far more affordable for most emitters than actual emissions reductions. This will therefore capture the market until such time as the cost to substitute is approximately equal to the cost of offsetting. This will take decades and will primarily be determined by the price of land.

The likely outcome of an ETS design which provides a guaranteed minimum price, and a corresponding stream of credits (of which the value is essentially underwritten by the NZ Government) is to promote a structural framework which locks businesses into a 'buy your licence to emit' culture. Once created

**Figure 1: Forecast emissions and Paris Agreement Contribution emissions budget**



Mt CO<sub>2</sub>-e = million tonnes of carbon dioxide equivalent.

this default setting will take decades to undo and replace with a genuine 'seek efficiencies and lower emissions' culture. This will occur for the following reasons:

- There are few (if any) barriers to offsetting using afforestation
- The lowest cost option for participants in the ETS who accumulate liabilities will continue to be offsetting using afforestation until the carbon price reaches extreme levels.
- By this time the land price will have increased by an equivalent multiple, and behaviour change will only begin in earnest once land supplies at any price have dried up and no further 'offsetting' options remain.

The consequences of such a design scheme for the New Zealand economy should be obvious to anyone familiar with the relationship between forests, ports, roading infrastructure and the commodity cycles inherent in primary industries.

This risks an enormous redistribution of wealth across the New Zealand economy, and structural changes leaving New Zealand more reliant on a single product (logs) and a single market (china). If we assume the best-case scenario, whereby some alternative technology emerges which enables emitters to reduce their footprint organically, the natural reaction of the market should be a fall in price. The proposed price control prohibits this from occurring, therefore eliminating the natural risk (for foresters and speculators) associated with doing any kind of business.

Therefore, it is not possible for a reasoned person to accept the proposals to implement a price floor, and I submit in opposition to this.

In a global market which is deeply risky and offering sluggish (in some cases negative) returns, such a guaranteed scheme will attract immediate attention and large-scale investment. The returns from which will be traded on the NZ ETS Auction platform and profits extracted to the investors home country.

In the absence of any controls in this space, the result will likely be a significant draining of the New Zealand economy and subsequent inability to afford the mitigation measures required to future proof our infrastructure, communities and environment in coming decades.

There is an urgent need to review the ETS as a mechanism for lowering emissions, to reform its purpose to prioritise real and sustained reductions in emissions and to provide due regard for the likely outcomes of creating a fast track emissions 'currency' which will be minted solely in the provinces, at the expense of current land uses, economic diversity and ecological integrity.

## Recommendations

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-Delay the adoption of the ETS reforms (in particular the cost containment reserve and price floor) until it can be shown that this system will contain the appropriate limitations and controls to ensure that the outcomes outlined above are not possible.

-Consider whether further (from the date of adoption of the ETS amendments) NZ units should be earned and held by the NZ Government (as they were originally intended to be) and only released in a controlled manner which aligns with the 'whole of ecosystem' concept, prevents indiscriminate afforestation and limits the degree to which the forest industry would come to depend on carbon as its primary income stream. This would have the following beneficial effects:

- Forests with good management techniques, producing high quality lumber would be retained
- The incentive to 'plant and leave' exotic forests could be limited
- The inefficiencies which rapidly develop in any subsidised industry could be avoided and undesirable behaviour minimised
- Foreign investment into productive enterprises (rather than accounting ones) would be supported.
- A higher carbon price could then be decoupled from the price of land and limit extent to which industry would consider 'offsetting' as its default source of mitigation – thereby encouraging faster innovation and a clearer pathway to reductions in actual emissions.
- The potential would also then exist to decouple the carbon price per unit for sequestered carbon, from the cost of liabilities per unit. This would again enable tighter control of the carbon market, limit the extent of speculation and provide government with a mechanism with which to support sustained environmental and biodiversity gains.

## Conclusions

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Finally, the proposals relating to carbon markets and their administration are ultimately reliant on the supply of land currently supporting the main mechanism of providing credits (forests). It therefore critical that the impact of implementing any system take full account of how the broader mechanism will impact land users, their families and the economy at a regional level who depend on them.

It is not possible to achieve a 'just transition' when the burden of the nation's emissions reduction targets will be forced upon rural and provincial New Zealand with no regard for the social and economic and environmental harm this mechanism will wreak.

For these reasons this submission is intended to highlight concerns not only about the proposed setting and the outcomes they seek to achieve, but about the ETS itself as a mechanism for effecting change.

Thank you for the opportunity to submit. Please consider these recommendations and feel free to get in touch should you have any questions.

Sincerely Kerry Worsnop

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## Case study: Burnage Station

Size: 1354ha

Area in pasture: 1100ha

Area in bush: 254 ha

Altitude: 400 to 900m

Rainfall: 1800mm

Houses: 3

### **Stock carrying capacity:**

Sheep: 7076    Cattle: 537

Total stock units: 9,299

Stocking rate: 8.5su/ha



The first property in the Gisborne region has sold to Carbon Forestry, the trees are not intended for harvest. This sale took place in early December and the property is yet to be planted.

### **Sale process:**

The farm was sold by tender. Of the offers received, three were from farming buyers and two were from carbon forestry investors. No offers were received from production (plantation) forestry interests due to the farm's distance to port and attitude.

The purchaser did not require OIO approval, being a New Zealand company.

The farm does not have detailed financial accounts available for the 2019 year however the Agfirst database provides the following information from which a comparison can be made with the 'average' hill country farm in the region.

At 1100 hectares effective, the case farm is almost the same size as the average Gisborne hill country farm. The property is higher altitude than most comparable properties and has fewer paddocks which will result in lower per hectare production and profitability.

Based on the known three-year district average gross farm revenue figure of \$964, the case farm is likely to have generated between \$850 and \$900 per hectare, or approximately \$962,500 (assuming GFR of \$875/ha).

Generating this revenue incurs operating costs on a continuous seasonal cycle. The farm management and operations are undertaken in a way typical of any hill country farm of its type, requiring inputs and services year-round. The direct and secondary employment generated by the Case farm is illustrated below.

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### **Farm business/employment relationships**

The case farm previously employed a farm manager and his family, 5 days shearing per year for approximately 10 shearing gang workers, in addition to part time employment for a casual musterer and a fencer.

The property was serviced by a local farm merchant store, employed the veterinary services of a local vet, scanning services of a sheep scanner and store stock was marketed through a local stock agent and transport was via a local stock trucking company.

The farm was maintained using the services of a nutrient advisor and fertiliser supplier, products delivered by truck drivers included timber, livestock, fertilizers and farm bulk fuel. Tracks were maintained using a local digger operator on an annual or biannual basis.

The farm business was serviced by local postal services, telecommunications providers, electricity providers, plumbers and electricians, in addition to the motorbike and vehicle mechanics responsible for servicing farm vehicles and motorbikes.

The wool produced from shearing was marketed by a wool merchant and transported to the wool-store by the wool-buyers freight driver.

Pest and weed control was carried out by the Farm manager and if needed, by helicopter using an Agricultural Helicopter operator. Pasture improvement was undertaken using local field technician, tractor contractors and seed purchased from local seed suppliers.

Fertiliser was applied using a local aerial topdressing firm, applications require the services of both a pilot and loader operator.

The business also utilised the services of a lawyer, accountant, banker and insurance company.

The primary product produced from the farm was lamb, which, when processed at the local meat processor employed 150 individuals for 2.5 shifts (at a processing speed of 2000 lambs per shift). The products themselves are then trucked to port (Napier) for export and by-products (offal and pelts) are transported to Fielding for further processing.

Additional production from the property included store cattle, aged ewes and aged cows and bulls. All of which require processing, transport and marketing in the same way as demonstrated above.

In total this business had regular transactional relationships with over 30 businesses, without including the personal expenditure of the Farm manager and his family.

The property retained over 20% of its area in native bush, operated at low stocking rates using an all grass system and few chemical or fertiliser inputs. This property embodied the concept of Te Taiao

and should have formed the basis of our competitive advantage as a natural producer of sustainably and ethically grown, carbon neutral food.

Instead this property will be used as a carbon sink to enable the ongoing emissions from consumers of industrial fossil fuels. In 49 years' time it's job will be done and the exotic forest will be left as a fire hazard, a source of wilding conifers and pests; meanwhile the local economy will have forgone tens of millions of dollars.

Just from one farm.

Business relationships	Pastoral Farm	Carbon Farm
Direct Employment	Farm manager Casual fencer Casual musterer Shearers X 5 (5 days) Presser x1 Wool technicians x 5 (5 days) Contractor -cropping Aerial topdressing pilot Topdressing loader Vet Sheep scanner Helicopter operator Digger operator	Forest manager Planting crew X 100 (20 days) Pest control contractor (2 weeks)
Farm services	Field technician Fertiliser Rep Farm merchandise retailer – account manager Mechanic – tractor & motorbike Mechanic – Farm vehicle Seed/chemical supplier Freight operators - stock trucks - fertiliser delivery - bulk fuel delivery -bulk farm delivery (fencing materials)	
Customers/processors	Ovation meat works – 150 employees for 30 hours (for 4500 lambs and 500 ewes) Affco meat works – information not available	
Professional services	Accountant Lawyer Bank manager Insurance broker	Accountant Lawyer Bank Insurance
Service providers	Electricity company Telecommunications and internet Postal services	

One off investment

## Enterprise profitability – as a driver of land-use change

Status quo	Pastoral Farming	Carbon farming
Gross Farm Income per hectare (status quo)	\$875	\$500
Farm expenses per hectare	\$619	\$30
EBIT per hectare	\$256	\$470

Table 3

### Notes:

Carbon income- Assumptions include that tree growth and therefore sequestration will be below the regional average due to altitude – estimated at 20 units per year, and that the price is \$25 per unit.

Carbon costs – assumed to be those annually incurred for administration of the ETS account, rates and insurance.

Pastoral Farming income – taken from the district average and revised down to \$875 per hectare (again due to altitude)

Pastoral Farming costs – taken directly from the district average – does not include interest, rent or tax

### Case study conclusions:

This property was purchased when the carbon price cap had yet to be lifted. Should the carbon price double – reaching the proposed cost containment reserve of \$50, the price payable by carbon foresters effectively doubles also – reflecting the fact that almost all carbon revenue is earned net of costs.

This property sold for \$7,000 per hectare.

At \$14,000 per hectare carbon forestry would be able to purchase virtually any land in Gisborne beyond the Poverty Bay flats.

The revenue generated and cycled through the regional economy under pastoral farming will not occur once the case farm is planted and becomes a carbon farm. Many local businesses will no longer be needed to service, supply or purchase products from this property.

The ongoing costs incurred by the carbon farming enterprise will be limited to rates and insurance, both of which will be substantially reduced as the value of the underlying land asset is reduced by the establishment of untended exotic forest canopy.

The ongoing question as to who will be responsible for this land, its pest control and rates obligations once it reaches maturity and no longer provides income to the landowner remains unknown.