



NEW ZEALAND **CARBON FARMING**

Productivity Commission Low-emissions Economy

Response to issues paper

5 October 2017

Submission to:

New Zealand Productivity Commission,
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About New Zealand Carbon Farming Group

- New Zealand Carbon Farming Group (NZCFG) are carbon farmers. We buy, lease, and plant trees to produce carbon credits.
- We are a 100% New Zealand owned and operated company that has been in operation for 8 years.
- We are the fourth largest carbon farmer in the world
- We are the largest supplier of carbon credits in Australasia, providing more than 2 million credits p.a.
- We are the largest post 1989 participant in the ETS.
- We have 67,000 hectares of forests in New Zealand – 25,000 owned (land and trees) and 42,000 leased from 6,000 forest owners.
- We operate in both the forestry and the Emitter sectors. Stakeholders include BP, Contact, Fonterra, Forest Enterprises, Genesis, Mighty River Power, Mobil, Ngati Porou, and Shell.
- We have partnerships in place with Iwi forestry groups, and provide advice to the Iwi Leadership Group.
- Since 2012, we have planted more than four million trees and, with a stable credit price at or above \$18.50, we have pledged to the Government that we will plant a further 20,000 hectares of new permanent forests.

What we do is good for New Zealanders, good for the environment and good for our shareholders.

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Introduction

Thank you for the opportunity to present our views on the questions raised by the Productivity Commission's August 2017 Issues Paper.

The Inquiry task has been aggregated within two broad questions,

- What opportunities exist to transition to a low emissions economy and retain our standard of living and well-being?, and
- What mechanisms can be used to make that transition happen?

Our responses have been framed with those broad questions in mind, along with an overarching theme that the solution lies in domestic reduction, mitigation, as well as adaptation. It is the view of New Zealand Carbon Farming Group (NZCFG) that New Zealand can only achieve its 2030 emissions target by undertaking immediate actions such as carbon forest planting, whilst at the same time introducing long-run expectations around reduction and adaptation. Only such a 'layered' approach will achieve our targets. However, time is running out.

The Commission in its description of the aim and scope of the inquiry noted that it will need to identify which pathways were going to achieve the kind of changes needed in economic activity, without sacrificing our standard of living, in order to achieve our emissions targets. We agree this search for answers is at the core of the challenge ahead, but our submission will argue that the country is already close to a tipping point, with respect to our ability to achieve our initial target - to reduce our emissions by 30 percent below 2005 levels by 2030.

If we don't meet that target, our chances of meeting the more ambitious and fundamental reduction targets further out to 2050 are at risk. It will also mean that we will not be in a position to contribute our fair share in terms of further reduction commitments when the Paris Treaty planned target reviews occur post 2020

Where is New Zealand currently at?

New Zealanders are exhibiting an increasing desire to take climate reduction action within our borders. With the early implementation of the Emissions Trading Scheme (ETS) we have had the tools in place for some years to enable the delivery of this action. These tools are widely accepted and are fit for purpose.

Climate change as a science and the issues related to this are broadly accepted in New Zealand, including a consensus on taking action among all major political parties. Since the Paris ratification, there have been a growing number of businesses, public entities,

and individuals seeking action, or putting targets in place. In addition, New Zealand has an ETS that has been in operation for some time, is well accepted, and can achieve the outcomes envisaged for it, once the weakening transitional measures are removed.

However, despite this head start, New Zealand has been weak on actions with regards to climate reduction, meaning we are now in a position of being a laggard. The investment by New Zealand business in carbon adaption or reduction is low compared to others in the developed world. In addition, emissions are forecast to continue to increase across all sectors and deforestation is also on the increase. This is putting New Zealand at risk of being behind its trading partners in terms of transition to a low carbon economy and the benefits that are delivered by early capture of this position. The future likelihood is that we will be out of step with the expectations of our more committed trading partners and will therefore be further disadvantaged.

Although, we have the frameworks and tools in place for actions, our approach risks New Zealand continuing to increase its emissions budget and becoming a large-scale importer of international carbon credits. This would result in higher costs being passed onto households, and an outflow of capital overseas. We also risk becoming an importer of low carbon technology, funding overseas adaption, not our own. If business does not take responsibility for reducing their emissions through adaption or reduction, the cost of mitigation would again fall on households.

Estimates of the cost of failure to take action indicate this will place a significant cost on the New Zealand economy. The New Zealand Treasury (2016) *Statement on the Long-Term Fiscal Position* has estimated, based on our current trajectory, the costs of meeting our Paris commitment over 2021-2030 will be \$14 to \$37 billion. Infometrics, in analysis we commissioned, found that on current action there will be a deficit of 35.4Mt at 2030. This analysis estimated that the real national gross national disposable income (RGNDI) loss will be \$28.1 billion over the decade 2012-2030, and 38% of RGNDI will be required to purchase international units. We would be delighted to share this report on a confidential basis with the Commission, if it would be useful.

Why are we in this position?

We consider that we are in this position due to two main facts.

Firstly, transitional measures, such as 2 for 1 and free allocations, have been continued by successive Governments well in excess of the proposed timeline at inception of the ETS. This has meant polluters have continued to not pay the full cost of their pollution, nor have they been required to make investments to deliver reduction.

Secondly, carbon farming (permanent carbon forestry), the only sector that will deliver meaningful carbon mitigation action in the short term, is neither well understood nor encouraged. It is important to understand that this sector provides permanent carbon removal, and should be differentiated from rotational foresters that provide shorter term non-permanent mitigation. Carbon forests also provide significant biodiversity and environmental benefits - with the right techniques a professional carbon farmer can regenerate the land and restore the flora and fauna to native state.

Unless economy wide action is taken we are now at risk of burdening taxpayers and placing our international competitiveness at a disadvantage. New Zealand must catch up. The only way to do that quickly, as we will argue, is mitigation through planting permanent carbon forests. This will give the breathing room for sector specific targets, plans and budgets to be developed and implemented. Only then will we have bought enough time to address long-term, fundamental economic pathways to decarbonisation.

What is carbon farming?

Carbon farming (carbon forestry) is the activity of planting permanent carbon forests for the sole purpose of sequestering carbon.

References to forestry and carbon sequestration generally do not differentiate between rotational foresters and carbon farmers. However there are important differences between these two sectors. Carbon farming differs from rotational forestry in that the forests carbon farmers plant are permanent. That is, they are **never harvested**. The planting approach and techniques used are different. With rotational foresters planting is focused on achieving the greatest stocking rates, while carbon farmers plant to maximise carbon sequestration, regeneration and to support the environment.

The common consequence of the activity of both these sectors is that all trees remove and store carbon from the atmosphere. However when trees are harvested the carbon stored is released. Therefore for rotational foresters carbon sequestration is a by-product of the production of timber, and is only provided for the duration of the rotation, normally 28 years. For carbon farmers carbon is the primary product and removal is permanent.

Carbon sequestration in forests is a major mitigation measure to reduce emissions. Carbon farming offers greater long-term mitigation than harvest forestry given the trees are never cut down. Put simply a single hectare of carbon forest will return a far greater amount of stored carbon than a single hectare of harvest forest over the long-term.

Carbon farming is also easier to establish and maintain than a harvest forest. As a carbon forest does not need to be harvested it does not require the same degree of roading infrastructure as a harvest forest, and similarly it is not location sensitive. For this reason carbon forests are ideally suited to marginal, remote land.

Carbon forests offer a range of additional benefits,

- Their permanence means other activities can be integrated into the forest, ranging from manuka honey production through to mountainbiking.
- They are a permanent solution for stabilising erosion prone land.
- They enhance biodiversity.
- Over time if properly planned these forests revert to native state.
(Research organisations such as Scion and the School of Forestry have a body of evidence to support delivery of this reversion approach.)

Establishing a carbon forest is a first step towards re-creating a natural forest. People often mistakenly believe that any forest has a fixed lifespan with trees ultimately falling over. As long as there is a seed source then smaller trees will grow and propagate to fill any space created by the loss of larger trees thus perpetuating the forest.

New Zealand has a unique advantage as far as having an ideal environment for carbon forests. However to date we have not utilised this advantage. Rather, there has been little focus on the imperative of attracting permanent carbon foresters as immediate providers of a long term permanent mitigation solution. Planting infrastructure has been allowed to decline, grant schemes have been small in scale, and initiatives have favoured trials of techniques that will not deliver the efficiencies and scale of mitigation required.

So, what could be done immediately

Permanent carbon forest planting at scale should occur immediately on marginal lands with no other economic value (including erosion prone land). Government can take a leadership stance on this by opening up marginal Government lands for this type of activity through the calling for proposals from experienced carbon foresters.

General equilibrium modelling undertaken on our behalf by Infometrics has shown that for every 50,000 hectares of planting the following will be delivered:

- 1,000 new jobs in rural communities
- \$85 million in GDP benefits in 2030
- \$270 million in additional income to New Zealanders
- \$285 million savings per annum in international carbon credit purchases.
- Approximately 12% of New Zealand's 2030 Paris treaty target gap is met

A lack of clarity and inconsistency around eligibility criteria when registering forestry blocks in the ETS is another disincentive for permanent carbon forestry investors. This is due to the high level of risk due to eligibility outcome uncertainty. In addition, previous unexpected and punitive regulatory changes have adversely impacted this sector and eroded investment confidence. The best example of this is the unnotified 2013 budget changes, impacting only the forestry sector.

There are some simple and pragmatic measures that can be implemented quickly to provide greater certainty to carbon foresters. These must be put in place before any large scale planting commences to ensure the benefits of this are maximised.

Our vision for New Zealand

Our vision for New Zealand in a low-emissions environment is one of a prosperous economy, and vibrant society. In this world, success looks like the following

- New Zealand meets, as much as possible, its own contribution targets within its borders,
- Households do not carry an unfair burden,
- Polluters are held to account for their own pollution,
- Business proactively takes its own actions that move it to a low carbon model,
- There are sector targets and action plans that deliver reduction, adaption and mitigation relevant to each sector,
- The sector plans and reduction targets are at a minimum being achieved and in some cases are being exceeded,
- Mitigation and new low carbon technologies become trade opportunities,
- Our trading partners acknowledge our achievements,
- We are in position to offer further reduction commitments, in line with the reductions of other countries, when the Paris ratchet reviews occur, and
- There is policy stability and cross-party political agreement regarding the legislative and policy settings.

New Zealand Carbon Farming Group (NZCFG) is a proud New Zealand business that sees itself having a key role in transforming New Zealand to a low-emissions economy.

We are committed to planting a significant marginal land area in permanent carbon forest to provide immediate action towards a low-emissions transition. Over time these forests will revert to indigenous (native forest) and be available for the enjoyment of future generations.

How do we achieve this vision?

As noted New Zealand is at serious risk of failing to meet our 2030 target, requiring action to be taken as a matter of urgency. We see the following mix of options as being available,

Short-term	Long-Term
<ul style="list-style-type: none"> • Permanent carbon forestry planting on marginal lands • Adaption • International credit importation (as a last-resort measure) 	<ul style="list-style-type: none"> • Embedding of low carbon operations in Government, Local Government and Business • Permanent forestry carbon sinks • Carbon credit market top up

The removal of emissions at source (adaptation) is difficult and time consuming. It requires modifying existing processes and practices, as well as future investment. Asset replacement this can take years if replacement is done as part of normal replacement cycles. As can be seen by New Zealand's historic emissions profile it has yet to gain momentum on adaption based initiatives.

This suggests that mitigation is the only practical means of reducing New Zealand's net emissions in the short-term. Mitigation buys time to allow adaption to occur.

We believe a two pronged strategy is necessary

1. Urgent implementation of mitigation initiatives focused on enabling New Zealand to meet its 2030 target, and
2. Introducing long-run expectations around adaption and removal in the form of sector based targets and measures.

This strategy is action oriented, and needs to be underpinned by a robust and overarching plan which sets out sector based targets, measures and actions.

The most effective option for mitigation is afforestation. The afforestation action which yields the greatest offset is permanent carbon farming - the planting of permanent 'carbon forests'. What is more, if these forests are planted on marginal land (land that is uneconomic in its current purpose) then this activity is value accretive to the economy. It creates jobs (both from planting and from secondary activities), reduces costs of managing this land and mitigates the risk (and cost) of New Zealand failing to meet its Paris Treaty commitments.

The Commission's issues paper cites several sources, including the Vivid Economics report, which calls for large scale afforestation – over 1 million hectares. A number of independent reports have estimates of marginal land in New Zealand being well in excess of this. We have also investigated the land in New Zealand and are aware that there is a significant quantity of marginal land in New Zealand that would be suitable for this type of practice. All reports call for utilisation of these lands for forestry planting.

Mostly, these calls have been for traditional harvest forest planting to occur. This would however severely limit the amount of suitable land available as access would eventually be needed for forest removal. Therefore in our view, New Zealand would be better served if instead these forests were permanent 'carbon forests' planted on marginal land with no other economic value.

Key points of our submission

Our response to the specific questions posed in the Commission's issues paper is provided in the following section. There are a number of recurrent themes which are summarised here.

- There is an urgent need to take action if New Zealand is to meet its current emissions targets.
- A two pronged strategy is required where mitigation actions are prioritised in the short-term, allowing time for adaption and removal actions to come into force.
- The current priority must be on the development of an overarching plan setting out sector based expectations, targets and measures. This plan will be the primary means of shifting the focus from policy debate to focused action.
- The plan must have a long-term focus and needs to be supported by a move to separate it from political interference over this time. There are a range of possible mechanisms to achieve this. NZCFG does not have a preference, other than noting the need for action suggests taking the most pragmatic route.
- Further policy initiatives are not required at this time. The current position of uncertainty has been driven by incremental and reactive policy which has only served to erode investor confidence. The best way to restore confidence is for Government to announce an intention to make no further changes to core policy.
- New Zealand has a well-designed ETS which has suffered from numerous changes to policy settings. If these are reversed (as many are planned to be) then it will deliver afforestation and emissions reductions, as it did before operating under policy constraints.

Response to specific questions from the Issues Paper

The Issues Paper raises 40 questions in relation to the Productivity Commission's inquiry. NZCFG's response to these questions is provided below.

In many cases our response to questions references previous submissions and research. This information is available to the Commission should it require it.

We have responded in areas of direct relevance to our core business activity, and in areas where we have deemed our experience applicable. We have chosen not to answer all questions, though the general themes of our submission are valid across all areas of the inquiry. Where we have chosen not to answer a question this has been noted.

Q1 How can the Commission add the most value in this inquiry?

We see the Commission providing a clear, robust, and detailed evaluation of this issue.

This needs to start with an objective view of New Zealand's current state, and the underlying drivers that have contributed to this. It is clear that our current performance will see New Zealand miss its 2030 targets and beyond. It is also clear that our current performance in emissions reduction is lagging well behind our key trading partners.

We would like to see the Commission provide a set of targets to achieve our 2030 and 2050 targets and cascade these down to a sectoral based level to enable development of a set of recommended actions across all sectors.

We note the Commission's terms of reference is based around minimising the cost of transition to a low-emissions economy. We believe there are options that are actually value accretive to the overall economy. Given this, we would expect the Commission to place a higher weighting on these options in its analysis.

Finally, we believe it is important that the Commission develop a credible counterfactual to assess the risk of New Zealand continuing on its current path of emissions reduction. This risk should take into account the costs of not meeting our targets (and having to import overseas credits), as well as any consumer, market and trading partner backlash. In our view this cost far outweighs the potential cost to the economy of a smooth well-managed transition.

Q2 Chapter 3 of this paper mostly looks at ways to reduce emissions directly at their source. What other approaches would help identify opportunities to effectively reduce emissions?

There are two viable options for New Zealand to reduce its emissions; reduction/removal at source and mitigation. Both must be fostered if New Zealand is to meet its future emissions targets.

A two pronged strategy is required. Emission reduction or removal at source (adaptation) requires investment, changes to existing practices, and will take considerable time to implement. Even with a focused effort it may not be feasible to eliminate all emissions at source.

By contrast, mitigation can be implemented quickly and cost-effectively. The issues paper implies that emissions reduction comes with a cost. However some mitigation options are value adding to the economy and therefore it makes sense to prioritise them.

Mitigation is the first step to taking action and provides the bridge to enabling the low-emissions transition.

Q3 To what extent is it technically and economically feasible to reliably measure biological emissions at a farm level?

There has been a lot of focus on this area. We believe this has been due to agricultural emissions currently being outside the ETS, with debate around possible inclusion centring on the degree of difficulty of reducing ruminant emissions. This makes it hard to determine what (and how much) action to take.

This encapsulates the current issue facing New Zealand. The above focus is a distraction that defers much needed action. What is needed is a plan with specific targets and measures across all sectors.

This plan would take into account the two strategy approach detailed in the front of our response - a short-term strategy focused on mitigation options which are value adding to the economy, and a longer-term strategy focused on adaption (emissions removal at source).

Q4 What are the main opportunities and barriers to measuring emissions in agriculture?

Refer our answer to Q3

Q5 What are the issues for government to consider in encouraging alternative low-emissions land uses?

Government should ensure that land is being used for its best economic purpose or “highest and best use”. There are costs to converting and using land so it is important that government provide a stable policy framework over the long-term. For example, if emissions from agriculture were to be included in the ETS at some future point then, government must make this clear to enable the users of the land to adapt, or change, land use.

We believe a stable policy framework will allow the market to deliver land use change. Effecting land use change is not the role of government.

We see the government’s role as being limited to the provision of information to enable landowners to assess land use options, to provide incentives in limited situations, and to show leadership with its own land portfolio. Each of these is discussed below.

Our experience is that there are large areas of marginal land that is unproductive for its current purpose – this land is currently a cost to the landowner, but if it were to be planted in permanent forest it would provide economic benefit to the landowner. Government can take a role in highlighting this opportunity for landowners.

An example of an existing government incentive is the Erosion Control Funding Programme (ECFP) focused on addressing erosion prone land and the costs associated with this. Targeted incentives are a useful means of stimulating action.

The government owns, or controls over 10.4 million hectares of land in New Zealand. Even accepting that a large proportion of this is in other uses, there are still opportunities for the government to identify and convert marginal land. Our detailed assessment to sub block level across New Zealand has shown that there appears to be 2.89 million hectares of marginal land in the Government’s portfolio. As a significant landowner, government must demonstrate leadership and enable planting to commence on marginal lands within its portfolio.

Q6 What are the main barriers to sequestering carbon in forests in New Zealand?

The main barrier to afforestation is continual policy changes which have eroded confidence across the forestry sector. Forestry is a long time horizon industry and requires long-term policy stability to provide the confidence to support investment.

A secondary barrier to afforestation is MPI’s inconsistent treatment in the application of current guidelines pertaining to the treatment of forestry in the ETS. This manifests itself

in a number of ways, including the identification of suitable land of planting, and causes investment uncertainty for carbon forestry blocks.

NZCFG believe this barrier can be addressed quickly and pragmatically by adopting LUCAS data for this evaluation. LUCAS is currently the data source utilised by New Zealand to report its afforestation status internationally. Adopting this would merely align domestic recognition with New Zealand's international recognition. It would also mean that foresters would know in advance what land will be deemed eligible or ineligible. Doing so will have a clear and positive impact on afforestation and conversion of blocks from rotational to permanent carbon forestry sinks.

Q7 What policies, including adjustments to the New Zealand Emissions Trading Scheme, will encourage more sequestering of carbon in forests?

Other than the already announced changes to the ETS settings there is no need further changes to settings. As we have previously submitted the ETS has functioned effectively and driven afforestation when settings weren't diluted. The following comments are from our submission on the NZ ETS Review, 19 February 2016.

'During 2011 and 2012, New Zealand Carbon Farming Group planted 25% of the total new forests in New Zealand. This investment was enabled by a carbon price of \$20. Following the collapse of the carbon price in 2013, we had no choice but to suspend our planting programme. If the price again moved to an appropriate level and there was certainty in terms of current and future policy settings, we would recommence our planting program at large scale.'

'New Zealand Carbon Farming Group will be in a position to commence planting at a carbon price above \$18.50. At this level, as long as there is policy certainty in terms of allowing returns to remain at this level or higher without intervention, we commit to planting 20,000 hectares of new forests.'

Further (additional) policies are not required. What is required is a strong signal from government around stability of the ETS and settings. The forestry sector is currently suffering from a lack of confidence based upon the carbon price collapse in 2013 due to the opening up of the market to international credits. Future investment is unlikely until the sector is assured that policy will be stable over the long-term.

Furthermore, this is not the time to bring in measures or signals that do not incentivise the desired outcome being achieved, or accurately reflect the consequences of actions taken. To achieve our targets and ensure emission reductions are delivered effectively, permanently and efficiently there must be clear line of sight between actions and outcomes. All weakening measures and other distortions need to be removed.

New distorting measures such as averaging must not be put in place. Averaging effectively allows from the outset participating foresters to receive an estimated even return from their carbon assets. This in effect transfers the removal risk to the Crown and also, the Crown becomes a default financier for these investments.

We are aware that some foresters, particularly those in our sister sector of rotational forestry, favour averaging. This is no doubt due, at least in part, to this mechanism lowering the amount of investment capital required. However, this distorting mechanism neither provides an incentive to plant permanently nor does it provide an incentive to permanently plant a greater area. It is therefore not an incentive to encourage more sequestration of carbon forests. Averaging is simply an accounting measure of taking stock of carbon levels in forests.

As the largest carbon farmer in the ETS, we can assure the commission that averaging is not an underpinning requirement for carbon forestry investment. In fact, it would be a huge disincentive for large organisations such as ours, compared to the current FMA methodology that rewards the forester for their specific carbon removal yield.

While introducing averaging could provide an advantage on paper of a one-off gain in carbon sequestered, this is merely another example of trying to represent our current position in a better light by adjusting the rules, rather than taking effective action. What is required to encourage more sequestering of carbon in forests is settings certainty and rewards aligned to actual outcomes. This will deliver real action.

Q8 What are the main barriers to the uptake of electric vehicles in New Zealand?

We have no comment to make on this issue

Q9 What policies would best encourage the uptake of electric vehicles in New Zealand?

We have no comment to make on this issue

Q10 In addition to encouraging the use of electric vehicles, what are the main opportunities and barriers to reducing emissions in transport?

We have no comment to make on this issue

Q11 What are the main opportunities and barriers to reducing emissions from the use of fossil fuels to generate energy in manufacturing?

We have no comment to make on this issue

Q12 What changes will be required to New Zealand's regulatory, institutional and infrastructural arrangements for the electricity market, to facilitate greater reliance on renewable sources of energy across the economy?

We have no comment to make on this issue

Q13 What evidence is there on the possible physical effects of future climate change on sources of renewable energy in New Zealand, such as wind, solar and hydro power?

We have no comment to make on this issue

Q14 Apart from the regulation and operation of the electricity market, what are the main opportunities and barriers to reducing emissions in electricity generation?

We have no comment to make on this issue

Q15 What are the main opportunities and barriers to reducing emissions in industrial processes (such as the production of steel, aluminium and cement) and in product use (such as the use of hydrofluorocarbons in refrigeration and air conditioning equipment)?

We have no comment to make on this issue

Q16 What policies and initiatives would best promote the design and use of buildings that produce low greenhouse gas emissions?

We have no comment to make on this issue

Q17 What are the main opportunities and barriers to reducing emissions in waste?

We have no comment to make on this issue

Q18 Policies to lower emissions from particular sources, technologies and processes can have interactions with emission sources in other parts of the economy. What are the most important interactions to consider for a transition to a low emission economy?

This question is best answered through the development of a plan with specific targets and measures by sector. This will then provide a clearer picture of interactions and their relative importance.

Q19 What type of direct regulation would best help New Zealand transition to a low-emissions economy?

In our view no further regulation is required. New Zealand has a well-designed ETS which when left to function effectively has delivered emissions reductions/afforestation (further details can be found in our NZ ETS Review submission to the Ministry for the Environment, 19 February 2016.).

The development of a plan with specific targets and measures by sector will provide the certainty to ensure the ETS functions as designed.

Q20 Acknowledging the current review, what changes to the New Zealand Emissions Trading Scheme are needed if it is to play an important part of New Zealand's transition to a low-emissions future?

NZCF has been an active submitter on proposed changes to the ETS. These submissions have not been included in this response, but are available to the Commission should they require them.

The general theme of our submissions is that the continual intervention in the ETS has hampered its effectiveness. It is clear that when unencumbered of these constraints the ETS has functioned effectively – it has delivered afforestation, and has delivered reductions in emissions.

In terms of the current reviews we are pleased that many of our suggested changes, such as the removal of '2 for 1' and restrictions on access to international credits have been

accepted, and are being implemented. We remain concerned around how long the ongoing review process continues to take. This sends an inferred signal that further changes can be expected.

We are also concerned at the recent proposal from Motu Economics 'An Effective NZ ETS: Clear Price Signals to Guide Low-Emission Investment'. This proposal contained a number of suggested improvements to the ETS which perpetuate the cycle of adjustment and tinkering. Many of the suggestions would be better delivered through a plan with specific targets and measures by sector. The time has well passed to be altering policy. The framework is in place, the overall commitment has been made. Sectors, businesses and taxpayers need to be taking reduction; adaption or mitigation action now, as is happening now in overseas countries.

What is needed now above all else is certainty and long-term stability. Further review would not deliver this.

Q21 What type of market-based instruments would best help New Zealand transition to a low-emissions economy?

Refer our answer to Q19

Q22 What type of support for innovation and technology would best help New Zealand transition to a low-emissions economy?

Whilst there are a number of possible mechanisms, including greater support for business R&D or creation of an innovation fund, we believe it is premature to focus on this area. What is needed urgently is an overarching plan with sector based targets and measures. This will drive initiatives within each sector and in turn create opportunities for innovation and new technology solutions.

Q23 How can New Zealand harness the power of financial institutions to support a low-emissions economy?

The most important thing that New Zealand can do to attract funding is to provide a stable regulatory environment.

It is important to note that New Zealand is competing for funds with the rest of the world. The green investor market is significant – it has been estimated to be over \$3T.

Access to these funds is being sought globally as countries act to meet their Paris obligations.

New Zealand also needs to show it is open to alternative investment mechanisms, such as public private partnerships. A mechanism to demonstrate this openness is via pilot projects.

Q24 What type of alternative approaches (such as voluntary agreements or support for green infrastructure) would best help New Zealand transition to a low-emissions economy?

Whilst there are a number of possible mechanisms we believe it is premature to focus on this area as a first step. What is needed urgently is an overarching plan with sector based targets and measures. This will drive initiatives within each sector and in turn create opportunities for alternative approaches.

Q25 In addition to “core” climate policies and institutions, what other changes to policy settings or institutional frameworks are required to effectively transition New Zealand to a low-emissions economy?

We do not believe further changes are required at this point. Instead we see a need for sector based plans and independent measurement of progress against these plans.

In taking this approach it is important to create long-term stability. Q29 deals with this in more detail, but we think it is important to seek cross-party agreement around this to ensure that this long-term transition is not affected by short-term political cycles.

Q26 What are the main uncertainties affecting New Zealand businesses and households in considering investments relevant to a low-emissions future? What policies and institutions would provide greater confidence for investors?

Uncertainty has been driven by the almost continual regulatory change and weakening of policy settings. This has eroded investor confidence. It is a function of the change, not the underlying policy.

Restoring confidence can only be done by creating stability. To do this government must set appropriate long-term policy settings, and ensure mechanisms are in place to prevent future changes to these. These mechanisms must be transparent and visible to investors, businesses, and households to ensure success.

Q27 What approaches, such as regulatory frameworks or policy settings, would help embed wide support among New Zealanders for effective reduction of domestic greenhouse gas emissions?

We believe wide support for emissions reduction already exists amongst New Zealanders. One example is the Climate Change Declaration signed by 31 New Zealand Mayors in October 2015. This declaration shows Mayors' understanding that they must take a role in terms of adaption, sustainable community development, measurement, economic development, and energy. Many have followed this action up with plans, clear targets and deliverables. Worldwide we are seeing many similar type initiatives.

There are two actions that can help turn this support into action.

The first is greater stability. Changes, including the perceived threat of future changes, to policy settings have created uncertainty and a disincentive to invest.

The second is independent sector based targets and measurement of progress against these targets.

Q28 Is New Zealand's current statutory framework to deal with climate change adequate? What other types of legislation might be needed to effectively transition towards a low-emissions economy?

The current statutory framework is adequate, if it is allowed to function as designed. As we have submitted previously, we recommend that once all transitional measures are removed (as announced) that Government makes a commitment to leave the ETS structure alone. This action alone will provide the certainty required to enable adaptation and mitigation investment, resulting in New Zealand finally commencing on a path of action to deliver a low-emissions economy.

Long-term stability can only come if the current framework is safeguarded from future political intervention. Our view on this is detailed in the answer to Q29.

We note that further legislation may be required to enable specific sectoral initiatives, but this will only become clear once sector targets and plans are developed.

Q29 Does New Zealand need an independent body to oversee New Zealand's domestic and international climate change commitments? What overseas examples offer useful models for New Zealand to consider?

Transitioning to a low-emissions economy is an intergenerational effort which will span many decades. To provide long-term stability it is important to shield actions and initiatives from political interference arising from short-term political cycles.

There are a number of possible mechanisms to achieve this, including adopting the approach of the UK Committee on Climate Change. The underlying characteristics are more important than the actual mechanism chosen to be implemented. New Zealand needs to urgently drive action – in this context it should look to the most pragmatic means of achieving a solution.

There are two critical considerations.

The first is that there is cross party agreement to ensure any arrangement remains in place regardless of the make-up of government. We are encouraged by the collaborative cross-party effort made by GLOBE New Zealand and believe this indicates the current political environment would endorse such an approach.

The second is that there is sufficient independence in the body charged with measuring and monitoring progress against sectoral emissions reduction plans. This provides unbiased feedback on the effectiveness of sector based policies designed to supplement these plans.

Q30 How can adaptability best be incorporated into the system supporting New Zealand's low-emissions transition?

The long-term nature of the transition to a low-emissions economy means there are risks that some investments may be inefficient and stranded by future technological improvements. The counter argument applies equally in that investments are being made today without long-term guidance around a future carbon price.

The best means of ensuring adaptability (in the context of this question) is to set out a long-term plan with clear targets by sectors. This provides the greatest incentive to seek the best solutions. In this scenario the ETS functions as the central mechanism to re-allocate gains amongst sectors, including mitigation efforts.

This unconstrained market-based approach is in stark contrast to the example provided in the issues paper. The Motu example is a continuation of the trend of hampering the effectiveness of the ETS through further changes to settings.

Q31 What types of analysis and underlying data would add the greatest value to this inquiry?

It is important that the inquiry is well supported by robust analysis.

NZCF is a strongly fact based research driven organisation. We work at the apex between the emitter and forestry sectors and account for the largest volume of NZU's traded in the ETS. We have data and analysis covering forestry sequestration, the domestic market and international markets. We are happy to provide the Commission with access to this data and any past research to aid it in its inquiry.

Q32 What should be the mix, and relative importance of, different policy approaches (such as emissions pricing, R&D support, or direct regulation) in order to transition to a low-emissions economy?

New Zealand's primary policy instrument is the ETS and it must be allowed to function as intended.

What is needed urgently is an overarching plan with sector based targets and measures. This will drive sector action. The role of future policy is to respond to specific sector issues which are inhibiting action. However this must only occur in a manner which does not destabilise the wider strategy.

Q33 What are the main co-benefits of policies to support a low-emissions transition in New Zealand? How should they be valued and incorporated into decision making?

The low-emissions transition is being measured in terms of economic benefit/cost. We believe it is important to also measure social and environmental benefit. For clarity, we believe these measures need to be applied to initiatives arising from the sector based action plans. Applying these at a policy level would in our view only delay action.

Our reasoning for applying a broader measurement of benefits is to ensure initiatives that deliver a wider spectrum of benefits are encouraged. We believe this reflects current investor trends in carbon markets.

We acknowledge that the measurement of co-benefits can be difficult. It is important to clearly define how these benefits should be assessed upfront.

We believe that social benefits should be evaluated based upon the improvement in community well-being to the communities and regions where initiatives are being actioned.

Similarly we believe environmental benefits need to be based upon incremental improvements in the local environment, e.g. biodiversity benefits, created as the result of initiatives. This avoids the need to evaluate gains against wider expected environmental benefits such as reduced sea levels – these benefits are implicit and included in our commitment to the Paris Treaty.

Q34 Who are the most important players in driving forward New Zealand’s transition to a low-emissions economy?

All parties – government, businesses, investors and the public have a part to play in New Zealand’s transition to a low-emissions economy. The most important party in the short-term is government.

We see government’s role as being the following,

- to set a stable unchanged regulatory environment providing all parties with the confidence to make long-term plans,
- to signal an immediate call to action

Q35 What measures should exist (and at what scale and duration) to support businesses and households who have limited ability to avoid serious losses as a result of New Zealand’s transition to a low-emissions economy?

Previously the government has sought to provide measures to alleviate the impact to emitters with mechanisms such as the two for one. As we have previously submitted the impact of this has been to disincentivise emissions reduction. As New Zealand is now in a position where it needs to urgently take action, the use of such measures must be carefully considered, and only used as a last resort.

As we have previously submitted based on research we have conducted the cost to households is relatively minor in the short-term, and in some cases the benefits from mitigation actions to regional communities may outweigh any cost to these communities from increased costs to emitters.

Q36 What are the essential components of an effective emissions-mitigation strategy for New Zealand that will also be economically and politically sustainable?

An effective emissions mitigation strategy for New Zealand must be;

- **action oriented.** It must provide sufficient targets and measures for sectors to enable them to progress emissions reductions in their sector.
- **stable.** It must be built upon a commitment to maintain a stable long-term regulatory environment to ensure confidence to invest.
- **pragmatic.** New Zealand has a well-designed ETS as its main policy instrument. This should be enabled to function as intended.
- **independent.** Measurement should be done in such a way as to ensure objective feedback on progress that is not subject to political interference.

Q37 Should New Zealand adopt the two baskets approach? If so, how should it influence New Zealand's emissions reductions policies and long-term vision for the future?

What is needed most urgently is an overarching plan with sector based targets and measures to drive action. We would not want debate around the two baskets approach to impede this.

However we do note that the two pronged strategy outlined in this submission is naturally aligned to a two baskets approach. A short-term focus on mitigation to offset carbon emissions buys time to tackle the more difficult task of adaptation. The nature of New Zealand's emission profile means that agriculture makes up the majority of emissions requiring an adaptation driven approach.

Q38 How should the issue of emissions leakage influence New Zealand's strategy in transitioning to a low emissions economy?

It is important that emissions leakage in New Zealand should not be overly elevated so as to distract us from our broader objective. Our immediate challenge is to start to reduce emissions and set New Zealand on a path to meeting its future commitments.

Emissions leakage should be considered as part of New Zealand's plan to meet its 2030 targets and beyond. However it must also be considered within a global context – almost every country has committed to the Paris Treaty creating obligations on each to make

progress to decarbonising their respective economies. This 'separate but together' approach will solve issues of emissions leakage without having to devote additional attention to it.

Q39 What do you see as the main benefits and opportunities to New Zealand from a transition to a low emissions economy?

New Zealand's emission profile is continuing to grow and we are at serious risk of missing our 2030 targets and beyond. By itself this is serious, but it becomes more critical when compared to the performance of our major trading partners, all of whom are making significant progress towards decarbonising their economies.

Our risk is twofold – we face increased costs from not meeting our obligations and we face the real potential of a consumer driven trade backlash.

Our opportunity is simply the mitigation of this real and increasing risk.

Q40 What does your vision for a low emissions economy look like? Could a shared vision for New Zealand be created, and if so, how?

Our vision for a low-emissions economy is set out at the front of this response. Whilst it is important to have a collective vision, it is equally important to have a clear plan with targets, actions and independent measurement of progress.

If New Zealand is to respond to the challenge of decarbonising its economy and meets its 2030 targets and beyond it must take action now.