

19 February 2016

NZ ETS Review Consultation  
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## **New Zealand Emissions Trading Scheme Review 2015/16**

BusinessNZ is pleased to have the opportunity to provide a submission to the Ministry for the Environment on its discussion document entitled 'New Zealand Emissions Trading Scheme: Review 2015/16', dated 24 November 2015.<sup>1</sup>

### **Introduction**

BusinessNZ welcomes the Government discussion document outlining its proposed priorities and other issues related to the New Zealand Emissions Trading Scheme (the 'NZETS', or 'the scheme'). Changes are needed to the scheme to reflect developments in the international climate change negotiations.

With a view to having a strategically-focused base of information from which to have a deeper dialogue with business and for business to make more informed decisions to invest and create jobs, the discussion document:

- a) provided an opportunity to stand back, look at the overall suite of New Zealand's climate change policy responses, and determine what role the NZETS would play in that context; and
- b) allowed for a richer, informed dialogue about the strategic expectations of the NZETS relative to the range of other policies that will also contribute toward the goals (being New Zealand's emission reduction target and the transition to a low greenhouse gas economy) and the changes required to calibrate the NZETS settings to deliver on those expectations.

While the discussion document provided glimpses of this potential, it largely provides a tactical focus on a limited range of specific features whose

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<sup>1</sup> Background information on BusinessNZ is attached in Appendix One.

underlying rationale simply seems to be to ensure the domestic carbon price rises. This it will undoubtedly do. But reducing a market to its outcomes, in particular to price and cost alone (and on top of that, as something that can be managed by the government) almost always leads to policy-failure.

We appreciate officials' thoughtful consideration of the pros and cons of its potential proposals, but for something as fundamental as the NZETS, tactical changes risk becoming ad hoc. What was required was a demonstration of a clear policy line of sight between any anticipated increase in carbon price, the desired domestic transition to a low carbon economy (both its nature and how it might be achieved) and the impact on the international competitiveness of the export sector. Also needed was information of a more strategic nature about where the Government wishes to take the overall design of the NZETS in the longer term.

Opportunistic design changes aimed at delivering short-term price-focused outcomes will create uncertainty, especially for the export sector at a time of substantial on-going global economic fragility and end consumers, both of whom the transitional features were designed to protect. More worryingly, it risks causing businesses to lose confidence in a market whose design settings will become subject to the vagaries of political whims and/or guesswork about future international progress and therefore unpredictable.

Collectively, these information deficits create misgivings about the efficacy of any decisions that might be considered for the NZETS in the context of the priority issues. We suggest that the Government in consultation with business give more careful consideration to the overall mix of climate change related policies, the role of the NZETS including its desirable long-term design features, and its ability to deliver on the objectives expected of it. This conversation is already underway but is embryonic. Only a deeper conversation will fully unlock the resources and technology that resides in the business sector and that will be required to catalyse even greater ambition.

## **Summary of Recommendations**

BusinessNZ recommends that the Government:

- a) establish a cross-portfolio Ministerial Climate Change Group to improve at a leadership level the collaboration and co-ordination across Government. This group to be supported by senior officials;
- b) use this group to carefully consider a holistic way the relative roles and contributions of non-NZETS measures (such as energy efficiency, public transport, electric vehicles, research and development, etcetera) in New Zealand's efforts to meet our international obligations and to position the New Zealand economy to transition to a low greenhouse gas economy. The groups should consult with business when formulating its views;

- c) commence a dialogue with business and other stakeholders on the appropriate long term design of the NZETS, in order to ensure strategic alignment of any specific changes to it;
- d) urgently complete work on an auctioning mechanism, and once implemented recycle any revenue received into the encouragement of low carbon initiatives;
- e) remove the 1:2 surrender obligation in a manner co-ordinated with the achievement of the *earlier* of:
  - the development of the auctioning mechanism and the re-establishment of access to international units of an acceptably high quality; or
  - the attainment of some suitable metrics based around the extent of global emissions covered by a carbon pricing in other jurisdictions (at an economy and sectoral level) and comparable effort, in terms of GDP per capita or some other appropriate metric (as opposed to arbitrary time triggers)

in order to ensure that the economic and competitive burden faced by New Zealand businesses matches that of other jurisdictions; and

- f) announce *now* that when access to international markets are eventually re-established that a limit – qualitative and/or quantitative (to be defined in conjunction with business and other stakeholders) will be placed on their use.

### **Setting the Scene: The Basis for Action**

Before getting into the substance of the submission, it is worthwhile first reflecting on the broad agreement to the fact that there is a public policy rationale to take action to address the risks of climate change. That is, there is a problem to be addressed. BusinessNZ agrees that New Zealand needs to be seen internationally to take some action to meet its international commitments, as well as for 'brand' and trade reasons, and to a lesser extent, to give it credibility in international negotiations. BusinessNZ also considers that it is important to have a range of policy mechanisms that addresses the 'right' problems and suits the economic circumstances of New Zealand and New Zealand businesses.

These cornerstone propositions have given direction to BusinessNZ advocacy, and led it to conclude, some time ago, that an emissions trading scheme is likely to be the best long-term policy instrument. But BusinessNZ considers that the NZETS will only be the best domestic policy solution *if* there are multiple jurisdictions pricing carbon into their export sectors and a deep and liquid global carbon market evolves.

The fact that New Zealand has an operational scheme has provided its businesses and consumers some clarity about its immediate effects. But

continued careful judgement is required about where the costs and benefits of the scheme will fall and what their impact will be. For some businesses, new market opportunities have emerged or beckon. However, for most businesses, concerns remain about the impact of climate change policies on their incentives to invest and grow and the opportunities foregone.

### **The Context for the Review**

Since the passage of the ETS into law in 2008 things have changed substantially. For example:

- a) at the time of passage into law, there was substantial optimism that the world was moving rapidly into a global trading-based arrangement. This optimism continued to be felt by policy makers even after a change of government in 2008, the global financial crisis and in the immediate run-up to the Copenhagen CoP at the end of 2009;
- b) a corollary to this over-optimism was the expectation that the trading regime would be the primary (if not the sole) policy tool by which New Zealand would meet its economy wide target; and
- c) the expectation was that there would be a smooth transition into a Kyoto second commitment period and that a Kyoto-lookalike arrangement would eventually be negotiated.

But reality has proven to be somewhat different. Optimism about the speed with which the world will move to a globally linked trading scheme has proven to be misplaced. This is related to the fact that reality is much more uncertain and complex than previously expected, and the growing recognition of national circumstances (including both the challenges arising from them and the opportunities they give rise to) has resulted in an increasing realisation that there is more than one way to skin the emissions reduction cat than a single economy-wide target and price.

For business, the origins of this realisation does not lie in pursuit of emission reduction *per se*, but rather a broader emphasis on sustainability as reflected for example in the planetary boundaries work of the Stockholm Institute, and in resource use efficiency, natural capital assessment, etcetera and the increasing acceptance by mainstream business of the growing constraints and the need to change and adapt business behaviour as a result, while remaining internationally competitive. This broader framing makes a sole focus on carbon pricing no longer appropriate. Indeed such a single focus serves as a polarising distraction to a richer, more mature and bespoke business dialogue about long term business resilience, and the mitigation of and adaptation to environmental and climate risks across a wide range of policy and business measures.

## Starting at the Start – A Tactical Focus Raises Issues

Before getting into the detail of the options to change the NZETS, it is important to first put the NZETS into a broader strategic context. In light of this, the discussion document starts with a misconception:

“The New Zealand Emissions Trading Scheme (NZ ETS) is the Government’s principal policy response to climate change.”<sup>2</sup>

The NZETS is undoubtedly an important policy tool, but there are two conditions necessary for it to be *the* principal tool, being:

- a) the likelihood that the use of trading by other countries is widespread; and
- b) there is ready access to international offset units.

Put another way, there needs to be at least the prospect of the development of a deep and liquid international carbon market via which the least-cost, efficient price of abatement to be found. This, in turn, allows domestic firms to make efficient decisions in confidence, to either emit and buy (regardless of source of the unit), or abate. It is also the only way to calibrate economic efforts across borders. Without the prospect of the development of such a market, the cost of a trading scheme is likely to outweigh the benefit.

Neither of the two above conditions exist, and may not do so for some years yet. The NZETS is currently a purely domestic-facing scheme whose units are now solely domestically originated and sourced. It is now only a highly illiquid domestic policy mechanism with trading attributes for which any prospect of discovering an efficient least cost price based on underlying economic fundamentals will be a pretence.

The inability to rely upon it in its current domestic-facing form to signal an efficient least cost price of carbon on which business can reliably act means that Government can no longer rely upon it without serious and careful scheme redesign.

Making tactical, opportunistic design changes in this context carries significant risk, not least because of the significant uncertainty that exists around the implications on the overall demand and supply of domestic units, acting out of step with our trade competitors, and risking our international competitiveness.

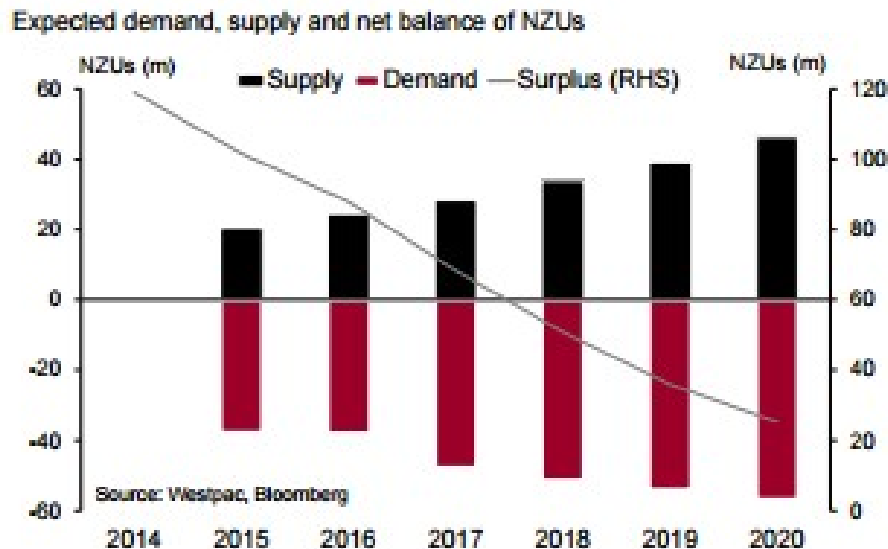
### The Demand-Supply Balance will Dictate Price

Depending on your assumptions (such as the rate of exit from the scheme by small forest holders, the willingness of foresters to release units now that are currently being held to cover future liabilities, economic growth, access to international units) the current surplus could erode extremely quickly.

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<sup>2</sup> Ministry for the Environment discussion document entitled ‘New Zealand Emissions Trading Scheme: Review 2015/16’, dated 24 November 2015’, page 3, section 1.1

Westpac, building on work previously undertaken by Bloomberg, has estimated that the surplus could erode dramatically. This is shown below, and would likely have the effect of placing significant upward pressure on price.



Source: Westpac Institutional Bank, 'The Paris Agreement: What it means for the New Zealand economy', dated 4 February 2016, page 8

In the absence of a better understanding of the likely implications of the proposed changes on the balance of demand and supply it is extremely difficult to understand their implications for the carbon price or its impact on the productive sector.

However, one thing is clear. According to the recently released NZIER analysis<sup>3</sup>, the impact of any increase in carbon prices is regressive – that is, those on lower incomes are likely to bear proportionately more of the costs. The rural regions will be similarly affected, at a time when the government is working hard to ensure that regional New Zealand shares in the dividends of a growing economy. This impact is due to the negative impact of the proposed changes on the primary produce sector (food processing, horticulture and aquaculture).

### The Timing of Action is Critical

Given the complexity of the international dimension to setting domestic climate change policy, the timing of policy changes needed to enhance the impact of the suite of policy measures including those of the NZETS is critical.

The risks associated with moving ahead of our trade competitors in the absence of access to international units was identified in an earlier Landcare Research report completed in the context of the recent emission reduction target setting exercise. In this report it evaluated the effect of a scenario if

<sup>3</sup> NZIER report to Ministry for the Environment entitled 'Economic impacts of removing NZ ETS transitional measures A Computable General Equilibrium analysis', dated December 2015, pages ii and iii.

New Zealand faced a unilateral climate policy and could not purchase international offsets. This is the situation New Zealand now faces. In this scenario Infometrics did not model an explicit emissions reduction target, but rather assessed the level of domestic emissions reductions that could be achieved if New Zealand faced a carbon price of \$300/tCO<sub>2</sub>-e over the entire commitment period while the rest of the world continued to face the global carbon price that reached \$50/tCO<sub>2</sub>-e by 2030.

The modelling results are extremely informative:

“New Zealand’s carbon price would have to be at least \$300/tCO<sub>2</sub>-e in order for the country to be close to achieving a target of 10% below 1990 emissions reduction without having to purchase international offsets (and without pricing agriculture or forestry emissions). This unilateral approach would result in a -2.25% reduction in RGNDI and a 2.1% reduction in RGDP, while reducing gross GHG emissions by almost 30% relative to the baseline (i.e. about 7% below 1990 emissions). *This approach has large consequences for New Zealand’s balance of trade, as the relatively high domestic carbon price reduces the country’s competitiveness and firms and consumers purchase more goods from overseas.* The key sectors impacted by the high price are primary energy, energy-intensive manufacturing, and transport, while food and wood product manufacturing and services are relatively unaffected.”<sup>4</sup>

(emphasis added)

The just released NZIER report also notes:

“ ..... if the removal of a transition measure in New Zealand is associated with, or is a reaction to, our international partners imposing more stringent climate change policies, the relative costs of removing the transition measures would fall. Our previous modelling (NZIER and Infometrics 2009) found that *equivalent rest-of-the-world action can approximately halve domestic costs relative to unilateral action.*”<sup>5</sup>

(emphasis added)

### Maintaining the International Competitiveness of our Export Businesses

The NZIER report, along with countless such General Computable Equilibrium (GCE) models done by many others over numerous years continue to show that the macro-economic impact of changes to the NZETS is minimal.

Putting aside for the moment the concerns raised above with the tactical nature of the changes put forward, such modelling has a number of limitations

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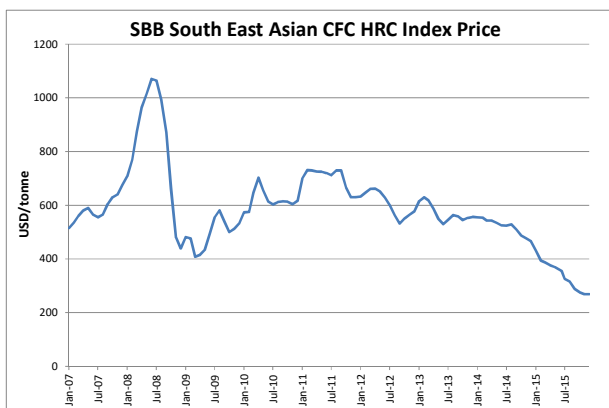
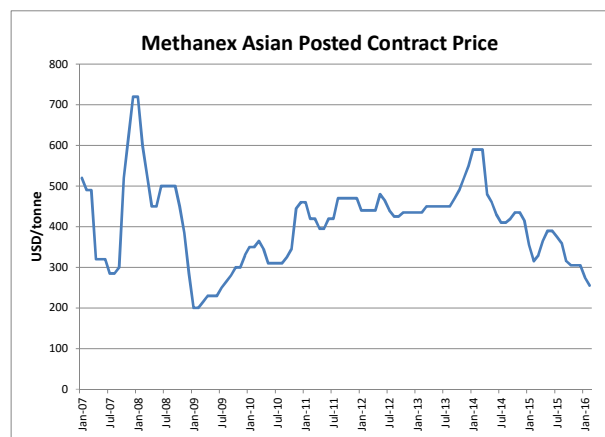
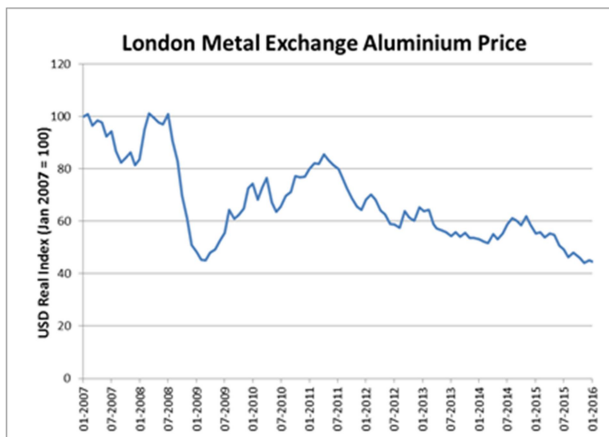
<sup>4</sup> Landcare Research report for the Ministry for Primary Industries & Ministry for the Environment entitled ‘Modelling the economic impact of New Zealand’s post-2020 climate change contribution’, dated May 2015, page 31.

<sup>5</sup> NZIER report, *op cit*, section 5.6, page 14.

(freely acknowledged by NZIER<sup>6</sup>). Most notable, however, amongst these limitations is that they generally assume smooth adjustment to economic shocks. Hence, even if CGE model results provide a reasonable representation of where the economy would settle after it has gone through a full adjustment, they provide no useful information on how the transition would unfold. If the economic history of New Zealand teaches us anything it is that transition paths matter in the size, distribution and duration of costs.

Given the make-up of New Zealand's industrial sector (regional, often one-off, and large – for example, the smelter, methanol plant or steel mill), the impact of getting this wrong in terms of jobs and investment is - at a time of historically soft global commodity prices, and substantial and growing regional economic fragility - likely to be large and dramatic.

This can be seen dramatically in the following sample of key global commodity price graphs.



In this context it is important to remember that it is the global economy not the state of the domestic economy that matters for these export businesses (though of course, there are important knock-on ramifications for the domestic economy of such low commodity prices). It is also worthwhile noting that the 1:2 surrender obligation was introduced to maintain the international

<sup>6</sup> For example, NZIER highlights the limitations of the modelling approach in Appendix C, noting that the base case model is a snapshot of the economy as it existed in 2003. With the significant changes in the electricity generation mix since that date, in particular the increase in geothermal generation and back off of Huntly the electricity emission reduction may be overstated.



competitiveness of our export sector, and then retained at commodity price levels generally higher than they are today.

### **Assessing the NZETS Alongside Other Domestic Policy Settings**

The above has important policy implications. It both reinforces the magnitude of the challenge facing New Zealand, and the need to be cautious when resetting policy.

It also reinforces the contention that the NZETS must now in its current form - in the absence of substantive design changes - be seen as only one of a number of domestic policy tools. The inability to rely upon the price signal of a scheme amended to reflect the tactical removal of the 1:2 surrender obligation means that until this work is done, other options should be relied upon in preference to tactical and opportunistic (and potentially economically damaging) changes.

Such options are alluded to in section 4.6 of the discussion document. These are:

- a) energy efficiency
- b) renewable energy
- c) public transport
- d) electric vehicles
- e) science and research

Each of these (and others such as waste gases and fuels, and non-NZETS forestry schemes) has a role to play in assisting New Zealand to meet its international obligations and to transition to a low greenhouse gas economy. For example, urban intensification and a more rapid switch public transport. In recent years, New Zealand's major cities have seen a significant increase in public transport use. Such trends are underpinned by the rise of the 'millennials' with lower car ownership rates. Similarly other behavioural trends, facilitated by technology, are also reducing the need for travel in New Zealand. Online shopping, home delivery of groceries, and the use of the internet for services that used to require a visit to the city centre, all mean less driving and fewer emissions.

Yet despite this, the discussion document contains no information about how officials expect these changing consumer behaviours and other policies to interact, or estimates of their anticipated relative contributions towards the desired goals. Without this information it is extremely difficult to determine (let alone assess) what role the NZETS will play in this mix and in turn, what the nature of the changes need to be to ensure that the NZETS is to play its designated role.

For example, is the NZETS to become a carbon-only trading scheme, and if so, how much of the international emission reduction target is it expected to contribute relative to the other policies and approaches? This may, or may not be appropriate given the range of other initiatives and actions being undertaken by other mechanisms and sectors. The answers will influence the nature of the design changes eventually required. Simply pushing ahead with tactical changes in the absence of this information will create an unacceptably high risk of economic regret.

### **Continuing to Peel the NZETS Policy Onion**

Until this is understood, it is extremely difficult to say that the options put forward in the discussion document are appropriate, or not. They may well be. But there is another layer to be considered before this can be determined with any confidence – having defined the relative contribution of the NZETS, will any proposed changes actually deliver on the objectives sought – being assisting New Zealand to meet its international obligations and to transition to a low greenhouse gas economy?

#### Are NZETS Design Changes Required for the Emission Reduction Target?

It has already been announced that New Zealand will meet its 2020 emission reduction target. This suggests that no changes are required before 2020 to enable that. This is supported by NZIER who states:

“Because New Zealand will likely reach its 2020 target without additional emissions reductions, there will be no short term extra financial benefit from greater emissions reductions that accrue with industry facing a higher cost of emissions.”<sup>7</sup>

It is too difficult to know – given the large number of imponderables from the international negotiations – if this is the case through to 2030. But the mere fact of these imponderables also suggests that taking action for this reason now would be premature.

#### Will the Options put Forward Deliver the Economic Transition Sought?

What of the goal to transition to a low greenhouse gas economy? We can (and do) of course expect the NZETS to contribute to this transition. However, the nature of the transition is important – in particular whether the transition sought is to net or gross emissions and over what timeframe. The former implies the continuation of the approach of being ‘responsible’ for our emissions with the possibility that gross emissions can continue to grow. The latter implies an actual reduction over some time period of gross emissions.

The former can be achieved by the removal of the 1:2 surrender obligation and this is supported by the recently released report by Professor Bruce Manley from the NZ School of Forestry, University of Canterbury entitled

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<sup>7</sup> NZIER report, *op cit*, page 9.

‘Afforestation responses to carbon price changes and market certainties’. This report somewhat unsurprisingly says:

“Removing these factors [the 1:2 surrender obligation, the free allocation and the \$25 price cap] would be viewed positively by the forestry sector and lead to greater afforestation.”<sup>8</sup>

However, doing so would be accompanied by the risks alluded to above, especially in light of an absence of alternate sources of unit supply. It is also possible that the removal of these features will contribute to a shift in gross emissions, but it is just as possible that this shift in gross emissions would originate from carbon leakage.<sup>9</sup>

Yet a carefully managed gross transition would appear to be more consistent with the overall intent and direction of the Paris Agreement struck at COP21 last December which signals a strong international will to tackle rising global temperatures. However, this is of course, far more difficult to effect especially given New Zealand’s unique emissions profile and high marginal cost of abatement.

But once again, no regard is given to these factors in the discussion document. The presumption appears to be that the key measure of the scheme’s effectiveness is price, and that increasing the price will be sufficient to effect a transition of some undefined description.

### The Practical Reality – Reductions in Gross Emissions are Likely to be Difficult and Expensive

However, we need to be especially cognisant of where a reduction in gross emissions might originate. This issue speaks to our unique country emissions profile, our strong population growth, our relatively strong economic growth, our reliance on imported technology solutions and high proportion of renewable electricity generation (~ 80%).

It is widely accepted that the impact of the NZETS in terms of costs and emissions is dependent on the following key factors:

- a) the ease with which firms can substitute away from emission-intensive activities;
- b) the availability and cost of abatement technology; and

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<sup>8</sup> Report to the Ministry of Primary Industries by Professor Bruce Manley, The NZ School of Forestry, University of Canterbury entitled ‘Afforestation responses to carbon price changes and market certainties’, dated January 2016, page 2.

<sup>9</sup> It is worthwhile noting that the phrase “carbon leakage” in its narrow sense is a misleading concept, and needs to be adjusted to the reality of today’s economics. In its most common usage, carbon leakage is understood as production relocation due to the NZETS. The relocation focus is however misaligned with the reality. For business, closure and plant relocation are *always* the last step of an investment decision. Before businesses decide to relocate, they decide to decrease capital expenditure, meaning that carbon leakage starts when investment stops. In this context, carbon cost differences have a high influence on investment decisions particularly in the energy-intensive sectors.

c) action by the rest of the world to price carbon in a transparent way.

Substantial reductions in gross emissions – at least in the short to medium term – seem unlikely in the absence of the substantial adoption of new technology. For example, in a 2011 report, the then Ministry of Economic Development noted that:

“A \$100 per tonne emissions price increases the petrol price by a further 20 cents per litre, which results in only a 0.8% fall in petrol transport demand relative to the Reference Scenario”<sup>10</sup>

In terms of emissions, these were forecast to increase overall from 2010, even with a carbon price of \$100/t CO<sub>2</sub>-e and relative to the reference scenario in 2030, were forecast to fall by only 0.01%.

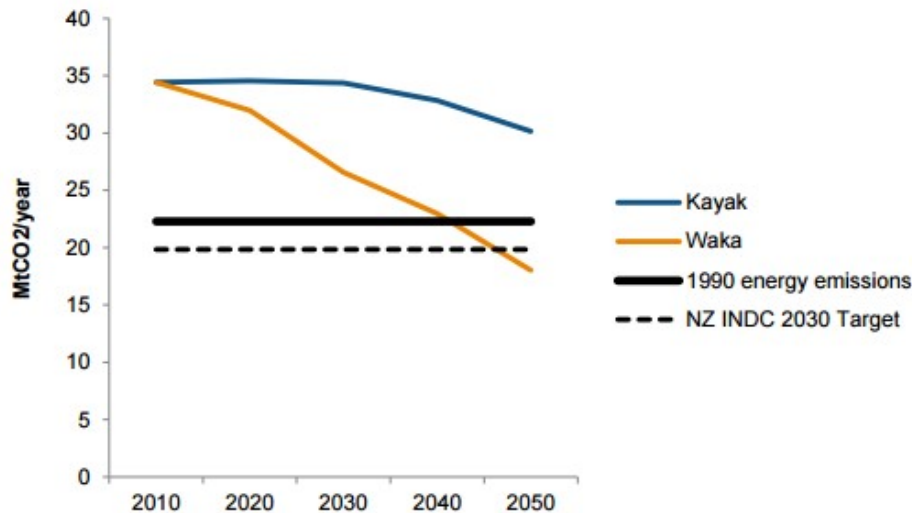
This analysis, while now slightly outdated, is not only reinforced by the recent Infometrics report, but is also implied by the NZIER report (table 6 on page 10 shows that not only is the level of emissions change is extremely small for the reduction in real GDP, but that the implied dollar cost per avoided tonne of carbon for every dollar of reduced GDP is very high).

This is also consistent with the more recent modelling undertaken by the BusinessNZ Energy Council (BEC). This modelling, released in October 2015, shows that in a market-led world ('Kayak') with a carbon price of \$60/t CO<sub>2</sub>-e gross energy emissions fall modestly through to 2050, while in a world in which consumers and businesses seek greater government involvement in the economy ('Waka'), gross emissions fall more dramatically but this is predominantly due to a substantially higher carbon price (\$115/t CO<sub>2</sub>-e), combined with a clutch of plausible but generally unfavourable assumptions around suppressed demand, lower economic growth, and the aggressive conversion of 50% of the private vehicle fleet to electricity due to more reducing technology costs.

Even then gross emissions do not fall to below the energy sector's share of the national emission reduction target, achieving this around 2050. This trend between the two scenarios in energy related gross carbon emissions is outlined in Figure 44 – Total Energy Related Carbon Emissions to 2050 from the BEC report, below.

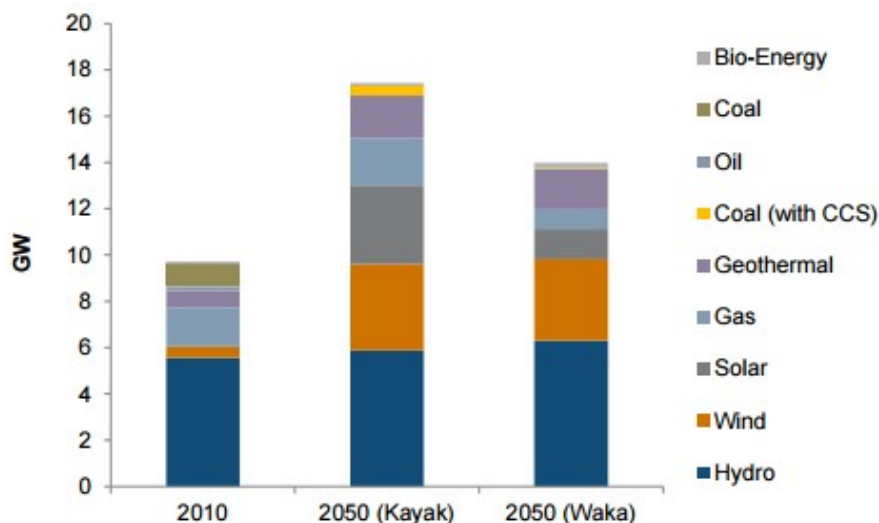
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<sup>10</sup> Ministry of Economic Development (now, Ministry of Business, Innovation and Employment), New Zealand's Energy Outlook 2011, Reference Scenario and Sensitivity Analysis, page 11. The reference scenario is \$25/t CO<sub>2</sub>-e.



Source: BEC2050 New Zealand Energy Scenarios Navigating energy futures to 2050, dated November 2015, page 88

Similarly, increasing the proportion of renewable electricity even with a high carbon price is difficult. Figure 38 from the BEC report shows Installed Generation Capacity (2010 versus Kayak and Waka 2050). This has both scenarios increasing their proportion of renewable generation from current levels of around 80%, in Kayak to 85% in 2050, in Waka to 98% in 2050. In Waka, a higher carbon price has limited impact as renewable geothermal, wind, hydro and solar are already sufficient to manage the lower economic and demand growth paths of that scenario.



Source: BEC2050 New Zealand Energy Scenarios Navigating energy futures to 2050, dated November 2015, page 82

However, reaching such high levels of renewable electricity has significant security and cost implications. In order to adequately manage this risk, in Waka, the model preserved a significant amount of flexible gas capacity (1.1GW of natural gas plus 0.2GW, of bioenergy IGCC) which, in the “average” hydrological year, is only required to generate 1.8TWh, a load factor

of less than 20%. This does not consider the commercial implications of maintaining 1.1GW of gas plant with low load factors, and the flexible fuel contracts required to provide sufficient security. It is unlikely that this can be achieved within current market design. Consistent with the Waka storyline, BEC assumed that a policy measure would be required to underwrite such contracts, and/or a move to a form of capacity market, in order to make this commercially feasible, as well as a more formal approach to rewarding demand-side response by industrial consumers.

With respect to New Zealand's industrial emissions, these are extremely low relative to our developed country peers at around 6% of total emissions in 2013. There is no evidence to suggest that this sector operates at a higher level of carbon intensity than its international peers. Both of these factors suggest that in the absence of technological advancements, limited commercially viable emission reductions are available. It is, therefore, a reasonable working assumption to assume that most profitable energy and emissions reducing technology options have been adopted. It is therefore also likely that trade-exposed businesses would be forced to address the long-term effects of a more stringent NZETS on their profitability by reducing output and ultimately the number of people they employ. This would be undesirable.

As a technology-taker across the economy, much of the technology required to effect a reduction in gross emissions is likely to be developed in other countries. This suggests that a high carbon price in New Zealand is likely to have little or no impact on bringing this technology forward faster.

In light of these factors, we must be cautious of making tactical changes to the NZETS aimed at achieving a reduction in gross emissions, given the substantial uncertainty of achieving such reductions, especially if the impact of those changes result in substantial (\$100/t +) domestic carbon prices.

### **An Ideal ETS Design**

Only once government has determined the role for the NZETS relative to other policy mechanisms, and the nature of the transition sought from it, can we finally start to consider the redesign of the NZETS to achieve what is sought from it by policy makers.

But there is one further analytical step required before determining what those design changes might be. This is of being able to assess whether the specific design changes are consistent with a broader, strategic view of a desired design end point. In other words, how do we know that the changes we make to the scheme today are heading in a direction consistent with a desirable end-state?

The proposals set out in the discussion document suffer in this regard. There is no sense that they are consistent with a desirable end-state, rather they seem motivated by misplaced concerns about the observed price of carbon.

The information set out above demonstrates the pitfalls of proceeding based on such an approach.

### Back to the Future: Some Basic Scheme Design Principles

Before getting into the details of an ideal NZETS design, it is worthwhile first recalling some of the basic principles behind use of a market mechanism such as a trading scheme.

A climate policy that relies on a market mechanism has three main goals:

- a) it has a certain mitigation ambition, that is, the reduction of greenhouse-gas emissions;
- b) it relies on the market mechanism as a process for discovering the price(s) of reducing greenhouse-gas emissions; and
- c) it aims at providing continuation and security for the overall economy, especially businesses.

These three goals have moments of harmony but also aspects of conflict. An example of harmony is reducing greenhouse-gas emissions by pricing them but letting prices be discovered individually by businesses and letting individual businesses factor the price of greenhouse-gas emission in each individual cost curve. Examples of conflicts are pricing itself, thus creating new costs or, the possible divergence of the interest of the market – for example for all its agents to be treated equal – and individual businesses – for example, to be excluded from the market.

The market as a process is the key to minimising conflict between the goals of climate policy. This understanding of the market as a process is based upon three principles: the market cannot be judged by its end-state, because it is not possible to know them; the market is a system enabling each actor to find its own cost curve; and in order to enable it, markets must treat all actors equally.

These points are brought together in the following table.

Rationale for Market in Climate Policy	Role of the Market-Process	Consequences for Climate-Policy
Abating greenhouse gas emissions by pricing them	Discovering the macroeconomic price of greenhouse gas emissions	Differentiated carbon pricing according to country (quality or reduction, co-benefits, etcetera...)
Making investment in energy-and greenhouse gas efficiency more attractive by lowering its relative prices/costs in relation to the alternative (that is, emitting)	Discovering innovation	Technological development unforeseeable (so, it is difficult to accept the limitation of offsetting capacities just to forests)
Leaving enough leeway for economic agents to discover their individual greenhouse gas emission cost-curve	Discovering the microeconomic impact of greenhouse gas pricing, avoiding, offsetting and developing alternatives	Domestically, each economic agent will adapt differently to the greenhouse gas emission market, since each economic agent is differently impacted and has different capabilities and preferences <sup>11</sup>

So how do we bring together in a coherent way greater ambition and good market design? Rather than tinkering we need to focus on the desired end point and the pathway by which we might get there. The fundamental proposition for doing this is to design a market process that allows individual cost-curve-discovery and at the same time treats market participants equally. Such a design requires the following characteristics:

- a) an absolute scheme emission cap
- b) no price floor or cap<sup>12</sup>
- c) no free allocation of units
- d) non-discriminatory treatment of offset units both with regard to location and quality

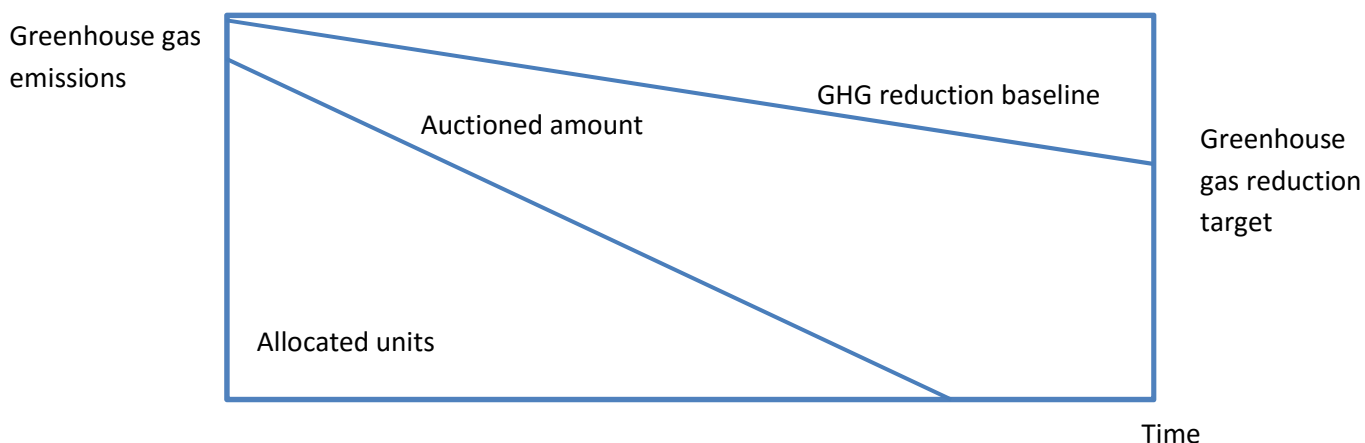
<sup>11</sup> Since every business has an individual cost-structure, individual preferences and individual stocks of capital, each business has an individual way of perceiving greenhouse gas emission reduction. Only on the individual level it is possible to integrate the mostly exogenous factor of carbon pricing, carbon market or carbon policy to the individual structure, preferences and means.

<sup>12</sup> Floors are, as attested to by the experience of the Australians when trying to design one, are inherently complex to design and costly to administer. Australia abandoned its attempts to develop a price floor. In general, it is considered that the costs of implementing a price floor would outweigh the benefits of doing so.



- e) all sectors, all gasses
- f) auctions
- g) access to international carbon markets<sup>13</sup>

This revised design can be shown stylistically as follows:



All these proposed adaptations envisage making the system more market-prone. This especially means establishing which agents can participate in the market (all economic agents) and under which conditions (all surrendering equally, that is, a full surrender obligation). Preferential treatment for some sectors of the economy (for example, the 1:2 surrender obligation) not only discriminates against market agents, but substantially challenges price-discovery in the market-process.

Needless to say, this scheme design sketch is substantially different from the scheme we currently have, and for that matter, from any other scheme that has been established anywhere else. There are, of course, some important and necessary conditions to this 'ideal' design, these being:

- a) foremost as an 'ideal' design, its primary purpose is as a touchstone by which to judge the direction of any changes proposed. Therefore, it is as much of an analytical construct than a practical, real one;

<sup>13</sup> Access to international markets is a critical component of achieving a deep and liquid international carbon market and therefore to the overall design of the NZETS. Yet the discussion document does not address international market(s) for greenhouse gas reduction efforts. This is peculiar since the review contains questions concerning them – and especially their prices – but no discussion of what these international markets might be or when they might develop. On the one hand, this is understandable, since international market(s) are currently undeveloped. On the other hand, because of this state, it is important to develop different scenarios for the future, especially if we want to open our climate policy to them. It does not suffice to say that there is an international carbon market; it is equally fundamental to understand how this market can be used in a policy sense, especially the timing of its use. A possible scenario is the following: in the post-2020 world, there will be three different types of international markets:

- a) the first type is the mechanism mentioned in the Paris Agreement and its differentiation under United Nations Framework Convention for Climate Change (UNFCCC);
- b) the second type are international market(s) outside the UNFCCC umbrella, for example multilateral mechanisms implemented and managed by different countries or clubs of countries; and
- c) the third type are ETS' that allow outsiders to buy certificates and ETS' that allow outside certificates to be rendered (if this presupposes a formal linking or just terms of exchange, is another issue).

- b) is only meaningful when a similar ideal design is in place for New Zealand's major trade competitors. For this ideal design to work to maximise global economic and environmental efficiency there needs to be consistency in treatment of allocation across multiple national level "ideal" schemes – if no-one has a free allocation/exemption and everyone implements a no free allocation, all sectors, all gases scheme then it will work, otherwise design compromises will remain appropriate;
- c) ambition, especially with an absolute target, cannot be at the same time economically feasible and absolute in its means of implementation. In order to be achieved and at the same time be economically feasible, ambition has to allow for differentiation in its means of implementation at least in the short to medium term. This is critical to avoiding carbon leakage.

The purpose for setting it out is to signify the challenges associated with making tactical, bespoke changes in an overall design vacuum - some can be done sequentially, but others form a core part of an integrated package and cannot be separated<sup>14</sup> - but also to commence a more strategic conversation with business about the overall direction and nature of the changes that might be required to deliver on increasing ambition should that be appropriate.

### **Some other policy-relevant thoughts**

Before getting into the specifics of what the above means for moving forward, it is worthwhile making the following points, as these are informative in policy setting. For example:

- a) there seems to be confusion about the concept of providing business with greater certainty. Business can not expect certainty – it has no certainty in other areas – such as the future cost other inputs such as the cost of labour or electricity. Actions taken on the basis that business needs long term certainty are therefore misplaced especially when the certainty being offered is price related. What business wants is *predictability* and *stability* of the conditions and frameworks in which they operate so they can plan with greater confidence, knowing that the assumptions they make about the future are broadly likely to hold. This should not be confused with the outcomes that eventuate as a result of the conditions and frameworks– outcomes like prices are the result of a complex interplay of individual incentives and actions. These cannot be predicted nor in a full market-setting should they be managed;<sup>15</sup>

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<sup>14</sup> The latter primarily relating to those design features which are integral to the process of price discovery.

<sup>15</sup> It is this desire to manage, or control the outcomes of the market, combined undoubtedly with a large measure of frustration with the persistent low carbon prices that have apparently motivated some commentators to call for the abandonment of the NZETS and the establishment of a tax. Such calls are short-sighted. A tax is not simpler (one need only look at the Tax Act to observe this) and does not void the need to ask the fundamental questions we have posed around strategic direction, relative contributions, the protection of export exposed industries, competitiveness and economic burden sharing. Such questions do not go away.

- b) in the context of uncertainty, the discussion document is overly preoccupied about inconstant prices, volatility and risk. Businesses, as economic agents, however, are used to dealing with variations in prices and volatility – if they originate in the market-process. These variations are not only a part of the dynamic of the market, but fundamental to the development of the agents in the markets. They learn to incur risks, secure risks and develop alternatives to these risks (such as through forward markets). If markets should also trigger investments in energy and carbon efficiency and in innovation, as the discussion document notes, volatility is a necessary feature for this process. On the other hand, there is unnecessary volatility created by “market management” and constant signals of change. One of the great paradoxes of artificial markets is that the more they are managed, the more volatile they become. This is due to the diminishing amount of trust of the market agents in the markets themselves. If a market needs to be managed, then the market does not work – at least, in the perception of its agents. And since their perception is what makes them act, they will adapt their actions to the actions of the markets managers and not to the signals provided by the market-process, creating, thus, a vicious cycle (reference the experience with the UNFCCC created and ‘managed’ Clean Development Mechanism, and the price of its CER units);<sup>16</sup>
- c) the discussion document expresses concerns about how business plans or doesn’t for a carbon price. It outlines:

“ ..... indications that some other businesses are investing in emission-intensive assets that will be more vulnerable to increasing carbon prices.”<sup>17</sup>

As noted above, this seems to be a commentary on the price of carbon, but if correct, such a conclusion would be simplistic - each economic agent (for example, business) will adapt differently to the greenhouse gas emission market, since each business is differently impacted and has different capabilities and preferences. This will play out in observed and planned behaviours and reflects businesses making rational decisions given their assumptions about the forward prices they might face including the presence or not of alternatives that will maintain their market competitiveness. Businesses which make inappropriate decisions now will lose competitiveness later but this cannot be foretold;

- d) a carbon price is not primarily intended as a tool to shut down businesses that emit greenhouse gases. Rather – on the basis that

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<sup>16</sup> Carbon markets are not “natural”, or fruits of spontaneous order, they are artificially created markets. Their agents are preoccupied not only with the dynamic in the market itself, but especially with the dynamic of the market-regulators. Bringing this second dynamic to a halt by stipulating a series of static rules is useful in decreasing unnecessary risks and therefore volatility.

<sup>17</sup> Ministry for the Environment discussion document, op cit, section 2.2, page 10.

one does not act unilaterally and that consumer demand still exists - it is intended to find the most efficient global producer of greenhouse gas intensive goods and services. It is possible that in some countries, the production of greenhouse gas intensive goods and services might grow, as other producers can no longer compete on an equivalent carbon price basis; and

- e) the expression of an 'effective price of carbon' has no relevance in economic theory and as such has no meaning or merit in the development of policy. Neither does it have any comparative usefulness due to the analytical contortions required to determine it combined with the information requirements to attempt to make such a comparison valid. The marginal price of carbon is the most appropriate concept to use and on that basis, our domestic price of carbon is higher than that of the EUETS, most of the Chinese pilot schemes, and Australia. Those who buy and sell carbon units do so at the marginal price (even if fully allocated free units) and the attempt to imply that those who are required to buy carbon do so at a discount conflates a meaningless expression with a concept that cannot logically be conflated – that of marginal prices and the fact that emitting businesses do not have responsibility for half of their emissions for valid policy reasons.<sup>18</sup> The continued use of this expression by officials is therefore an explicit criticism by them of current government policy settings.

This confusion seems widespread, even to the extent that NZIER, in its report says:

' ..... the removal of the 1 for 2 surrender obligation doubles the effective emissions price.'<sup>19</sup>

It does, of course, nothing of the sort. The carbon price is set by the complex interplay of demand and supply. Not only does this confuse the idea of effective price with marginal price, but it confuses the carbon price with the cost faced by emitters (the absolute cost currently faced by emitters would double). To a business, all costs that cannot be avoided add to reduce profitability.

## **Bringing these Elements Together**

Before outlining a proposed course of action, it is BusinessNZ's view that the factors it has outlined above do not invalidate the proposition that a trading scheme is, if well designed, the best policy response to the global problem (in other words the NZETS is not so ineffective that it should be scrapped). However, neither on the other hand, do they validate the proposition that a low

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<sup>18</sup> Similarly fraught is the concept of the 'social costs' of carbon. While also computationally difficult, leading to vast differences between estimates, it also fails to account for the social benefits derived from carbon.

<sup>19</sup> NZIER report, *op cit*, section 3.1, page 7.

modelled long-run economic impact at prices higher than the current price of \$9.50t/CO<sub>2</sub>-e justifies removal of the moderating features at this stage.

There is simply insufficient information at this point to make either judgement.

The complex inter-related sets of interactions – both domestic and international - are not reasons to do nothing, but to be cautious. While the future direction of travel with regard to a global transition to a low greenhouse gas future is now – post Paris – clearer, how the future will play out is as hard as it has ever been to predict. This has implications for the development of policy settings that are resilient to a range of future outcomes.

Therefore BusinessNZ considers that this has important implications for the development of policy, its direction and pace and that a more nuanced approach than that set out in the discussion document is required.<sup>20</sup>

In light of the above factors, we recommend that Government:

- a) develop a more co-ordinated, coherent strategic approach to climate change policy settings:

In light of the absence of evidence regarding the relative contributions of the full suite of domestic climate change policy settings (such as energy efficiency, public transport, electric vehicles, research and development, etcetera), and the direct link between a higher carbon price and the transition, and in light of no access to international units, we need to see more on the overall strategic plan and the institutional arrangements that might help co-ordinate and deliver on it. Do this by:

- establishing a cross-portfolio Ministerial Climate Change Group to improve at a leadership level the collaboration and co-ordination across Government. This group to be supported by senior officials;
- working with business when formulating its views, in order to better understand and leverage off the work of many of New Zealand's largest companies are actively managing their own emissions and finding new cost savings, efficiencies and opportunities as a result. They are already working together on key areas including: improving urban infrastructure so it is both resource efficient and resilient; sharing best practice leadership on climate change adaptation and mitigation; exploring how to assist consumers to make low-emission choices; collaborating

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<sup>20</sup> This is often referred to as policy making in a highly uncertain environment. In regulatory economics, the appropriate response to this is generally known as the 'value option of waiting'. In other words, in addressing complex policy issues it is often better to wait or make carefully assessed changes until more certain information comes to hand than make decisions whose interventions cause market changes that are uncertain but irreversible. Waiting enables policy makers, in light of more subsequent information, to observe if the initial response is inadequate (in other words, the expected benefits do not materialise). If this is the case, then the original intervention can be intensified or additional measures deployed. The practical effect of waiting is to set a higher cost-benefit threshold for interventions. This applies equally to interventions that provide the flexibility to take future action.

on low-emission transport; and improving energy efficiency. (See [Climate Change Action: Business Brief for Paris](#) for more detail). They are also in the process of identifying the systemic change needed for New Zealand to achieve net zero emissions;

- taking time to carefully consider the feedback it receives on both the priority issues and the longer term issues in order to align the two processes that have been artificially separated; and
- aligning the work being done on the overall package of climate change policies and NZETS redesign with the likelihood of more stringent international targets as the review processes and NDC reassessment processes get underway. This is a tangible touchstone for future assessments of climate change policies as more information comes to hand;

b) don't return to 'tinkering' with the NZETS design features:

We support the removal of the transitional features - the 1:2 surrender obligation and the price cap, and the re-institution of the phase out of free allocation. Further, we would support a limit being placed on the use of international units and rigorous controls being placed on the nature of the international units able to be imported. We believe all of these steps to be necessary to fully effect a domestic transition to a low greenhouse gas economy. We support this being done in a manner that maintains the international competitiveness of the business sector, by:

- working with business and other stakeholders on the appropriate long term design of the NZETS, in order to ensure strategic alignment of any specific tactical changes to it;
- removing the 1:2 surrender obligation in a manner co-ordinated with the achievement of *the earlier of*:
  - the development of the auctioning mechanism and the re-establishment of access to international units of an acceptably high quality; or
  - the attainment of some suitable metrics based around the extent of global emissions covered by a carbon pricing in other jurisdictions (at an economy and sectoral level) and comparable effort, in terms of GDP per capita or some other appropriate metric in order to be assured we have an economic and competitive burden that matches that of other jurisdictions;
- recycling any revenue received from auctions into the encouragement of low carbon initiatives; and

- announcing an intention of greater ambition *now* that a limit (to be defined in conjunction with business and other stakeholders) will be placed on their use that when access to international markets are eventually re-established.

## Summary

The discussion document raises more questions than answers. In order to help address the questions, a more co-ordinated focus from Government and officials is required that helps draw the relevant strands together into an integrated, coherent and strategically focused whole. This submission sets out a framework for thinking about how to move forward to achieve this.

What is required is a clear medium to long term pathway appropriate to the New Zealand economy, environment and business conditions that can be progressively made more ambitious if actual international circumstances warrant it. Not a pathway based on expectations of international action whose impact on the domestic economy and environment changes as international expectations constantly evolve.

Caution is required against continuing to base policy on over-optimistic assumptions of international action in order to ensure that changes do not place a burden on business that is disproportionate to the costs faced by our trading partners.

BusinessNZ believes that its recommendations are a pragmatic response to the enormous difficulty inherent in the trade-off between tackling the issue of carbon market uncertainty while preserving the effectiveness of the approach set out in the NZETS. The recommendations preserve New Zealand as a good place to invest and combined with other policies, New Zealand's commitment remains credible.

BusinessNZ looks forward to working closely with officials and Ministers as the proposals set out in the discussion document are given more scrutiny.

Yours sincerely



John A Carnegie  
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BusinessNZ

## **APPENDIX ONE: ABOUT BUSINESSNZ**

Encompassing four regional business organisations (Employers' & Manufacturers' Association (Northern), Employers' Chamber of Commerce Central, Canterbury Employers' Chamber of Commerce, and the Otago-Southland Employers' Association), BusinessNZ is New Zealand's largest business advocacy body. Together with its 80 strong Major Companies Group, and the 70-member Affiliated Industries Group (AIG), which comprises most of New Zealand's national industry associations, BusinessNZ is able to tap into the views of over 76,000 employers and businesses, ranging from the smallest to the largest and reflecting the make-up of the New Zealand economy.

In addition to advocacy on behalf of enterprise, BusinessNZ contributes to Governmental and tripartite working parties and international bodies including the ILO, the International Organisation of Employers and the Business and Industry Advisory Council to the OECD.