



Submission on New Zealand's Post 2020 Emission Reduction Target

A Submission by Carbon Market Solutions Ltd

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About Carbon Market Solutions Ltd

This submission is made by Carbon Market Solutions Ltd, a New Zealand carbon advisory, trading brokerage, and project development business based in Hamilton, New Zealand. Carbon Market Solutions Ltd was established in August 2003 and has a long track record of assisting New Zealand companies to transact in the carbon market, including advising 3 of the first 4 ever JI deals from New Zealand as well as the first large volume forestry deals from NZ to a European buyer. Carbon Market Solutions Ltd has been in business for over 11 years and has been at the forefront of developments in the carbon market in New Zealand. More information can be found about Carbon Market Solutions at:

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New Zealand and its post 2020 Climate Change Target

During the First Commitment period of the Kyoto Protocol, New Zealand was able to meet its commitments and come up with a small surplus of Kyoto Units of several million tonnes. This was despite earlier concerns that New Zealand might come up short and the taxpayer might need to shoulder the cost of complying with Kyoto commitments. In addition, there was the perception that the New Zealand emissions trading scheme would act as an incentive or a catalyst for additional plantation forests in New Zealand which would act as a carbon sink and encourage increased carbon sequestration while at the same time providing a boost to New Zealand's forestry industry. This did not happen because the NZ ETS has not (to date) led to significant additional forestry plantations in New Zealand.

At the same time, the efforts undertaken by New Zealand to reduce GHG emissions have not been enough to ensure that global warming increases are limited to plus 2 degrees Celsius. New Zealand along with other countries needs to do more. Therefore, we believe that the New Zealand post 2020 target needs to assume that there will be a new international agreement on climate change and

needs to be consistent with New Zealand contributing towards its share of limiting the increase in mean global temperature to no more than 2 degrees Celsius.

The European Union has set a target of reducing GHG emissions by at least 40% by 2030 with an ambitious set of policies and measures which are already starting to show results. In contrast, New Zealand has a target of only a 5% reduction below 1990 levels by 2020 and a 2030 target has not been set. The consultation document suggests that the cost to New Zealand economy of reductions (due to prevalence of GHG emissions in agricultural sector) will be 10-20 percent higher than say in Europe. Based on this, it is clear that New Zealand needs to do significantly more than a 5% reduction planned by 2020 but that a 40% reduction (as proposed for example by the European Union) is not realistic or feasible so we suggest that the best approach is somewhere in the middle:

- We therefore recommend that New Zealand sets a target of 20 percent reduction of GHG emissions below 1990 levels by the year 2030

When making this statement, we assume that we are going to get a new international climate agreement in Paris in 2015 or shortly thereafter.

A high domestic price on Carbon of NZ\$15 + rising over time

Clearly, achieving a 20-30 percent reduction by 2030 is going to require stronger policies and measures and in addition it will require a higher price on carbon. For example, modelling done by Carbon Market Solutions in the past has showed that a stable NZU price of \$15 or above is necessary to incentivize significant increased investment in the forestry sector in New Zealand. Indeed the experience of the NZ ETS has been that it has NOT incentivised significant additional investment in plantation forestry in New Zealand. Not since 2010, have NZU prices been in this range and in 2013 the NZU prices declined to less than \$2 per tonne. While prices have increased over the past two years into the \$3.50 - \$6.50 range they are still significantly short of what is needed for the ETS market to become liquid. Therefore, if the NZ ETS is going to be a long term catalyst to additional planting in New Zealand the NZU price needs to be higher and it needs to be more stable. The EU is considering a 'stability reserve' for this matter to keep prices of EUAs stable and yet for New Zealand there is simply nothing similar.

NZU prices have remained low and the extremely low price of international Kyoto Units over the past few years (< 10 cents per ERU) have meant that emitters facing liabilities simply bought up international units in order to meet their obligations. The proposition that the conversion of forestry land into dairy farming land would be stopped by the de-forestation liability under the NZ ETS has also not proven to be true. Due to the low price of international units, investors simply converted land from forestry to dairy and paid the charge.

In 2014, there was almost 1.7 million hectares being used for dairy farms in New Zealand and the number of dairy cattle has increased from 5.3 million in 2007 to over 7 million in 2014. The amount of irrigated land in New Zealand being used for farming is increasing and the rate of additional plantation forestry has slowed. As of 2014, New Zealand's plantation forest is 488 million m³ an increase of only 1.8%. While dairy numbers have gone up by over 20% in the past four years, the amount of New Zealand's plantation forest estate has gone up by only 1.8% over the same time frame.

This means that one of the main original goals of the NZ ETS which was to encourage new and additional plantation forestry in New Zealand, has not happened. The New Zealand government should reflect on this and acknowledge that the low price on carbon (low NZU price) has been one of the main reasons for this.

However, we also recognised that most of New Zealand's plantation forests are managed under a clear fell regime based primarily upon a wood product supply chain. Thus it is known by government and industries that looming in the near future is an emission liability of a magnitude that would significantly impact the current NZ emission profile (even though the profile is now already in liability phase). Alongside agriculture, the profile starts to look intimidating in a reduction of emissions point of view.

New Zealand is a land based economy so forestry and agriculture are core to New Zealand's climate change policy. Yet, currently, only forestry is in the NZ ETS but low carbon prices do not provide enough incentive for additional planting on a wide scale, with the agriculture sector still not a participating sector in the NZ ETS. Over the longer term, the low carbon price is an issue and will continue to prevent large scale investment in carbon forestry. In order, to encourage stronger NZU prices the government should:

- Remove the 2 for 1 rule whereby emitters can surrender 1 NZU per 2 tonnes of CO₂ reduced to increase demand and put upwards pressure on price. New Zealand could announce that it is going to get rid of this rule as soon as the new International Climate Agreement is in force as this will send a signal to the market that longer term the price is going to rise;
- Remove the \$25 price cap on the price of NZUs and instead impose a price floor of \$5 per tonne at some point in the future perhaps announcing this will happen at the same time as a new International Climate Agreement is in force;
- Link the NZ ETS to other international emissions trading schemes (from 2020) in order that New Zealand can benefit from a more liquid carbon market from linkages to other schemes

In the agricultural sector, GHG emissions represent 48% of overall emissions and are increasing mainly due to increased use of land for dairy farms. If New Zealand wants to reduce agricultural emissions, the agricultural sector needs to enter into the ETS and to stop delaying its entry on political and technology grounds. Making such an announcement in Paris at the COP-21 meeting would signal to consumers that NZ government stands by its primary produce (eg, farming and wood products). The Paris announcement could simply be that:

- Agriculture is to enter the NZ ETS from 2020

In the transport sector, international experience shows that the best way to reduce greenhouse gas emissions is to make public transport more efficient and more affordable and to increase the cost of road transport. New Zealand could start by developing a high speed rail network between major centres, which is faster and more affordable encouraging people to use the train instead of the car or the plane. Paris to London is 470km and takes 2 hours and 20 minutes on the Eurostar. Wellington to Auckland is 640km and takes 8 hours by car or 11 hours by train. Is it any wonder that people in New Zealand choose to fly or drive between Wellington and Auckland. Transport sector emissions will continue to rise unless New Zealand can make public transport a much more affordable and more efficient option for the general public. For example, if a high speed rail link was in place that

took only 3 ½ to 4 hours between Auckland and Wellington it is clear that many more people would use the train. We recommend that the Government should:

- Take much stronger steps to encourage and incentivize greater use of public transport, starting with detailed consideration towards investing in a high speed rail link between Auckland and Wellington

With the government promoting a possible target of a reduction of GHG emissions to 5% below 1990 levels, without any new commitments under KP2 over the period of 2012-2020, then some key points need to be identified to assist New Zealand to reduce GHG emissions over the longer term.

- Post 2020 emissions will rise dramatically due to an overall increase in forestry harvesting, the harvesting profile for New Zealand's plantation forests has been known by government and industry for at least two decades prior to the harvesting occurring. The volume of harvest is likely to increase if world wood demand and price rises as predicted;
- Linked to this is the urgent need to have the forestry sector invest in new and additional afforestation activities, which currently lacks incentives through the current ETS framework simply because the NZU price is too low. The government should introduce measures such as removing the 2:1 rule and examining in more detail what the EU is doing through its planned stability reserve to ensure longer-term that the price rises
- Making sure that the review of the NZ ETS specifically examines options to promote longer term price stability and increase in price of NZU over time, looking specifically at the EU experience with the EU Emissions Trading Scheme where there are many important lessons to be learned and where the EU is considering to put in place a 'Stability Price Reserve'

The New Zealand Government should support a least cost approach to mitigating emissions while at the same time recognizing that a main stimulus to developing a low carbon economy will be a high price on carbon

Longer term the New Zealand government needs to recognize and to publically state that the best means of reducing GHG emissions in New Zealand will over time be a higher price on carbon, meaning that measures need to be put in place to ensure that slowly over time the NZU price is going to rise, and thus catalysing development and implementation of energy efficient and non-fossil fuel related technologies. At the same time, access to international carbon markets should remain a cornerstone of New Zealand policy on climate change, thereby ensuring a least cost approach. Capping use of international units within the ETS (such as a 25% cap), will ensure focus remains on domestic units and their use.

The NZ ETS is a building block around which future climate policy can be built with the goal that by 2020 the NZ ETS will include all sectors of the economy as originally was intended. Carbon Market Solutions believes that it is simply ridiculous over the longer-term that the sector of the New Zealand

economy with the largest emissions footprint (e.g. – agriculture) is not included in the NZ ETS. Specific GHG mitigation options for New Zealand that could be considered include the following:

1. **Review of NZ ETS:** Review and improve the current ETS to include: the removal of the 2:1 obligation for participants particularly as the current ETS is insular until at least 2020 (or until a new international climate change treaty comes into force) and put in place a price floor of NZ\$5 per NZU from 2020 onwards. The Review of the NZ ETS should also review the experience and lessons learned from other emissions trading schemes (in particular EU ETS with the excellent recommendation for market stability reserve for the EU ETS – New Zealand could consider something similar!) to provide for price stability over the longer term. Reviewing NZ ETS requires New Zealand to also review the experience of other countries in some detail.
2. **NZ ETS Improvements:** If possible, the ETS improvements should also allow for the use of Kyoto units both from CP1 and CP2 (in a future international climate agreement from 2020) based upon the true up position about to be undertaken by government to be used in the NZ ETS post 2020. The use of these units would be limited or capped at a pre-determined level (egg, 25% of the total allowable).
3. **NZ ETS and Agriculture:** New Zealand needs to be a leader and not a follower on agriculture and emissions trading. The New Zealand Government needs to make a public statement concerning when agriculture will be introduced to the NZ ETS. While other sectors are progressing toward a less fossil fuel based industries, agriculture which has the largest GHG emissions profile in the New Zealand economy remains untouched. We believe that over the longer term this is an untenable situation. In addition, NZ's waterways are in significant decline quality wise, and this must be linked into the overall thrust of planning for post 2020 emissions. Therefore, we believe that New Zealand should announce its intention to finally include agriculture in the NZ ETS by 2020, subject to there being an international climate agreement announced in Paris or shortly thereafter.
4. **Transport Sector Policy:** In the transport sector where GHG emissions are growing significantly (currently representing some 17% of total GHG emissions), New Zealand needs to focus efforts on policies and measures to significantly improve the quality and efficiency of public transport. Transport sector GHG emissions in New Zealand will continue to grow unless we can make public transport more effective and more efficient. Experience from around the world shows that consumers will choose public transport when it costs less and saves them time. Introducing road tolls on motorways, reducing the cost of public transportation, and reducing the time for public transportation between major hubs (e.g. – high speed rail network from Auckland to Wellington) should all help.
5. **Renewable Energy Policy:** New Zealand is one of the few countries in the world that is not introducing or has not introduced green feed-in tariffs for renewable energy. It is not correct to state that due to declining technology costs renewable energy technologies such as, small and micro hydro, solar PV, and biomass/biogas energy for power do not require feed in tariffs. The payback period on these technologies is currently too long and the market is too

difficult for small independent power producers. New Zealand should examine in detail both feed in tariffs for selected renewable energy technologies along with other market enhancing mechanisms (such as feed in tariffs set through auctions for renewable energy), such as complementary grid access for selected renewable energy technologies, and reduced grid fees and tax rebates for selected renewable energy technologies. Renewable energy policy in New Zealand should focus primarily on 'incentive' mechanisms thereby promoting an enabling environment, even though some argue that NZ's energy profile is already high in renewables. While true to some extent in terms of large scale hydro, one only needs to research out new energy developments to see that large hydro development has already reached its peak, and in the longer term other technologies need to be encouraged, and not only in larger scale formats.

6. **Energy Efficiency Policy:** Finally, energy-efficiency in buildings is an area where Europe has made huge progress over the past few years with the introduction of new building codes and with the EU's Energy Efficiency Performance Buildings Directive. Energy-Efficiency in buildings has huge potential to reduce greenhouse gas emissions in New Zealand. The New Zealand Building Act (2004) should be amended to reflect international best practice on building codes introducing new requirements for buildings. The EU has set a target for all new buildings to be nearly zero by the year 2020. The EU has a system of mandatory energy performance certificates for all buildings which provides information about the energy efficiency of buildings and recommended improvements. The EU has also put in place financial support mechanisms in EU to pay for energy efficient renovations in buildings. In short, while New Zealand has the EECA (Energy-Efficiency Conservation Policy Authority), New Zealand legislation and policies on energy efficiency in buildings falls well short of international best practice. In addition, in the area of public buildings experience in Europe has shown that energy management information systems (EMIS) can play a very important role in promoting investment in energy-efficiency in public buildings. We urge the New Zealand Government to carefully review what other countries have done in the area of energy-efficiency in buildings (in particular the EU) and to come up with a revised set of policies and measures to further promote energy-efficiency in buildings in New Zealand.

We hope you find the information in this submission useful and if you would like any more information please contact me at wayne@carbonmarketsolutions.com and we would be happy to make further comments and or appear in person, as required.

Yours sincerely,



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