

Climate Change Consultation Contribution,  
Ministry for the Environment

01/06/2015

Dear Sir/Madam,

We feel New Zealand has the power, resources and ingenuity to be leaders in the coming reform of carbon emission contributions. We feel that we not only can, but should, and must live up to the green image we convey to other nations as our future depends on it.

Having thoroughly read through the consultation document, as well as the Infometrics report, we are very disappointed with New Zealand's proposed contribution for the new international climate change agreement (ICCA). We feel that New Zealand can and should aim higher, showing that we are serious about climate change action. The current proposed contribution should be rewritten to reflect this so it can proudly be put forward at the United Nations Framework Convention on Climate Change (UNFCCC) in Paris later this year.

The document appears constructed from weak excuses for why New Zealand cannot afford to take action, when really we should be focusing on how New Zealand can grow from climate action leadership, and benefit from a low carbon economy. There is one cost that we do need to focus on and that is the cost of not acting. These costs will add up from;

- Increased pressure on infrastructure as weather events become more extreme and frequent.
- Pressure to provide for climate refugees.
- Health costs that arise during the more frequent natural disasters and change in abiotic circumstances (Patz et. al 2005; Walther et. al 2002).
- Further loss of land from rising sea levels and pollution.
- Tougher farming conditions due to increasing drought events (IUCN Fifth Report).
- Water shortages leading to food shortages over a longer time frame
- Loss of endemic life

New Zealand's economy is currently predicted to grow. Without climate action, this is merely a short-sighted possibility. The fundamental economic drivers of our century are the threat of climate change and the risk of ever higher oil and gas prices. As climate change creates growing costs, this will cause a drop in our 'growing' economy. Here we have a choice to change our economic direction from a fossil fuel based economy, with a dead-end future, to a nation run off 100% renewable energy. A 2013 report conducted by the Technical Thermodynamics of the German Aerospace Centre called 'The Future is Here', suggests that the pressure of climate change could be harnessed to create huge opportunities for the growth of New Zealand's economy and employment. Action on the points discussed in this submission could position New Zealand as global leaders in climate change response, make our economy resilient, and increase our clean, green reputation, which currently is worth over \$13 billion.

The Government wants to be sure that businesses and households do not face additional costs due to action on climate change. The proposed document suggests that any and all commitment to reduce emissions will come only with large costs to our economy and household consumers. Alternatively the Infometrics report shows that emission reductions as high as 40% will decrease GDP by only 1.1%, RGNDI by 1.7% and household consumption by 2.1% compared to business as usual, and is only 0.2 to 0.7% higher than a 5% decrease in our emissions. The mismatch in these documents suggest a flawed Government analysis and make it challenging for submitters to come to an educated decision on what our climate change target should be.

The Infometrics report suggests only a very small cost of acting, and many other statistics suggest that we financially have a lot to gain by acting. The loss of environment, habitat and the economic challenges that will occur if nothing is done drastically outweigh the opposition. So with this we urge

that New Zealand's Government addresses our wishes and needs by committing to at least 40% reduction in greenhouse gas emissions below the 1990 level as our contribution under the UNFCCC. It is estimated that this is the minimum contribution required to keep global temperatures from rising above 2 degrees. The three biggest contributors to our emissions are the transport sector, the energy sector and the agricultural sector. To achieve a 40% reduction we must be assessing every contributing sector.

**Transportation** is currently responsible for 17% of New Zealand's greenhouse gas emissions. Oil imports alone cost us \$7 billion NZD per year and will only go up unless we move away from oil consumption through innovation and supportive legislation. Additionally we have thrown \$12 billion into a road building programme. The road technology that this budget is being spent on is outdated and not future proof. It merely deals with current issues and by the time it is implemented it will be outdated for the problem at hand. Lastly, the current road expansion will also not help reduce New Zealand's emission.

The Energy Revolution modelling (ERM) suggests huge opportunities for us to shift to a modern, fast-moving, economically efficient and intelligent transport systems, which can include electric powered public transport, electric and hybrid personal transport vehicles, and the replacement of diesel with wood-based liquid fuels from forestry for heavy transport and industrial use. Diverging from ancient oil based strategies and developing this new pathway will bring economic benefits if a full commitment is given;

- Eliminating the \$7 billion annual oil import cost
- Create 27,000 jobs within the bioenergy sector,
- Make our road transport 30% more productive
- Reduce our transport emissions by 95% by 2050.

For the **energy sector**, currently emitting 22% of our greenhouse emissions, we encourage the Government to plan to provide all electricity from renewable sources by 2025, and provide all areas of energy (including transport, heating and industrial use) by 2050. The ERM projects that this switch in energy sourcing will reduce carbon dioxide emissions by 45%, create a \$150 billion high value-low carbon export economy by 2025, create over 25,000 jobs and reduce electricity costs by \$600 million. This modelling includes a population rise to 5.7 million by 2050.

Huge opportunities lie in geothermal energy, and New Zealand is a thermal hotspot already targeting some of this potential. The International Energy Agency (IEA) projects that global geothermal growth will reach a total capital value of US\$310-400 billion by 2050 as countries catch on to this global boom. New Zealand possesses the scientific, engineering and innovative skills to capture a sizable share of this market. The government's role can be in financial support and policy design to, fund research, train and educate the youth and future generations, and prioritise these sustainable practices. By doing so we will maximise opportunities and promote innovative solutions.

As green energy technologies are created New Zealand will have further opportunities to explore them and reap the benefits that follow both financially, socially and ecologically. Ocean energy has huge global potential and New Zealand, being surrounded by high energy oceans, is in an excellent position to become an international centre of excellence for trialling and implementing these technologies.

New Zealand's **agricultural** sector currently produces 48% of our emissions. Strangely this sector has not been priced in the policy scenarios laid out in the Infometrics document, completely ignoring a huge area where climate warming emissions could be reduced. It is nothing more than an excuse that these emissions would be difficult to mitigate. For one thing, low-input farming methods are available. They would reduce pollution and increase farming profits, and for this we urge that the Government supports implementation. On top of this, the world does need more food, but not from meat and dairy (Gonzalez 2011; Stehfest 2009). With Government subsidies the land can be converted to low emission agriculture such as grains and vegetables. This will not only reduce methane gas emissions, but will help create food stocks that are more energy efficient and environmentally friendly to produce (Gonzalez 2011; Stehfest 2009). Additionally to this emissions reduction plan we call for a

moratorium on the number of cows in New Zealand, and for food education (on where food items come from, how they are produced including their land and water use, how they are transported etc.) so that people can make educated choices on their diet, encouraging a reducing demand for animal agriculture.

In additions to the economic gains available by acting on climate change, New Zealand has an obligation to our **Pacific neighbours**, and for this we must show strong leadership. As a highly developed nation we have the ability to reduce our emissions further than the goal and use carbon credits to support developing countries in their efforts to reduce their emissions. We encourage the government to commit to reduce emissions by a further 10% each period (120% reduction by 2050) in order to help our neighbours maintain their island homes.

Our last request to this submission is based on the impact of our **human population**. The science is everywhere to suggest humans are the cause and the solution to climate change. With our current human population of 7 billion, we have a food crisis (Foley et. al 2011). After crunching some numbers and looking at literature we have seen the only way to continue without population control measures is to eliminate meats and dairy from our diets. The space and other resources needed are too large to allow for prolonged growth of our species. We need to refocus on our emissions and food availability. This is one option, with education as we mentioned earlier, but another possible direction is to control the growth of the human population. This doesn't have to be too extreme. We recommend some hard hitting education on the costs of raising a family (financial and environmental), and suggest that all family planning and contraception should be free or heavily subsidised.

To conclude, we call on the Government to commit to reducing its greenhouse gas emissions to be 40% or more below 1990 levels by 2025, and commit to zero emissions by 2050 without requiring international carbon credits. Additionally we ask that the Government uses carbon credits to further reduce emissions by 10% each period to support developing countries.

Under the following topics that have been covered we suggest the following steps to help successfully achieve the goals of this commitment;

#### Transport:

- ✓ Shift the unnecessary \$12 billion road building programme to investment in smart rail and public transport infrastructure such as the Auckland City Rail Link.
- ✓ Prioritise the import and infrastructure needs (e.g fast charging points) for hybrid and electric vehicles.

#### Energy Production:

- ✓ Introduce incentives to harness the enormous potential in plantation wood waste to sustainable transport fuels.
- ✓ Make the Emissions Trading Scheme more stringent so that it works, enabling industry to move away from polluting energies.
- ✓ Commit to have 100% renewable electricity before 2025.
- ✓ Develop a low carbon action plan to ensure that by 2050 all areas of energy (electricity, heating, transport and industrial use) come from clean energy sources instead of fossil fuels.
- ✓ Shut Huntly coal and gas fired power station by 2020
- ✓ Phase out all subsidies for fossil fuels like coal and deep sea oil drilling
- ✓ Ban deep sea drilling and fracking for oil and gas in New Zealand.
- ✓ Reform the electricity markets by guaranteeing priority access to the grid for renewable power generators.
- ✓ Prioritise geothermal projects to realise enormous export opportunities in our geothermal industry.

#### Policy

- ✓ Promote New Zealand as an international centre of excellence for developing and trialling ocean energy technologies.

- ✓ Implement policies to incentivise 'low input' farming methods that are proven to reduce pollution and increase farming profits.
- ✓ Set a moratorium on the number of cows in New Zealand, as well as subsidies for transitioning to low-emissions agriculture such as forestry, grains, fruits and vegetables.
- ✓ Add food education and the costs of raising a family into the school curriculum
- ✓ Make all family planning appointments and contraception free to consumers.
- ✓ Create a New Zealand Climate Change Act (such as already exists in the United Kingdom) that puts national emissions targets in domestic law and requires every government to produce credible plans and follow them. This will show other countries that we are serious. As part of this, the Resource Management Act needs to be amended to require consideration of the effects of proposals on climate change.
- ✓ Create a cross-party climate working group to create stable climate policy that will not change every time there is a change in government. Climate change is a problem that will take more than a three year term to fix and will affect everyone for their entire lives. Creating solid climate policy will also allow businesses to make long-term decisions and therefore attract investment in low-carbon industries and innovation to New Zealand.

A low carbon-high value economy is there for us to grasp, but we need Government leadership and a long-term investment, backed up with a strategic vision, and complimentary laws and policies. Thank you for this opportunity for us to have a say on this issue. We hope that you carefully consider all the solutions offered and implement them into a detailed step-by-step plan.

"So is the climate threat solved? Well, it should be. The science is solid; the technology is there; the economics look far more favourable than anyone expected. All that stands in the way of saving the planet is a combination of ignorance, prejudice and vested interests. What could go wrong?"

- Economist Paul Krugman

Sincerely,  
Sophie Kynman-Cole and Joshua Haywood-Fogg

## References & Resources

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