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Ministry for the Environment  
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## **Have Your Say – Zero Carbon Bill**

Dear Sir/madam,

### **Introduction.**

I fully support moves to address the critical issue of climate change and am pleased that our newly elected Government has commenced the same. However I am of the opinion it may be all too little, too late and that adaptation should be given equal, if not higher, priority.

The following are in response to the set questions:

#### **1. The Commission's role:**

The Climate Commission should be *independent* in its make up and in its recommendations to the Government – and my concern here is the word independent . In today's world, vested interests have been able to influence and distort in their favour.

While I welcome the leader of the opposition offering to support the Zero Carbon Bill, I have reservations as to whether this is not without ulterior motives. Mr Bridges has stated that policy decisions should be left to the politicians who, as he says, are democratically acting for the public, or those that voted for them. But it is well known that National voters don't have a concern for this issue -they are either uninformed, ill informed (due to a successful denial industry) or have a vested interest to maintain the status quo - just watch "Hot Air – the NZ politics of climate change" if you have any doubts about that. This is one serious issue that should not be influenced by politicians who are elected by such voters.

The Commission must monitor progress and maintain transparency with the public – we need to know the bigger picture of our emissions reduction – or lack of. And while the Commission could set policy in some areas, one would need to be sure that it was acting independently without influence from any vested interests of any of its appointees.

Your document outlining what the Commission should consider appears to be more focused on the cost of any mitigating policies without considering the cost of not acting – which has been a common excuse used for lack of action/leadership to date.

#### **2. NZ needs a plan – to mitigate and adapt**

Yes NZ definitely needs a plan to mitigate and adapt to the oncoming threats to our people, our country/environment and our economy – and we need it now. It must have targets, timeframes and transparent progress monitoring to ensure results.

NZ must build resilience to adapt to the major disruptions that are on the way at a local level. A national plan must include a risk assessment and an adaptation plan to guide and support local communities.

Currently discussion appears to be limited to storm/flood damage adaptation/reaction but we have to anticipate the less tangible, but equally important, threats to our local regional communities with their resilience in their local food, local energy and local economies.

One grass roots adaptation response has been the goal of the global Transition Town Movement ([www.transitionnetwork.org](http://www.transitionnetwork.org)) to build resilient all-inclusive local communities and their experiences – both failures and successes – offers a valuable resource to assist us in this task. The movement in NZ has been activated in a few regions by a few but lacking in resources and support, has only made limited progress.

### **Carbon v Methane**

Yes there a case to consider methane from animals differently to CO<sub>2</sub> can be argued. I am referring to biological methane being part of a natural contained cycle – that is its eaten, passed out, absorbed by plants and eaten again – and having a shorter life than CO<sub>2</sub>. But this argument is weakened by the greater potency of methane and the speed that the climate is changing – thus the difference in life times of the gases is immaterial. Of course fossil methane, such as released during fracking, should receive no extra consideration.

### **3. Zero Carbon by 2050 – too late.**

A target for Zero Emissions by 2050 is far too late (if not already too late) - we should have an earlier target, say 2030. Thus the target and budgets to achieve the same should be revisable by future Governments to enable emissions targets to be brought forward if there is new scientific evidence to do so.

This flexibility will be necessary to allow for the expected exponential climate changes that are already in the pipeline. However there also needs to be a 'ratchet clause' to prevent any chance of vested interests repealing the law.

### **Gross emissions target.**

And we must aim to reach gross zero emissions by our own means – not net emissions such as purchasing credits from overseas which is NOT addressing the issue. Similarly within NZ, yes create carbon sinks such as tree planting but these should not be an 'off set vehicle' in which NZ firms can continue/develop high emissions production methods.

The ETS has been a complete failure in curbing emissions due to the watered down design influence by vested interests and subsequent 'creative accounting'.

### **4. Why is it too late?**

Exponential changes are happening now.

Climate change is well under way with many reports including the statement that it is 'happening faster than estimated'. Recent facts supporting this are:

- 17 of the 18 hottest years recorded since 1850 have occurred since the year 2000\* – just pause to ponder that fact if you read no further. The last three years have been the hottest trio ever seen.

\*(Independent analyses by NASA (National Aeronautics and Space Administration) and NOAA (National Oceanic and Atmospheric Administration))

- The Arctic reached temperatures 30 C degrees above normal – the average for the 2017 – 2018 year was some 5 degrees C (8.81 deg F) above normal.
- Some scientists predict Ice free Arctic in 5 years. The behaviour of the Arctic affects the whole planet. Complex -The question is not *if* things are going to change, but how fast and when and what are the changes we're going to see.

Implications of ice free arctic include such as:

- the release of methane in a thawing tundra and Siberian Shelf are huge and not even factored in by IPCC.

- slowing Gulf Stream = global extreme unprecedented weather changes such as the present colder extremes experienced in the Northern hemisphere. Michael Mann\* climatologist said this is happening 100 years before predicted.

\*(and geophysicist, director of the Earth System Science Center at Pennsylvania State University,)

- The Antarctic is melting 3 times faster than a decade ago. – (IMBIE Team is an international collaboration of 84 polar scientists across 44 different institutions, including Nasa and the National Snow and Ice Data Center, combining several different modes of measurement to produce one consensus result.)
- NZ waters in 2017 2C above average and up to 6.5 degrees above off the West Coast
- In March 2018, it is announced it is 14 months since NZ's temperatures have gone below average and thus described as 'pretty exceptional'.

Even this week as I write this submission, records continue to be set. The last week on 3<sup>rd</sup> July reported that large areas of heat pressure or heat domes scattered around the Northern Hemisphere have led to the sweltering temperatures - from the normally mild summer climes of Ireland, Scotland and Canada to the scorching Middle East, numerous locations in the Northern Hemisphere have witnessed their hottest weather ever recorded over the past week, horrendous floods in Japan .

No single record, in isolation, can be attributed to global warming. But collectively, these heat records are consistent with the kind of extremes that are expected to increase in a warming world.

## **5. Simultaneous Threats**

Add to this are the simultaneous threats such as the uncertainty of available cheap fossil fuels (both moral and thermodynamic pressures), the unstable global debt laden 'ponzi' financial system, resource depletion, ocean acidity, peak soil, peak water, pollution, extreme inequality, deforestation, species extinction, lack of food production diversity .....

If one steps back, it is not hard to see that climate change, and most of the above simultaneous threats are all symptoms of our present political/financial ideology of continued growth on a finite planet – which is of course impossible.

#### **6. Expert Opinions Support Adaption.**

A number of experts/academics are on the same page as above and are included in the Appendix below – a summary of their comments include: “the lack of research into community disruption at grass roots level,... founded on ‘business as usual’ instead of sharing and circular economies, .... NZ needs to focus on adaption as well as mitigation, ....., Our political institutions are failing to safeguard the welfare of future generations,..... Climate Act needs to be enabled more quickly than we appear to be,..... New Zealand has experienced decades of delay by some lobby groups,..... the UK Climate Change Act (CCA) was possible because there was strong cross-party commitment to tackling climate change,.... am not convinced we have the same level of commitment here in New Zealand today,.... government needs to be active and willing to step in when markets fail,.....”

#### **7. Paradigm Shift in Life Styles Required – Lets talk.**

Local resilience is a huge topic which cannot be detailed in this submission except to emphasise the need to start the public discussions at all inclusive, community levels. The conversation would include topics such as a move away from - political agendas; mono culture to diversified agriculture; to permaculture and biodynamic production; move away from centralised energy supplies; produce and buy local; ‘cradle to cradle’ waste systems; local currencies; and more.

#### **8. Lack of Public Concern.**

This is the main barrier that we face, particularly in NZ. Whilst the word ‘climate change’ is finally being heard in the main stream media’s vocabulary, public awareness, thus concern, is still lacking. This ignorance is well illustrated on social media and by the lack of any movement in political polls.

And even then, it is only extreme storm/weather/sea level events that are mentioned. Less tangible threats such as local food resilience don’t appear to be on the radar. Higher temperatures will have a major impact on plants – not only from the obvious moisture stress, storm damage but on the inability of plants to photosynthesis. World food supply is dependent on a very few crop species that are threatened by rising temperatures.

#### **Conclusion**

The conversation/research/assistance has to be instigated with local communities to increase the public awareness of the issue to ensure NZ finally has the political will to act on these threats. A

national risk assessment and adaption plan must be provided plus the support for communities in the building of resilience in their local food, local energy and local economies

Thank you

Ross Clark

### Appendix.

- Rod Oram's May 2018 report - <https://t.co/19KWxibXJr> echoes my above concerns of the need to build resilience in our communities to adapt to the disruptive changes ahead. The weaknesses illustrated -The reliance on new technology, yet to be defined; the lack of research into community disruption at grass roots level, the ultimate 'wellness' barometer; founded on 'business as usual' instead of sharing and circular economies. NZ needs to focus on adaption as well as mitigation.
- Simon Upton, Parliamentary Commissioner for the Environment (PCE) recently released his report on how the Govt can achieve zero carbon. Reviews say that NZ needs to focus on adaption as well as mitigation. I quote some of the academic's conclusions:
- "A key question that remained unanswered in the PCE report is whether the Commission should also look at climate adaptation and risk assessment. The IPCC has two separate Working Groups assessing adaptation and mitigation but there is some overlap. The New Zealand Zero Carbon Act will probably include both."
- "However, there will be so much urgent work for the Climate Commission to undertake initially on mitigation efforts in order to meet our international obligations and to catch up with emission reduction actions being taken by many other countries after our relatively slow start, that adaptation and resilience issues could best be left to the existing Climate Change Adaptation Technical Working Group hosted by the Ministry for the Environment."
- Another - "Our political institutions are failing to safeguard the welfare of future generations who will inherit a badly damaged climate system unless we shift urgently toward low-emission development. Implementing an independent Climate Commission that delivers capability, credibility and influence will be an important step in the right direction."
- Another - "Finally, this Commission and associated Climate Act needs to be enabled more quickly than we appear to be, while we certainly need cross sectors support, New Zealand has experienced decades of delay by some lobby groups, who are adept at advising governments to slow down. This new government has a once in a generation opportunity and a clear mandate and now needs to set out a timetable for action and implement it."
- Another – "As the report acknowledges, the UK Climate Change Act (CCA) was possible because there was strong cross-party commitment to tackling climate change. I lived through this period in the UK and I am not convinced we have the same level of commitment here in New Zealand today. As the report notes, there has been a reluctance to

implement policies that 'bite' in New Zealand – this is true of National with their rural electorate, but also true of Labour to date. This means that in New Zealand there is a risk that this legislation might be repealed or watered down by future administrations.”

- Another - “The biggest challenge to climate policy in NZ is not enacting the Zero Carbon Act or establishing a Climate Commission, it is overcoming the non-interventionist ethos that has engulfed Wellington in the last decade or so. There are times for government to be hands-off and let markets get on with it – for sure – but when radical change is need, government needs to be active and willing to step in when markets fail.”