Submission for the "Consultation on setting New Zealand's post-2020 climate change target"

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[redacted]

I submit that New Zealand must set strong targets for the post-2020 period, and take these to the Paris meetings. Furthermore, I argue that we cannot leave action until 2020, and that we need to start making deep emissions reductions now. New Zealand should be taking a lead on climate change, just as we did on being nuclear free. I take issue with the downplaying of New Zealand's responsibility to act. It is only right that we do our fair share, and that requires strong action immediately.

I wish to comment briefly on the consultation process. Public meetings were announced with inadequate notice and publicity, suggesting that the views of New Zealanders are not being taken seriously. Information needs to be provided on how the submissions to the consultation will be used to inform the Government's target, and there must be a commitment to making the results of the consultation public.

The Government's consultation document treats action on climate change as a cost, and exhibits a narrow fixation on the short-term costs of taking action, in a flawed and damaging manner. Climate action is an investment in a safe and prosperous future where we are all better off. Additionally, the International Energy Agency has stated that "Delaying action is a false economy: for every $1 of investment in cleaner technology that is avoided in the power sector before 2020, an additional $4.30 would need to be spent after 2020 to compensate for the increased emissions." The real cost lies in the failure to take action. Climate change is a threat to our economy and the things it most depends on, and the significant costs of inaction on climate change should have been better reflected in the consultation document.

Furthermore, there are many benefits of responding to climate change. A cleaner, greener future offers huge opportunities for our country, including better transport choices, safer streets for cycling and walking, and good jobs in the rail and renewables industries. The Government consultation materials suggest that New Zealand's unique circumstances make reducing carbon pollution challenging. This ignores the enormous gains we can make by investing in better transport choices, including rail freight, cycling and public transport.

The government must stop recruiting fossil fuel companies to drill in and around New and must cease subsidising the fossil fuel industry. This is completely inconsistent with concern for the climate crisis and makes a mockery of stated intentions to reduce our emissions.

At a parliamentary level, we need commitment from the National Party to join in cross-party development of adequate action on climate change. We also need a climate change law to keep government on track, in line with the UK Climate Change Act, including the development of an independent Climate Commission.

Targets

I turn now to the question of targets. We need a target for 2030, but we also need to acknowledge the target of zero emissions, and we need year-on-year targets. And with all of these, we need concrete plans to meet them. Having legally binding and substantial year-on-year targets will ensure that we do take real action, rather than delaying it until the final, impossible, moment.

In creating the substance of these targets, we need to turn to the science, first of all. In 2010, a global agreement to limit temperature rise to two degrees above pre-industrial temperatures was signed, however it is widely recognised that we are currently on track for four, five or even six degrees of temperature rise (as noted by the World Bank, the International Energy Agency and PriceWaterhouseCoopers).

First and foremost, I believe that we need to have a clear sense of what is at stake with such a future. Hans Schellnhuber, director of the Potsdam Institute for Climate Impact Research, argues that "The difference between two and four degrees is human civilization". Climate scientist Kevin Anderson, of the Tyndall Centre for Climate Change Research, writes that "a 4°C future is incompatible with organized global community, is likely to be beyond 'adaptation', is devastating to the majority of ecosystems and has a high probability of not being stable (i.e. 4°C would be an interim temperature on the way to a much higher equilibrium level)". The World Bank states that "there is also no certainty that adaptation to a 4°C world is possible".

It is sobering to spell this out in terms of human lives. Kevin Anderson has stated: "I think it's extremely unlikely that we wouldn't have mass death at 4°C. If you have got a population of nine billion by 2050 and you hit 4°C, 5°C or 6°C, you might have half a billion people surviving". Similarly, Hans Schellnhuber argues that given a 4°C rise, the earth's carrying capacity is estimated to be "below 1 billion people". Hans Schellnhuber and Kevin Anderson are respected climate scientists, known for their work in peer-reviewed journals. I am not asking that their word be taken as truth, however, as the uncertainties involved are well-known. These comments are, however, important markers of risk, and there is a high enough likelihood of such catastrophe for this to play a major role in our decision-making.

In addition, I note the 2010 work of William R. Freudenburg, which showed that new scientific findings since the 2007 IPCC report were found to be more than twenty times as likely to indicate that global climate disruption is "worse than previously expected," rather than "not as bad as previously expected." This gives clear support for taking a precautionary approach.

In a 2008 article in *Philosophical Transactions of the Royal Society*, Kevin Anderson and Alice Bows-Larkin consider what might be considered an optimistic path of global emissions reductions. The elements of this scenario are: deforestation peaking in 2015 and reaching close to zero by 2060; non-CO_2 emissions rising until 2020, and "emissions intensity of food production… approximately halv[ing] over the next four decades"; and CO_2 emissions peaking in 2020 and reducing by 3 per cent a year. Taking some justice considerations into account, this global level of reductions would require 6-7% cuts a year in majority world 'Annex 1' countries. Kevin Anderson and Alice Bows-Larkin calculate that this path will lead to an atmospheric carbon dioxide concentration of 600-650ppm by 2100 (significantly higher than the often-accepted 'safe' targets of perhaps 450ppm or 350ppm). Such a level is associated, however, with *four* degrees of warming.

Given this, I take reductions of 7% a year as the barest minimum for us as an Annex 1 nation. To adopt such a target would mean accepting the pictures of a 4 degree Celsius world I gave above, or something very much like it. Kevin Anderson and Alice Bows-Larkin, therefore, argue for significantly higher. Far from being 'radical', the science shows that such a rate of emissions reductions is, in fact, conservative. For the 2020-2030 period, 7% reductions each year results in a 52% reduction. I reiterate that this should be taken as a *minimum*. A somewhat safer rate of 10% reductions a year would result in a 65% reduction by 2030. In line with the work of Kevin Anderson and others, I argue here for complete decarbonisation by 2030 (with the suggestion of a commitment to 15% reductions a year for the 2020-2028 period). This target of complete decarbonisation by 2030 should be adopted by New Zealand and taken to Paris as a proposal for all Annex 1 nations. For our own sakes, and for the future wellbeing of all people.