

Zero Carbon Bill Submission

I am writing in support of the Zero Carbon Bill.

I believe every city and country around the world needs to act on climate change. I am in support of net-zero net emissions of all gases by 2050. This is an ambitious target, but I believe that serious action is needed now as time is running out for the planet to take mitigation measures.

I am 60 years old and have two children. I have seen the climate changing in my lifetime. Hopefully I will have some grandchildren and I want them plus my great nephews and nieces to know I cared about this issue and tried to be part of a solution for positive change.

New Zealand is a small country but known for its progressive legislation in the past: the 8-hour working day, the first country to allow women the vote and our nuclear free stance. I am proud of that heritage and would be proud of legislation that takes a real and measurable stand on climate change. We as a country have an opportunity to be a leader in our area of the Pacific and set an example for our neighbours, particularly Australia and also Chile and Peru in South America. We should embody in legislation what we have agreed and been a signatory to as a country at previous climate accords such as Paris.

New Zealand has some advantages over other countries that should make real progress possible:

- Majority of power generated is from renewable resources – hydro & wind
- Power generated at night time could be made available for charging batteries for electric cars & bikes and other power batteries
- One legal system for the whole country – no additional state legislation as in Australia or USA
- “Number 8 wire” inventiveness and practical skills
- Used to working with limited resources
- NZ has Maori heritage which is a foundation of government through The Treaty of Waitangi. The Maori tradition recognises and values natural resources such as water, fish, sea, marine and forest life.

As an island nation we have a lot of cities and towns on the coast, so we are experiencing first hand more intense storms and cyclones. Most of us who are older can compare with when we were younger and know we have experienced first-hand a change in climate in last 20-30 years. The legislation will need funding for adaptive change and knowing that central Government will have to assist local government financially with various infrastructure projects.

For many years I worked as an accountant for a company in NZ that provided helicopter support in Antarctica. Certainly, one highlight of my life was a trip to Antarctica in 2003/2004 on a Russian ice breaker chartered for tourist expedition. It had two helicopters from our company on board. So, I got to see first-hand a pristine wilderness and eco-system pretty much in-tact, including some large penguin colonies. It was a real privilege as a citizen of planet Earth to be able to visit. I have maintained an interest in Antarctica since, including some of the research on ice levels and climate change.

I have heard about one devastating penguin colony collapse in Adelie Land near the French base. There was so much pack ice from melting Ross Ice shelf that it was too far for birds to walk across this to open sea to get food then return to feed their chicks. So virtually all off spring and the adults birds died from starvation. In other areas the Emperor penguins make colonies and lay their eggs on sea ice. I was fortunate to visit one and observe the birds from a distance. In some colonies the rise in sea temperature has caused ice to thin from below, melt earlier in the season, drowning the chicks who have not yet fully moulted and able to swim. I find this most distressing.

Another experience in my life to form my views in relation to car use and transport has been having a seizure condition. For the majority of my life since age 15 when most people can get a driver's licence I have been unable to drive a car. I was well enough for a few years in my 30's to drive. I have got around by walking, biking, taking public transport, taxis, Uber or car-pooling and by plane. About 2 years ago I bought an electric bike which has been great, especially for shopping and errands and short trips around town. In some situations, I cannot go at all to places I would like and that can be rather frustrating.

But I have proved I can live a meaningful life without a car. I think this could apply to a lot of other people who should be encouraged or required to do so, at least some days per week. I am guilty of travelling by plane, both in NZ and internationally. I know this has a large carbon footprint and I want to contribute to offset or reduce this.

I would be happy to pay significant additional transport taxes or levies on airline tickets on the proviso that this extra cost goes to offsetting gas emissions or to adaptive climate change projects.

I am also old enough to remember the "Carless Days" of 1979 and 1980. These were mandated by the Government in response to the reduction in oil (and petrol) imports to New Zealand as a result of the political situation in Iran after the revolution. I had just finished university and started work at a predecessor to one of the "Big Four" accounting firms in Wellington. Every car owner had to choose the day they would not drive on and put a sticker on their windscreen to reflect that. Of course, there were some drivers who avoided the consequences by driving their second car on another day of the week. I did not own or drive a car at that point in my life. However, I do remember all the other staff saying how easy it was to find parking on The Terrace and how easily the traffic flowed on the motorway with fewer cars on the road. A lot of people started car-pooling for the first time. So, in spite of adversity the situation brought unforeseen benefits to traffic and the environment.

To achieve its goals for climate change, the Bill needs to take the long-term view instead of the usual 1-3-year election cycle or the 1-year financial reporting cycles for companies and businesses. We need to be measuring all key gas emissions and other scientific data, not just dollars and finances which have been the key measures reported by governments and businesses in the past. Guaranteed funding needs to be put in place in this Bill so it (the legislation and process) can continue regardless of which party/ parties are in Government.

Governments now and in period up to 2050 will need expert advice, based on the best available science to set targets, monitor and adapt to climate change. Agriculture needs to be included right from the start. It is going to require a lot of decisions that cross over many of the traditional government portfolios: transport, building, town planning, housing, local government, disaster planning and recovery, agriculture and energy to start with. This will then have a flow on effect that includes buildings for hospitals, airports and schools and housing provided by public and private sectors. For example, a change in building and housing regulations in say insulation and double glazing for energy savings, will have positive flow on effect for health in respiratory illness in children and elderly.

So, while there will be a significant cost in adaptive change there is also a real opportunity to meet some other government and societal objectives as well e.g. better insulated houses are warmer, so a decline in respiratory illness and related costs to government and lower power use hence cost savings for home owners or renters.

Another example is building design and town planning. If subdivisions were required to be re-designed in shape then new houses could be required to be built just one room deep and to face the sun, two storeys so be more compact and take up less land. More houses should be required to have eco features such as rain water tanks, solar roof panels, enhanced insulation over current standards (particularly in South Island), have power banks and be modular for quicker construction. As a result, houses should take up less valuable agricultural or tree growing land and being modular plus more compact, therefore more affordable.

Self-driving car technology is around the corner. So, we may not need for new houses to include such large or any garages – an avoidable cost and land use “saving”. I have seen first-hand the self-driving cars through the spaces in walls of parking buildings at Google in Silicon Valley. I understand one of the reasons, apart from safety, they are not being trialled is the huge impact and cost of adaptive change. Bringing in driverless cars would immediately impact the car manufacturing and oil industries along with all the related sub-contracting and support industries.

So, to provide and monitor the information requirements of this complex long-term process I believe we need an Independent Climate Change Commission. The experts on this should be “best in class” scientists along with social scientists, architects, farmers and town plannersall of whom should have a 30-year vision. As such the appointments should be based on education, expertise and merit rather than being appointments from industry groups who might just serve the short-term interests of the Government of the day or self-interest of lobby groups. The members should either include or allow for perspectives some young people under say 30 and even children who will be “living the change”.

In order to be effective and reach the goals set this Commission must be adequately staffed and funded for the long term – till 2050 and beyond. The legislation must have a “road map” or “budget” for emission targets so the overall 2050 goal can be achieved and monitored in stages, say 5 years. The legislation needs to give the Commission **real** powers to watch over the process and to be able to act decisively with suitable fines or penalties for any person or entity that is not following the standards and regulations. The Commission, the regulations & laws needs to be here for the long term and be above the influence of politicians and lobbyists from short-term election cycle.

Of course, it would be wise to build in some safe guards and re-assessment provisions for serious one-off events that could not be foreseen – like a serious volcanic eruption in the North Island – or another Krakatoa that affects the whole of Earth’s atmosphere. Maybe build this provision in with its own safe guards. For example, such changes might require > 80% of Parliament to agree and are only permitted for a short, defined time frame – say 1-2 years. Should these still be required then this requires voting on again. The overall goal should still be to get back on track to long term goals as soon as possible.

In summary in drafting of the Zero Carbon Bill I support

1. Net-zero Emissions of all gases causing climate change by 2050
2. Funding for Adaptive change and mitigation measures
3. Establishment of a Climate Change Commission with Independent experts, adequate funding and resources and real powers to be a “watch dog”
4. Emissions Budget set with interim targets in order to meet long term goals

Prepared by Eleanor Denton 15 July 2018