

To whom it may concern,

I apologise for the length of this email - in summary, I feel that our current efforts (as a country) have in no way been enough to even begin to save our planet from the effects of climate change within the next 50 years. While we ourselves are likely to survive, and die of 'natural' causes, our children are quite seriously at risk of starving to death. They will be facing the direct consequences of our actions and if we do not act NOW we may not have another chance to change the future course our climate is taking. We need to commit to reducing Australia's greenhouse pollution by 50% (of 1990 levels) by 2020. We need to transform our process to save our children.

I appreciate your consideration of the below submission.

The scientific data on our climate's pattern shows we are entering a 'heat wave' – essentially the average temperature of the Earth is rising. This has happened on Earth before, similar (but opposite) to an ice age, and is essentially not a new phenomena.

Since the Industrial Revolution, we have changed the natural system of the Earth mainly by displacing levels of nitrogen, carbon, water, etc. The data indicates the systems and processes we have brought into place since the 1950's have accelerated the natural warming of the Earth and we have created a new climate system for the Earth to work with.

In addition, the changes we have made to flora and fauna all over the globe, and the movement of nitrogen, phosphorous and water all around the world have changed the structure of the Earth's surface resources and in some ways we are 'spinning out of control' towards this heat wave, whereas if the Earth were entering the heat wave naturally it may occur at a slower rate or not reach such high temperatures and extreme events as scientists are predicting.

Since the 1950's we have introduced increasingly complex systems into our lives – be it manufacturing, energy production and consumption, introducing new species to different countries, or global economics. These systems have essentially arisen in an ad hoc manner, and we have unintentionally designed these complex systems in the worst possible way. The global financial crisis is an example of us creating a complex system in a less than ideal way, and in this case, when one part of the system failed (USA), the remaining parts were also heavily affected.

Scientists are predicting that the Earth's average temperature will rise 4 – 6 degrees in the next 50 years if we continue the path we are on (and sea level will rise 1m). To give you an idea of what this means, we are already at record high temperatures for the last 2000 years and a rise of 1 degree now will cause serious damage to ecosystems. The effects to weather means we will have more frequent extreme weather events like floods and fires.

A rise of 2 – 3 degrees is about the limit to our sustainable survival. The increase in mean temperature will affect all food production, and a rise of 4 degrees or above will mean an inability to produce enough food to feed the expected population. If the temperature rises 6 degrees we will have no chance of survival (as we know it).

If we can act effectively and peak our energy consumption by 2015 – we can potentially reduce the temperature rise to 2 – 4 degrees above mean temperature and will have a chance of survival for a little longer. While most of us probably won't be here in 50 years, our children are likely to be here and will be facing the consequences of our actions. If we don't act effectively within the next 5 years we will not be able to change the path we are on (as a planet) and the worst case scenario (starvation) will be the only scenario.

So, to 'act effectively' we need the highest scientific technologies to attempt to treat climate change – for example, we need full implementation of renewable energy and a shift in the way we distribute energy plus an integrated urban water system using grey water and black water. We need to redesign precincts to improve the energy efficiency of our households, connect waste to increase re-

use where possible. All of these initiatives will need to be implemented across the western world. Essentially it is only westernised countries which are using more of the Earth's energy than is available – and yes, on a per capita basis, Australia is the worst offender. If we implement all currently known scientific technologies it will not nearly be enough to change the path we are on.

We also need a huge behavioural shift to change our energy consumption on an individual level – by a factor of 10 (absolute minimum) in the western world. We essentially need to return to a 1950's lifestyle with say, one car (electric preferred) per household, and a very simple, sustainable way of living with local food production and energy efficient housing (or choosing not to turn on the air conditioner). We need to choose to use energy for public health and education (etc) rather than to manufacture, transport and turn on a plasma screen TV.

Populations in third world countries do not use anywhere near the amount of energy that we, in the western world use. On a level of equity, we need to allow their systems and development to grow to improve their quality of life. Essentially the developing world and the developed world need to meet halfway in their standards of living to sustain the world's population.

This does not offer much for global economics as our best way forward is to become sustainable within our local areas. What we can do is develop new environmental technologies in Australia that we can then export to the rest of the world. Also, there is a growing feeling internationally to address both climate change and the financial crisis in the one scenario rather than treat them separately.

We need a top-down approach from government to be able to implement all of this and save the planet. The research presented is nothing new – it has been known on a scientific and parliamentary level since the 1970's but it hasn't been a popular vote until now for government to be able to make a long-term commitment to address climate change.

In the UK, USA and here in Australia, hundreds of Transition Towns have started up – which are essentially a town or municipality of people who have decided to start the process of returning to a simpler more sustainable lifestyle. People nominate themselves to be leaders in certain areas – such as energy or transport or food. Those people then do their best to provide all the necessary information and assistance for everybody in the Town in their chosen area. For example, the people who are interested in energy would provide the information and perhaps organise discount rates for installing solar-panels, water tanks, implementing grey water systems, etc for the Town. We have a Transition Town in Victoria, which is in Bell, near Geelong – and the City of Darebin is considering becoming a Transition Town. Essentially the aim is to provide a smooth transition from our current standard of living to a sustainable standard of living.

Similarly, in the western suburbs, the Western Alliance for Greenhouse Action (WAGA) has been created which is an alliance of 7 Councils (and includes residents, universities and Toyota) that have decided to monitor their energy consumption to peak by the end of 2009 and reach carbon neutral status by 2020. They are committed to decreasing their consumption by fossil fuels and increasing their consumption of renewable energy every year to 2015 with an annual report of their current status.

In general, there is an increased interest in 'regreening suburbs' and providing small agricultural opportunities in the city (for residents to grow their own vegetables). Out of interest, residents in 'mixed use' areas with strip shopping and residential / commercial uses combined are on average 6kg lighter than residents in suburban residential cul-de-sac type areas with shopping centre provisions! We can change our individual values from being a consumer to being a provider – to potentially capture and reuse more water within cities and vegetate both horizontal and vertical plains e.g. in Germany floors within multi-storey buildings are dedicated to vegetable patches. We can also integrate water catchment systems within local municipalities to improve efficiencies and reuse of water.

In addition to the above considerations, the following ideas are put forward specifically for the transport sector:

The Victoria Transport Plan is not quite going to achieve what we need for climate change – we will need an 80% reduction in transport-based emissions by 2050 for any chance of survival. We can achieve this by increasing fuel efficiency, increasing vehicle occupancy, increasing fuel performance and decreasing carbon emissions.

Government has chosen to exempt petrol from the climate change tax for at least 3 years which does not seem like a step in the right direction. We need to make people accountable for their travel choices which could perhaps be done by a pricing reform similar to congestion charging, however we need to also accommodate the 'transport disadvantaged'.

As is the case in European and Middle Eastern countries, we need a mandatory fuel economy standard for vehicles to reduce our emissions.

We need to change our travel patterns and increase public transport, walking and cycling to be the key modes of transport.

Our public transport system isn't energy efficient at the moment – we need public transport vehicles to use renewable energy to supplement the efficient movement of people, and essentially government needs to operate our public transport system.

To do any of this, we need a long-term vision with a long-term commitment from government including infrastructure funding on a long-term basis.

We need to de-privatise public transport and invest in more incentive schemes for travel behaviour change.

We also need an increased focus in government to increase safety for walking and cycling to improve the number of trips by these modes.

Government is now starting to link land use planning and transport planning more closely with the development of Central Activities Districts and urban corridors which is a step in the right direction.

The current methods of governance essentially allowed developers to design our suburbs to a large extent despite climate change and public transport planning being included in the State Planning Policy Framework – as many developers do not follow the guidelines and override Council at VCAT. We need a policy change to make some standards not negotiable, and we also need a mass perception change to allow governments to compulsorily acquire land for rezoning to improve land use patterns in outer suburban areas (e.g. in Dandenong, government acquired residential and commercial properties to rezone and reuse the areas to fit in with the Central Activities District plan for Dandenong. Our current perceptions are that government only does this to build roads.)

It is essential to reform our land use patterns and implement low rise / linear residential land use along tram and bus routes with the Melbourne metropolitan area. If we implemented 4 – 6 storey buildings for 50m on either side of the bus and tram routes we could accommodate an extra 2 million people without exceeding our current urban growth boundary.

We can use 'greyfields' sites – existing areas within Melbourne which could be redeveloped to provide more sustainable housing and transport – rather than expanding out to 'greenfields' sites.

We can put freight into larger greener freight vehicles, or onto rail (which is currently high cost).

In summary, we don't have a long time to act – certainly our children will be seeing first hand the consequences of our actions today. As the economic climate changes and our global climate changes we need to start to think about our own future and what we can do to assure it!

Thankyou for your consideration,

Amy Stebbing