

Kierin Smart

From: Julie Downard <angulijulie@gmail.com>
Sent: Sunday, 25 March 2018 4:30 p.m.
To: Mailroom Mailbox
Subject: Submission to Environment Canterbury's Long Term Plan

Categories: Kierin

Summary of my main concern

I am alarmed that ECan does not have a programme detailed in the draft LTP to reduce carbon and methane output from Canterbury sources. ECan does not even have a programme to reduce greenhouse gas emissions from ECan operations.

This is totally unacceptable given that global warming is the greatest threat to the future of mankind and the earth's environment and a very grave threat to the people and the environment that ECan is charged, by law, to protect.

Why we are concerned

Since 2015 global warming has accelerated much faster than scientists had predicted. The disastrous weather patterns of the last two years are one result. These will get worse on an exponential basis.

The reason for the rapid recent acceleration of temperatures, forest fires, flooding, major storms, rising sea levels [sea levels rose twice as much in 2017 than in 2016], etc. is the feedback loops that have been triggered much sooner than scientists expected.

For instance, the Arctic warms twice as fast as the rest of the world. The dramatic loss of sea ice from the warmer temperatures [in the 2018 northern winter Arctic temperatures reached 35° C above their long term averages] changes the temperature differential between the equator and the Arctic. Weather patterns are determined by this temperature differential. In the last few years Arctic warming has directly caused the increase in the size and frequency of storms and other disasters.

Headlines in the last two months show how alarmed climate scientists are about the acceleration of temperatures and ice melting:

- "Arctic warming: scientists alarmed by 'crazy' temperature rises in winter"
- "Scientists Warn: February melting near North Pole 'Really extreme'"
- "Study: 'Amplified Warming has ended the era of stable climate'"
- "2017 was warmest year on record for oceans"
- "Greenland is burning"
- "Thousands of buildings in Siberia damaged by melting tundra"
- "Arctic and Greenland temperatures in February 2018 35C higher than normal"
- "20,000 scientists have now signed 'Warning to Humanity'"

The year 2020 is crucially important. When it comes to climate, timing is everything. According to an April report in the journal Nature (prepared by Carbon Tracker in London, the Climate Action Tracker consortium, the Potsdam Institute for Climate Impact Research in Germany and Yale University in New Haven, Connecticut), should emissions continue to rise beyond 2020, or even remain level, the temperature goals set in Paris become almost unattainable.

We are rapidly approaching the point of no return. If significant greenhouse gas emissions reductions are not in place by 2020 the world is on track to become uninhabitable by the end of this century, ie, 4° - 5° C above 1880 temperature levels. World temperatures were .52°C above 1880 levels in 2011. In 2017 they reached 1.2° C above 1880 levels.

What ECan can and must do

ECan's Long Term Plan takes us to 2028. On current trends world temperatures will likely have approached or exceeded 2° C above 1880 levels by 2028. Sea level rise around the Canterbury coast will likely be 5 or more centimetres above current levels. Fresh water aquifer replenishment is likely to suffer significantly because of changes in weather patterns. Droughts will become more common and last longer. Species biodiversity will decrease and much vegetation, particularly conifers and dry grasses, will be more susceptible to heat damage and fires [remember Port Hills fires in early 2017].

Around the world local authorities have picked up the challenge to reduce greenhouse gases (GHG) in their respective constituencies because sovereign governments are acting so slowly, or, as in the case of New Zealand, have in fact been increasing greenhouse gases. Christchurch City Council has been working steadily on reducing their council's GHG emissions, particularly CO2.

ECan is notable for not fulfilling it's responsibilities in respect to global warming emissions. By 2028 it will be far, far too late for action.

We must have action from ECan now.

Dramatic and substantial action is needed now by ECan, and included in the LTP, including:.

- Significant programmes to reduce ECan's operating emissions must be built into 2018's LTP.
- Funded and enforced criteria must be set for GHG reductions.
- Programmes to actively involve the public in reducing GHG emissions are vital and should be included in the LTP.

Therefore, I propose that:

- **An additional section be added to the LTP which includes a programme for phasing out carbon emissions from operations plus a significant reduction in methane emissions from agriculture over the 10 year term of the LTP.**
- **All decisions and actions by ECan during the 10 years of the LTP be evaluated in advance as to the reductions or increases in GHG emissions such decisions and actions could potentially create**

Yours sincerely
Julie Downard