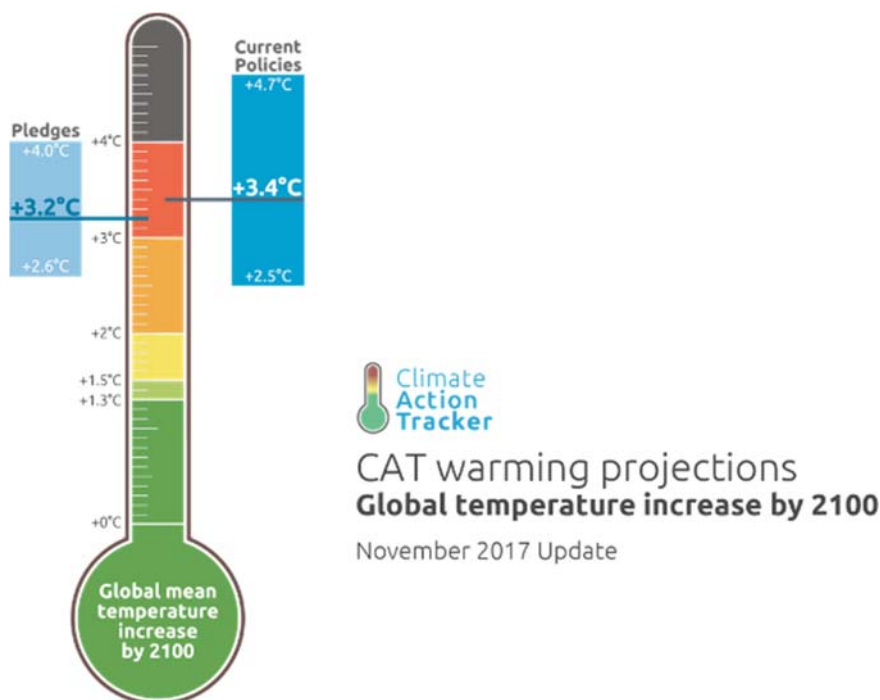


Why emissions reductions are urgent

It is not well understood, either in the general public or the parliaments, how difficult it will be to avoid the worst effects of climate change if we delay emissions reductions. Many think, erroneously, that achieving peak emissions in 2030 will have the same consequences as if they peak now. This is essentially a failure to understand stocks and flows. The impacts of climate change are a consequence of the atmospheric concentration of greenhouse gases (a stock) not emissions per year (a flow). As the atmospheric carbon outflow through photosynthesis and ocean absorption is very slow relative to the inflow, the longer that emissions continue to increase, the longer that atmospheric CO₂ concentrations will increase. Even if we eliminated all emissions today, CO₂ concentrations will remain high for millennia (Clark et al. 2016).

So are we to be saved by the Paris Agreement? According to the Climate Tracker¹ and other analysts the answer is no. The current pledges will take us to somewhere between 2.6°C and 4°C, while current policies do not even achieve the pledges.

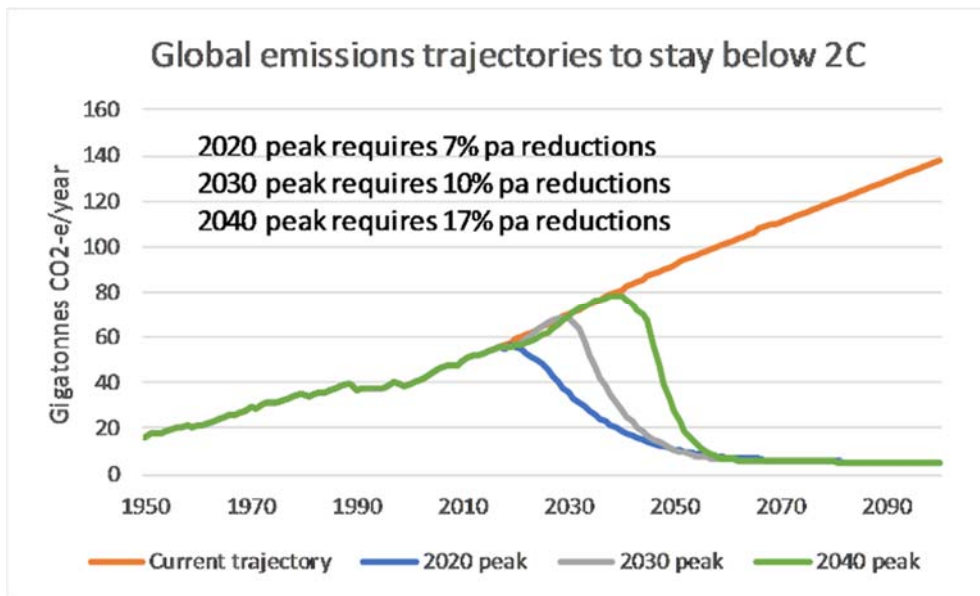


As illustrated in the graph below², delays in reducing global emissions make it increasingly difficult to remain below the 2°C threshold and avoid the most serious consequences of climate change - and it is even questionable whether 2°C will be sufficient (Schleussner et al. 2016).

If emissions had peaked in the year 2000, the transition away from fossil fuels would have been much easier. The delay means the annual rate of necessary emission reductions grows exponentially - if we wait until after 2030 it may not even be possible. Realistically, emissions need to peak and begin to reduce within the next five years or so for us to have any chance of limiting warming to 2°C.

¹ <https://climateactiontracker.org/>

² From the 'C-ROADS' model by Climate Interactive (<https://www.climateinteractive.org/tools/c-roads/>)



Despite this, the federal government has abandoned energy and climate policy and some politicians are calling for Australia to pull out of the Paris Agreement, arguing that what Australia does is irrelevant in global terms. However, Australia is in fact the eighteenth highest emitting country in the world, and has the second highest per capita emissions in the G20.



Clearly countries who don't reduce their emissions cannot expect anyone else to, and should therefore prepare their country for the worst effects of climate change. While climate denial remains a politically viable strategy nothing will change. The only way to make politicians act is to make it electorally necessary to do so. Politicians follow electors rather than the other way around, so there is an urgent need to publicly and assertively challenge climate denial with the overwhelming scientific consensus, and to spread awareness in the community.

There is a Global Climate Action Summit in San Francisco in 12th-14th September³ although we haven't heard much about it in Australia. The summit is intended to remind national governments of their

commitment to review their progress on Paris and 'Take Ambition to the Next Level'. In the lead up

³ <http://globalclimateactionsummit.org/>

to this summit there is also a global day of action called 'Rise for Climate' on Saturday 8th September – the details of Australian events are here <https://350.org.au/rise-for-climate-action/>. The focus of the 'Rise' events is a transition to 100% renewable energy and an immediate end to new fossil fuel projects. While this is necessary, it is also necessary to deal with the inevitable socio-economic and environmental consequences of climate change, even if we are successful in limiting warming to 2°C.

In Western Australia, the only state that doesn't have a net zero emissions by 2050 target or climate adaptation strategy, it is even more important to ensure the community and state government understand why reducing emissions is urgent.

References

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