

I write in support of localised power generation, micro-grids, battery storage and the need for concerted action on climate change. Between 1982 and 2012 I lived in a house with a stand-alone power system. Initially this system was powered by a reconditioned wind-lite generator which was eventually replaced by solar panels. The storage was composed of heavy, expensive, deep cycle lead acid batteries. [Link <http://petergardner.info/2015/11/using-battery-storage-in-the-bush-18-11/>] Almost all of the materials used in this system have been obsolete for some time, although as far as I am aware it is still functioning. The recent advances in solar and battery design and their reduction in cost is nothing short of miraculous.

Since moving to a retirement unit in town 4 kilowatts of solar panels were put on a roof reconditioned with reflective paint. Initially it was planned to use gas for cooking and hot water but it was decided to remain an all-electric house adopting energy efficient practices where possible and when affordable. These included electric heater to reverse cycle air con, electric hot water to heat pump and electric stove to induction cooktop. Now that our solar subsidy is gone we plan to purchase a substantial battery coupled with software to maximise the return on energy sold to the grid.

I have always been a strong supporter of decentralised power and renewable energy, but since 2008 almost entirely motivated by the climate emergency [<http://climateemergencydeclaration.org/openletter/#sthash.2jeDeXRY.dpuf>] we appear to be in. It is apparent now that our current climate extremes are performing closely to the predictions of the CSIRO and others in the late 80s. There is a pressing need for global emissions of greenhouse gases to be stabilised and then eventually reduced to something approaching pre-industrial levels of carbon dioxide. The first major step in this process is the replacement of all fossil fuel energy sources, including gas, with clean renewable energy. These include wind, solar and battery storage with other possibilities including tidal, wave, pumped hydro and geothermal in a decentralised system with micro grids.

There are only four possible actions with regards climate change – that it is happening or not and we either act or do nothing. Since scientific evidence is overwhelming that it is happening this leaves us with just two options. Of these “do nothing” is the path to catastrophic consequences. To paraphrase the noted barrister Julian Burnside <http://www.julianburnside.com.au/category/climate-change/> “If we can’t fix climate nothing else matters”.

*Peter Gardner*