

AN OPEN LETTER REGARDING THE 2015 INTER-GENERATIONAL REPORT AND GLOBAL WARMING

Signed by 64 Environmental and climate scientists

We the undersigned are concerned the 2015 Intergenerational Report underestimates the serious threat of global warming to future generations.

Based on the basic laws of physics, direct measurements, and empirical observations in nature, the current rise in atmospheric greenhouse gases by about 40 percent since the 19th Century is inducing a shift in the state of the atmosphere-ocean-land-ice sheets system, seriously endangering future generations, and indeed nature's life-support systems.

Our concern is based on the scientific peer-reviewed literature as summarised by the Intergovernmental Panel on Climate Change (IPCC) and on observations by the world's national science academies and geophysical research societies of leading nations, including Australia*

The current and projected trend in CO₂ from the 19th Century concentration of 280 ppm to the current 400 ppm, rising at more than 2 ppm per year, threatens to transform the planetary climate toward conditions where large parts of the continents become subject to droughts, fires and other extreme weather events. If this trend is allowed to continue low coastal and river valleys, where much of the world's population live and food supply comes from, would be inundated by rising sea levels.

At the current rates of CO₂ emissions by 2055, the projected date in the Intergenerational Report, CO₂ concentration would rise to about 480 ppm, threatening the Antarctic and Greenland ice sheets and approaching conditions that existed on the planet prior to about 2.6 million years ago, before the appearance of the genus *Homo*.

Australia has many excellent renewable and low-carbon energy resources and access to commercially available technologies that would enable Australia to transition to zero-carbon electricity within 2-3 decades, given the political will. The zero-carbon electricity system would be reliable, affordable and job-creating

We call on the Australian government, and indeed the governments of all nations, to reconsider the consequences of ongoing emission of greenhouse gases and, as a matter of urgency, promote much more rapid transition to non-polluting energy-generating methods.

*including NASA, NOAA, NSIDC, Hadley-Met, Tyndall, Potsdam, the World's academies of science and in Australia the CSIRO and BOM.

Signatories

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