CLIMATE CHANGE
ALSC POSITION

Readers may well ask what the formal position of ALSC is on global warming and climate change. In the first instance, one should recognize that the debate is about the possibility of permanent climate change with global warming, and not about annual weather cycles.

ALSC recognises most of the basic data – measured or quantified – claimed to be underlying global warming, but does not necessarily agree with the conclusions drawn from that data by climatologists.

The formal position of ALSC on global warming and permanent climate change is this:

- The use of fossil fuels, particularly coal, petroleum and gas, has continued to rise since the industrial revolution (nominally from 1850) as a consequence of the sharp, continuing increase in world population[1] and industrialisation to meet the demand of this population.
- Burning fossil fuels produces emissions of non-condensable greenhouse gases (NCGHG), especially carbon dioxide (CO2), which can be calculated according to the volumes of each type of fossil fuel burnt and released initially into the atmosphere, there to remain for some years, but would eventually dissipate.[2]
- The record of increasing concentrations of CO2 and like non-condensable greenhouse gases is well documented and not in dispute.[3]
- Water vapour is also a powerful GHG in the absorption of infra-red radiation (IRR), with an average atmospheric concentration of up to 10 times[4] that of CO2. It is condensable into clouds and individual molecules precipitate to earth after a relatively short time. However, it is continually generated and so maintains a relatively high level of atmospheric concentration. Note that water vapour exists as an invisible gas or condensed into the many types of clouds, which, together, some scientists (and ALSC) believe, are the primary agents controlling the Earth's temperature, not the NCGHGs.
- Average world surface temperatures appear to be increasing very gradually[5], for which the validity of the data base is still a bit suspect, although accurate satellite thermometry is helping to validate the record. It should be noted that temperatures around the world vary quite considerably according to latitude, geography and other factors. Consequently, each country should be concentrating on the validity of its own temperature change record. Most of the conclusions of the Intergovernmental Panel on Climate Change (IPCC) ae based on observations of North American and European surface temperatures.
- Climatologists claim a strong correlation between the atmospheric concentration of NCGHG (caused by the use of fossil fuels) and the increase in global surface temperatures, stating that NCGHGs, particularly CO2, comprise the Earth's 'thermostat', and that water vapour generated by surface temperatures is but a 'feedback' mechanism that enhances global warming. The dismissal by climatologists of any significant impact of water vapour as a driver of a global warming and permanent climate change, although many times a stronger GHG than CO2, is based on logical deduction only, for which there is no experimental proof.
- Renewable energy sources have a role to play in reducing NCGHG emissions. However, proponents rarely mention the downside like the extent of subsidies, the lifetime carbon footprint of solar arrays and wind turbines; the fact that the investment has to be repeated

[1] From 1.26 billion in 1850 to 8 billion in 2020 and going to 10.5-12 billion by 2200, depending on assumptions.

[2] Retention times of NCGHGs in the atmosphere is a debated and unsettled issue.

[3] CO2 concentration was 413 parts per million in 2020, ie 0.04 %.

[4] Atmospheric concentration of water vapour is in the order of 0.10% to 0.40%.

[5] About 0.017°C per annum

every 20-25 years (10 years for turbine blades), with a significant disposal problem, and that they are a blight on the landscape. The ALSC position is that subsidies for renewable energy, in the name of reducing NCGHG emissions, is an absolute waste of taxpayers' money, given that our total emissions are so miniscule[6] that they have and will ever have negligible effect on global warming let alone climate change.

- Deliberately phasing out export of coal from Australia would be economically irresponsible by any government. Exports and, hence production, should be allowed to respond to commercial forces of international demand, which is still increasing at some 10-12% per annum, due primarily to continuing high demand by China, India and third-world countries. Because of its high quality and relatively low-emissions rating, Australian coal production will be around and increasing for decades yet.
- Coal still accounts for some 70% of Australian domestic power generation. It will be many decades before renewable sources can, if ever, replace coal and gas-fired power stations in Australia.
- ALSC considers that, except for roof-top solar and possibly future wave-power generators, land-based, renewable sources of energy will eventually prove to be unsustainable due to reinvestment costs and that the world will need to resort to nuclear energy.[7]
- ALSC considers that the prevailing Australian political attitude of not wanting nuclear energy is absurd, given that it is safe, of long-life and has a relatively small spacial footprint, unlike solar and wind farms.
- There is a great deal of hyperbole at present from several quarters about Australia becoming a hydrogen fuel giant of the future. In the first instance, this cannot happen economically without astronomical amounts of renewable energy to power the process. The ALSC position is that there should be no government subsidies for the so-called 'green' energy and that the commercial sector should be encouraged to do the investing, if there really is such a great future to be had in hydrogen, as being promoted by rent-seekers already gathering and demanding massive government subsidies.
- That said, hydrogen, except that it is highly explosive, has distinct advantages as a fuel, both directly in gaseous form for domestic use and in fuel cells, already in existence and under development. Fuel cells have significant advantages over batteries in powering heavy, long-haul electric vehicles (EV) of the future.
- EVs have considerable advantages over those powered by internal combustion engines – in low operating GHG emissions and less vehicle maintenance[8] (at least until the expensive battery has to be replaced). Subsidies, in the name of reducing emissions in Australia is a waste of taxpayers' money. The significant financial assistance by some governments, like the ACT Green/Labor government, to buyers of EVs is absurd. It is obviously a gift to the wealthier individuals who can afford to buy an EV, but worse, any resultant emissions are negligible on a world scale. Therefore, these governments are spending your money to zero effect on global warming, let alone on climate change.

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Canberra, 18 December 2021

[6] Only1.06% of world emissions in 2020.

7 Note that commercial nuclear fusion reactors (like the sun), as opposed to the current fission reactors, are a long way off, if ever possible.

[8] Electric motors are so much simpler mechanically than internal combustion engines and more powerful, pound for pound.