8 April 2009

Mr John Hawkins
Committee Secretary
Senate Select Committee on Climate Policy

Dear Mr Hawkins,

I welcome the opportunity to make this submission to the Senate Select Committee on Climate Policy.

The purpose of the CPRS:

I take it to be axiomatic that the purpose of the Carbon Pollution Reduction Scheme is that stated in its title – namely to reduce the concentration of greenhouse gases (GHG) in the biosphere.

The reduction of GHG concentrations is necessary to reduce the grave risks that accompany unmitigated global warming. These risks include negative consequences both for the natural environment and for human societies.

Recent changes in the assessment of the risks of global warming:

Some effects of unmitigated global warming are contained in the Garnaut Report. (See Note 1, below.) This assessment of risks is in part derived from the October 2006 Review on "The Economics of Climate Change" for the British Government by the economist, Lord Nicholas Stern.

In March 2009 Lord Stern, addressing an international congress of climate change experts in Copenhagen, stated that *his 2006 Review had underestimated the risks of global warming*. He explained:

> *"The reason is that emissions are growing faster than we thought, the absorption capacity of the planet is less than we thought, the probability of high temperatures is likely higher than we thought, and some of the effects are coming faster than we thought." (See Note 2).*

A scientific consensus is building that we should aim to return to lower levels of atmospheric CO2 – not to the Garnaut targets of 550 or 450 parts per million, but even less than the present level of 390 ppm. According to leading European climate change scientists, only a return to pre-industrial levels of around 300 ppm may be safe.

The sooner and the faster we reduce emissions, the greater will be the cumulative, beneficial effects in the critical years ahead.

Australia's role in reducing global GHG emissions:

Global warming is a global problem, and all countries must play their part in reducing GHG emissions. But developed countries, which have benefited from early industrialisation and have caused most of the increase in atmospheric CO2 to date, have a special responsibility to contribute to the solution. (See Note 3.)

Australia is a wealthy, developed country with very high levels of *per capita* GHG emissions. With 0.3 per cent of the world's population, we contribute 1.5 percent of the world's annual GHG emissions.

But Australia could reduce world output of GHG by 5 or 6 percent – a really meaningful amount – by adopting a *3-point plan*, as follows:

- *moving to a zero net emissions economy at home*,
- *phasing out coal exports*, and
- *working with our neighbours to reduce the logging of forests* (particularly in Indonesia and PNG).

Not only would the adoption of such a plan make a direct and significant contribution to carbon pollution reduction globally, it would also influence crucial international discussions due to take place later this year.

To achieve a zero net emissions economy at home, renewable energy and energy efficiency are the keys. Modern electricity generation and distribution systems mix multiple sources of energy – wind, solar, biomass, geothermal – to meet base and peak loads. Dr Mark Diesendorf, in his book "Greenhouse Solutions with Sustainable Energy" (UNSW Press, 2007), shows how Australia's future energy needs can be met in an ecologically sustainable way without resorting to problematic "clean coal" or nuclear energy.

Unlike many other developed countries, Australia has bountiful natural energy resources. Of these resources, coal has been exploited most to date, but Australia's potential for exploiting its resources of solar power is in the same league. Although we are by no means the largest producer of coal in the world, we are the largest exporter. A decision by the Australian government to phase out the mining and exporting of coal would mark a real break with the past, and would have a significant effect on the development of a successor to the Kyoto Protocol.

Currently Indonesia and Papua New Guinea emit an estimated 2.7 Gton of CO2 equivalents per annum, mainly from the clearing and burning of native vegetation. These emissions are part of the short-term carbon cycle, as opposed to Australia's emissions – of approx 0.5 Gton per annum – which are mainly from the burning of fossil fuels. Nevertheless, working with our neighbours to reduce emissions by protecting native forests will reduce total global emissions in the short and medium term. Atmospheric CO2 concentration will therefore peak at a

lower level than might otherwise be expected, and this would lessen the likelihood of critical tipping points being reached in the coming decades. (See Note 4.)

Unlike many poorer countries, Australia has the scientific, technical, financial and logistical capacity to undertake the 3-point plan outlined above. And at the end of this process we would be wealthier than we are today.

Some problems of the CPRS in its present form:

1. The CPRS relies on market forces to influence behaviour. A market-based scheme holds out the promise of GHG reduction at least cost. But, in a matter as vitally important and time-critical as GHG reduction, we can't afford the very real risk of market failure.

So a market-based scheme needs to be complemented by traditional legislative provisions, rigorously enforced. Such provisions should phase out highly polluting activities like the burning of brown coal and the clearing of native forests, and should mandate both greater efficiency in energy usage and a steadily rising proportion of renewable energy in our electricity generation mix.

2. The CPRS provides subsidies and compensation from public funds for (a) high-emission companies exposed to competition in export markets, and (b) electricity utilities to compensate for business risks – risks they should have been aware of since 1990. (See Note 5.) The subsidies and compensation proposed are far too generous. Indeed, it can be argued that they are not warranted at all.

3. Indeed so much will be spent on life-support for obsolescent industries, and on compensation for households, that inadequate funds remain to support necessary CPR initiatives, including research and development in renewable energy.

4. The CPRS allows polluters to buy unlimited amounts of cheap carbon credits overseas. This could postpone for many years the conversion of Australia to a low carbon economy. Instead of gaining early-adopter benefits from this technological revolution in our economy, we become a follower nation.

5. The CPRS systematically negates the effects of actions that individual citizens, or groups of citizens may take to reduce their own GHG emissions.

Thank you for considering this submission. (See Note 6.) May I wish you well in your deliberations.

David C.B. Teather
Emeritus Professor

Notes:
(1) See the Garnaut Climate Change Review, Interim Report, February 2008, Table 1.
(2) As reported in the New York Times, 13 March 2009.
(3) See the discussion by Peter Singer in Chapter 2 of his book "One World: The Ethics of Globalization" (Text Publishing, Melbourne, 2002).
(4) Tipping elements are parts of the climate system which, through human interference, can change quickly and irreversibly. See www.pik-potsdam.de/news/press-releases/the-odds-of-tipping.
(5) In 1990 the First Report of the Intergovernmental Panel on Climate Change, set up by the United Nations Environment Program and the World Meteorological Office, reported that the threat of climate change was real and cited solid evidence about the hazards associated with GHG emissions. See also Singer (Note 3, above) particularly pages 38-39.
(6) Some of the material in this submission forms part of an article that I recently submitted to *The Canberra Times*.