# Inquiry into Nuclear Power Generation in Australia

Dr Ashley Clements
Inquiry Secretary
House Select Committee on Nuclear Energy
Department of the House of Representatives
PO Box 6021
Parliament House, Canberra ACT 2600

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Dear Dr Clements,

I appreciate the opportunity to submit to this inquiry. Firstly, to present my qualifications for being able to do so. I have been using radioisotopes throughout my career in agricultural research, from 1968. I therefore have first-hand awareness of the risks and safety precautions necessary in the handling of radioactive materials. I have lived in countries having nuclear power generation (Germany, China, India) for a cumulative 20 years and am therefore aware of the issues created by nuclear power in those countries. And for over 60 years I have been conscious of the sheer folly of human pursuit of nuclear weapons, and am highly grateful that Australia has not pursued such folly.

Other submissions to this enquiry elaborate the various reasons for not adopting nuclear power generation in Australia. I will not repeat them but just list my major reasons for opposing nuclear power generation in Australia, as follows:

- Cost – any serious analyses comparing life cycle costs of nuclear and renewable energy render nuclear energy economically unviable, e.g. CSIRO's GenCost Report 2024.
- A reason given for nuclear energy is that it provides baseload power that could replace coal-fired power. However, with the now rapid advance of battery technology backing up the now rapid roll-out of wind and solar power, the concept of baseload has now become redundant.
- Despite lessons from Chernobyl and Fukushima, safety risks remain, especially for novice players and in potential conflict zones (which is where Australia is heading in its unqualified support for US antagonism towards China).
- The nuclear waste dilemma for long lived radioisotopes is yet to be solved, anywhere in the world. Australia is yet to find a permanent storage repository for low level medical and research radioactive waste over 60 years of trying. Globally, no acknowledged secure storage facilities for high level waste (half-lives of millennia) exist – it is just placed in containers with a 30-year life expectancy for future generations to deal with.
- Nuclear power reactors need a continuous flow of water as a coolant, a likely challenge in southern Australia which is in the process of drying out due to climate change. Further, when the heated effluent is released back into the river, reservoir or sea it adversely affects the ecology (as I observed while living near the Rhine River, and a nuclear power station, in Germany in the early 1970s – a country which has now phased out of nuclear power due to acknowledgement of the problems it brings)
- Experience in countries having nuclear power indicates that it takes at least two decades from planning to commissioning for new nuclear power stations. A reduction in greenhouse gas emissions, as supposedly promised by nuclear power, are required immediately to address climate change and cannot be postponed into the late 2040s. Renewable energy has the capacity to do this provided investments in it are not diverted to alternatives like nuclear energy.

This final point provides the rationale as to why this nuclear power option is being proposed now – **to extend the life of fossil fuel industries**. There is a clear political and financial linkage between

proponents of nuclear power and the fossil fuel industries. Further evidence for this rationale comes from some of the statements of nuclear proponents. They are usually factually incorrect indicating that insufficient homework has been done. Proponents seem to be far less disciples of nuclear power than they are of extending the life of fossil fuel power.

Yours sincerely,

Dr Chris Johansen, Agricultural Scientist (retired)