

To Nuclear Fuel Cycle Royal Commission  
Comment on Tentative Findings

I note the following matters which I consider have not been adequately addressed in the tentative findings:

#### STORAGE OF WASTE

Clause 91 assumed that global use of nuclear energy will increase. It does not consider the possibility that nuclear energy will become redundant because of advances in renewable energy, or that nuclear fission will be replaced by fusion.

Granted high and intermediate waste exists and there is a need for safe storage, but in proposing to take only 13% of the world's waste, Australia would be hardly solving this problem. (Clause 88)

Probably waste can be safely transported under normal conditions but problems associated with fire and explosion have not been addressed. Also the findings only discuss in any detail management during the first hundred years, while significant radioactivity would continue for thousands of years.

#### GENERATION OF NUCLEAR ELECTRICITY

While the Commission does not recommend South Australia generate nuclear energy in the near future I consider the certain contentions, which I believe are open to question, if promoted, could prejudice the development of renewable technologies. These concern costs and carbon emissions of renewable technologies.

1. (49b) the contention that solar PV has had little effect on peak demand requirements
2. (54) Even with substantial reductions in cost renewables (along with storage ) will not provide the lowest cost mix of generation
3. (55b) Intermittency of remunerable cost not be adequately supported by cost-effective storage
4. (55c) transmission system augmentation for substantially greater wind generation and commercial solar PV more expensive than anticipated
5. (60c) battery system not yet cost competitive, pumped hydro may be viable in SA but presents significant siting and environmental challenges in new locations.
6. No analysis of a future NEM that examines total system costs based o a range of low-carbon energy generation options.

#### **Possibly Open to Challenge – The Energy Future (7)**

That nuclear power has GHG emissions equivalent to wind, solar PV and solar concentrated solar thermal. However, this modelling was undertaken by the National Renewable Energy Laboratory in the USA and used by the IPCC.