

Nuclear Fuel Cycle Royal Commission
GPO Box 11043
Adelaide SA 5001

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Nuclear Fuel Cycle Royal Commission Tentative Findings

The Australian Energy Council (the Energy Council) welcomes the opportunity to make a submission to the Nuclear Fuel Cycle Royal Commission (the Royal Commission) on their Tentative Findings.

The Energy Council is the industry body representing 22 electricity and downstream natural gas businesses operating in the competitive wholesale and retail energy markets. These businesses collectively generate the overwhelming majority of electricity in Australia and sell gas and electricity to over 10 million homes and businesses.

The Australian Energy Council has welcomed the tentative findings of the Royal Commission into the Nuclear Fuel Cycle. The modelling carried out for the Royal Commission indicates that nuclear energy is not likely to be commercially viable under the existing market framework, but that it has the potential to be an integral part of Australia's energy system as we shift to a low greenhouse gas emissions future.

Open to all technologies

The Energy Council considers that efficiently transforming the South Australian energy sector to lower emissions while also maintaining energy security over the longer term will require many fuel and technology solutions. The Energy Council is a fuel and technology neutral organisation. As such we do not support either picking winners or ruling out particular options. Rather, energy security is enhanced when industry has a wide menu of options from which to find the best solutions to meet the community's needs. In the findings the Royal Commission states:

Nuclear power may be necessary, along with other low-carbon generation technologies. It would be wise to plan now to ensure that nuclear power would be available should it be required.

In this context, the Australian Energy Council is supportive of keeping all options open, including nuclear.

South Australian Energy Market

South Australia is now sourcing around 39 per cent of its electricity from intermittent sources, mainly wind and solarⁱ. Although wind and solar are contributing to reducing the State's greenhouse emissions this means that South Australia is becoming increasingly reliant on a narrower range of mostly intermittent generation sources to meet its energy needs.

The recent Australian Energy Market Operator (AEMO) and ElectraNet *Update to Renewable Energy Integration in South Australia* reportⁱⁱ found that there was increased risk of reliability issues in South Australia as a result of its changing power supply. This is characterized by high levels of wind and solar energy and consequently lower levels of dispatchable synchronous generation, which has reduced the South Australian grid's ability to maintain security of supply when the Heywood interconnector is not available and to manage frequency fluctuations. Furthermore a case study by Deloitte Access Economics *Energy markets and the implications of renewables South Australia*ⁱⁱⁱ last year also warned South Australia faced higher electricity prices and also highlighted the increased reliability risk from being at the leading edge of integrating intermittent renewable energy into the grid.

Regulatory framework

Given there are long lead times associated with developing nuclear power plants, the Energy Council believes there is merit in pre-emptively having a regulatory framework developed in some form. Despite the costs associated with nuclear energy, financing nuclear power investments could be made easier in the future with stable government policies and clear regulatory regimes.

The Energy Council therefore believes it is important to keep all options open, including nuclear power, as South Australia does not want to obstruct its ability to reach the zero emissions target while maintaining a reliable energy supply and moderating the impact on energy prices.

Yours sincerely,

Panos Priftakis
Policy Adviser
Australian Energy Council

ⁱ Energy Supply Association of Australia, 2015, "Fact Sheet: Renewable Energy in Australia, How do we really compare?"

ⁱⁱ AEMO and ElectraNet, 2016, "Update to Renewable Energy Integration in South Australia", February 2016

ⁱⁱⁱ Deloitte Access Economics, 2015, "Energy markets and the implications of renewables South Australian case study", << <http://www2.deloitte.com/au/en/pages/economics/articles/energy-markets-implications-renewables-sa-case-study.html> >>