

## Examine SA's shameful nuclear legacy

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The first test with Premier Jay Weatherill's proposed Royal Commission into nuclear issues comes with his statement that it will be carried out by independent experts. Is that what he really intends? Or does he plan a re-run of the Switkowski commission established by the Howard federal government in 2006? That commission was comprised entirely of "people who want nuclear power by Tuesday" according to comedian John Clarke.

The Premier wants to avoid scrutiny of the uranium mining industry, saying the Royal Commission "will concentrate on the other elements of the fuel cycle – enriching, power and the storing of nuclear waste". But the uranium industry needs serious scrutiny. The environmental legacy needs scrutiny. The Olympic Dam mine's wide-ranging exemptions from environmental, Aboriginal heritage and freedom-of-information laws needs scrutiny.

And the contentious choice of uranium customer countries needs scrutiny – South Australia sells uranium to nuclear weapons states, dictatorships, and countries refusing to sign the Comprehensive Test Ban Treaty. Now the major parties want to sell uranium to India, a country actively expanding its nuclear weapons arsenal that refuses to sign the Nuclear Non-Proliferation Treaty.

If Premier Weatherill believes he has nothing to hide, he will include uranium mining in the Royal Commission's terms of reference.

Uranium enrichment will be included in the terms of reference. The hope is that the pitiful revenue from uranium exports (0.2 per cent of national export revenue) could be boosted by a value-adding enrichment industry. But the Royal Commission will soon learn that there is surplus enrichment capacity globally and it is a non-starter in Australia. Nuclear lobbyists claim that an enrichment plant in Australia would be well placed to supply nuclear power plants in South-East Asia. But there are no nuclear power plants in South-East Asia.

For the past 10 years we've been fed rhetoric about the global nuclear power renaissance – but the number of power reactors has actually declined over the past decade, from 443 to 437. Steve Kidd, who worked for the World Nuclear Association for 17 years, states that the "picture of the current reactors gradually shutting down with numbers of new reactors failing to replace them has more than an element of truth given the recent trends". *Nuclear Engineering International* recently reported: "The US nuclear power industry geared up a decade ago for a nuclear renaissance that did not happen and is not likely to happen." The European Commission forecasts that nuclear capacity in the European Union will decline from 131 gigawatts in 2010 to 97 gigawatts in 2025.

Germany's conservative government announced a phase-out of nuclear power in the aftermath of the Fukushima disaster, with the last reactor to be shut down in 2022. In France, the lower house of Parliament voted last year to cut nuclear's share of power generation from 75 per cent to 50 per cent by 2025. Post-Fukushima, all 48 of Japan's nuclear reactors are shut.

Nuclear power is the one power source subject to a "negative learning curve" – it is becoming increasingly expensive. Capital cost estimates for two planned reactors in the

UK range from A\$31.1 billion up to the European Commission's estimate of A\$47.5 billion.

The nuclear lobby is promoting so-called Small Modular Reactors (SMRs) that might be suitable where large reactors are impractical. But Thomas Overton, associate editor of POWER magazine, wrote in an article last year: "At the graveyard wherein resides the 'nuclear renaissance' of the 2000s, a new occupant appears to be moving in: the small modular reactor (SMR). ... Over the past year, the SMR industry has been bumping up against an uncomfortable and not-entirely-unpredictable problem: It appears that no one actually wants to buy one."

Mr Weatherill says "storing of nuclear waste" will be on the Royal Commission's agenda. South Australians fought hard to defeat Canberra's proposal for a national dump for low-to medium-level waste – so an international high-level nuclear waste dump is a non-starter.

The Premier says the Royal Commission will not be used to "look backwards at things that have gone wrong." But failing to learn from the mistakes of the past makes it all the more likely that they will be repeated.

There have been four "clean-ups" of the Maralinga nuclear test site. Just 15 years after the latest "clean up", 19 of the 85 waste burial pits have been subject to erosion or subsidence. The half-life of plutonium-239 is 24,100 years.

At Radium Hill in the far east of the state, maintenance of 400,000 tonnes of radioactive tailings is required because of ongoing erosion. The contaminated Port Pirie Uranium Treatment Complex was closed in 1962 and the site still hasn't been cleaned up.

South Australia has a shameful nuclear history and the Royal Commission must be allowed to investigate it.

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