

Attention: Environment and Communications Legislation Committee  
Re: Environment and Other Legislation Amendment (Removing Nuclear Energy Prohibitions) Bill  
2022

G'day,

I don't want to give this nonsense too much attention, but will just briefly share my opinion.

This bill has no merit, will get no traction, and I suspect has only been presented in an attempt to spoil or distract from more realistic energy reform.

Senator Canavan's second reading speech claims:

*"This ban was introduced via a Greens amendment in the Senate on 10 December 1999. There was less than 10 minutes of debate on the matter."*

I think perhaps the Senator is confusing the late amendments to the ARPANS bill in 1998, with the corresponding clauses to the EPBC in 1999. Nonetheless, the reference to 'less than 10 minutes of debate' wilfully ignores the considered determination of many relevant formal inquiries since, including the 2019 Inquiry into the prerequisites for nuclear energy in Australia, and South Australia's 2015 Nuclear Fuel Cycle Royal Commission.

But most notable of previous investigations is the former Howard government's UMPNER inquiry, which applied considerable resources and expertise, led by nuclear physicist Ziggy Switkowski, to explore opportunities in nuclear industries, predicated on removing the legislated prohibitions.

This expansive inquiry, established by a pro-nuclear PM and headed by a nuclear physicist who stood down from the chair of ANSTO for the duration, was given every encouragement to conclude that there was indeed opportunity in removing the prohibitions. Yet the decidedly pro-nuclear board reluctantly concluded that Australia had missed the boat. Nuclear power might once have been a good idea (they reckoned), but these days, it's too expensive to build and too slow to deploy, with too many better options available.

As Senator Canavan acknowledges:

*"Nuclear plants are generally characterised by large capacity and output, high capital cost, and long construction times"*

We would do well to recognise that the disqualifications of high cost and long latency should be expected to be compounded by Australia's lack of necessary infrastructure (such as supporting industry and regulatory infrastructure), experience (we haven't made many mistakes yet) and expertise (workforce starting from scratch).

The Senator urges us to ignore the reality of nuclear's status as the slowest and most expensive form of electricity generation. But at the same time invites us to recognise that nuclear reactors are "carbon-free", with "almost zero emissions to air from their operation".

Even if we set aside the full life-cycle costs of the uranium fuel chain, these two submissions remain incompatible. If we are indeed motivated to pursue carbon free, low emissions electricity production to minimise the scope of global climate change, we most certainly should be prioritising

those options which can be most efficiently deployed. Nuclear plant construction has not only long lead times, but significant industrial bottlenecks that mitigate against scaling. As the Senator acknowledges, these detriments in turn amount to high capital cost. Once we are ready to invest in new energy technologies as part of a plan to minimise the inevitable harms of climate chaos, we should be looking towards investments that are least cost, and most amenable to rapid scaling.

The chaotic climate events that have punished Australia in recent years demand urgent and effective action. That urgency disqualifies the most expensive and slowest response. In this way, expense is not simply a consideration for investors, and the imperative to better address carbon pollution is a strong argument against nuclear power.

As elsewhere, we should guard against reducing all environmental management concerns down to the single measurement of atmospheric carbon. Yes, it is imperative that we better manage carbon pollution in order to avert the worst threats of climate chaos. But no, that does not license us to ignore other conservation responsibilities and environmental harm.

The nuclear fuel chain presents harm both before and after the reactor. At the end of the chain we have the intractable problem of long lived waste which will remain an environmental hazard far beyond the imaginable future. And at its beginning, we have the localised impact of uranium mining.

Here in the NT we are still pouring \$\$multi-billions into unresolved rehabilitation challenges at the legacy Rum Jungle sites. The pits at Rum Jungle were operated by the Atomic Energy Commission, to supply the British weapons program, from 1954 to 1971. Inadequate decommissioning saw the downstream of the Finnis River rendered devoid of life. Now, more than fifty years later, and after successive rehabilitation attempts, we are in the midst of yet another unprecedented and very expensive effort to address ongoing issues with groundwater, waste piles and abandoned pits.

Certainly the management standards at Rum Jungle were far lesser than we would tolerate today. Nonetheless that example shows us just how badly things can go wrong at a poorly managed uranium mine.

Counterpoint being the recently retired Ranger Uranium Mine, whose situation in World Heritage listed Kakadu National Park has guaranteed the project greater scrutiny than any other uranium mine in Australia. Despite the large sums devoted to the environmental management of uranium in Kakadu, both by the operators and the Commonwealth, this mine was subject to literally hundreds of recorded environmental incidents over its 30+ years of operation. And despite being subject to an unprecedented rehabilitation program - driven by unparalleled objectives, a very large rehabilitation bond and ongoing dedicated Commonwealth scrutiny – that rehabilitation is today running well behind schedule and well above budget.

These two extreme examples underscore the fact that producing nuclear fuel for energy production comes at significant environmental cost and risk.

I find that supporters of this Bill are unrealistically optimistic, grossly overstating the likely future for fission power.

Senator Canavan tells us

*“There are 54 nuclear power stations under construction”*

without enumerating the number slated for decommissioning, or subject to extraordinary license extensions to prolong their retirement.

Senator Canavan reports:

*“Over the next 30 years, the International Atomic Energy Agency predicts that global nuclear power capacity could increase by 80 per cent”*

but neglects the detail that their projections for Oceania range from zero, through zero, to a most optimistic 2%.

I note the Senator is hopeful regarding developments with Small Modular Reactors. I remember hearing similar hopes during the uranium rush of the late 90s / early 2000s, as exploiters were positioning to capitalise on renewed demand anticipated to arise from the sunset of strategic arms reduction. I urge anyone seriously considering the risks and costs of nuclear power reactors to do so on the basis of the record of those reactors which are currently available, rather than the promises of those which are hoped to eventuate.

This consideration must prioritise the unresolvable challenge of long-lived nuclear waste. After literally decades of official expert investigation, Australia’s approach to nuclear waste remains targeting a remote location with a vulnerable community in the hope that brute force can impose a ‘solution’ where science and democracy have otherwise drawn short. The farce that has been the Commonwealth’s attempt to impose unwanted unmanageable wastes on a remote Indigenous community has failed in South Australia, failed in NT, and is just as likely to fail again in SA. Even if this brute force approach does prevail, that’s just interim storage: by definition, the best idea the Commonwealth has for dealing with legacy wastes is to store it somewhere for a few hundred years, in the hope that future generations might stumble on a better approach.

The search for a Commonwealth nuclear waste facility was driven by licensing requirements of ARPANSA for OPAL, the replacement reactor at Lucas Heights. The regulator’s license for this small research reactor required substantive progress towards a national nuclear waste facility. It is highly unlikely that this same regulator would pursue a lesser standard for licensing any nuclear power reactor, particularly given that the volume of wastes would be higher than for the small research reactor. It would be highly irresponsible and wrong-headed to remove the prohibition while the decades-long quest for finding somewhere else to dump the nuclear waste remains unresolved.

In fact, the two appear to work against one another. Nuclear power is unlicensable in the absence of an interim waste facility. And assent to siting a nuclear waste dump is untenable in the context of unbounded waste. A fundamental principle of responsible waste management is minimisation. Those communities who might entertain the possibility of hosting a Commonwealth facility would be deterred by prospect of widespread deployment of new nuclear power reactors across Australia. In this way, the Bill acts as a disincentive to those who might consider a role in contributing to responsible management of existing legacy wastes.

I note the Senator’s claim that:

*“Nuclear power is safe. Nuclear energy has resulted in far fewer deaths than that from dam failures, oil rig explosions and even, on some measures, the number of people that fall when installing solar panels”.*

I despair because this reframing seems immune to rational interrogation.

I invite the inquiry to consider Fukushima. I visited in January 2012 as a participant in the first international civil delegation into the exclusion zone. While in Japan I met many locals whose lives were dramatically upended by nuclear contamination from the triple disaster. Local farmers who had to destroy livestock. Young people forced to flee, who now feared they could never start a family due to concerns over genetic contamination. Families split, so that fathers could keep working in the prefecture while their children went to live elsewhere.

Nuclear power is unsafe, and the great harm that a reactor disaster can present can permanently impact hundreds of thousands of lives without registering a single death.

I urge the Committee to reject this Bill outright, and I encourage its sponsors to find something better to do with their time.

Justin Tutty  
(NT)

Refs:

2019: Inquiry into the prerequisites for nuclear energy in Australia  
<https://www.aph.gov.au/nuclearpower>

2016: SA Nuclear Fuel Cycle RC  
<http://nuclearrc.sa.gov.au/>

2006: Uranium Mining Processing and Nuclear Energy Review  
<https://catalogue.nla.gov.au/Record/3960972>