



DON'T NUKE THE CLIMATE AUSTRALIA

Submission Guide: 2022 Senate Inquiry into Nuclear Power

Background information on the bill to remove the nuclear prohibition:

Since 1999 two federal laws have prohibited domestic nuclear power in Australia. As part of the Coalitions push to promote nuclear power – and delay effective climate action – Matt Canavan has introduced a Bill to remove these prohibitions.

This Bill – the Removing Nuclear Energy Prohibitions Bill – has now been referred to the Senate's Environment and Communications Legislation Committee for inquiry.

We are concerned that further nuclear promotion risks delaying the action we need to address the challenges – and maximise the opportunities – of meaningful climate action.

It is important to get lots of submissions to the Senate Inquiry to show that nuclear power is contested and that Australians support an energy future that is renewable, not radioactive.

Deadline for submissions: 12 December 2022

Submit to: Committee Secretary, Senate Standing Committees on Environment and Communications
Email: ec.sen@aph.gov.au

- [the proposed Bill to remove the prohibitions on nuclear power](#)
- [First reading speech of the Bill](#)
- [Seconding reading speeches for the Bill](#)

What your submission might say

(Feel free to copy the comments below, and please add your own comments)

Australia needs effective climate action but nuclear power would slow the transition to a low-carbon economy. It would increase electricity costs and unnecessarily introduce the challenges and risks associated with high-level nuclear waste management and the potential for catastrophic accidents, with profound intergenerational implications for Australians.

ECONOMICS

Since 2010, the cost of wind and solar PV has decreased by 70–90% while nuclear costs have increased by 33%. Nuclear power is the one energy source with a 'negative learning curve' – it has become more expensive over time.

Lazard investment firm provides these figures in its October 2021 report on 'levelised costs of electricity':

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| • Nuclear | US\$131–204 (A\$196–305) |
| • Wind – onshore | US\$26–50 |
| • Solar PV – utility scale | US\$28–41 |

Every power reactor construction project in Western Europe and the US over the past decade has been a disaster: True costs have exceeded company and government estimates by \$10 billion or

more for all these projects, and delays range from 7 to 13 years. Unsurprisingly, few new reactors are being built.

There is no economic case for nuclear power in Australia. The July 2022 CSIRO-AEMO *GenCost* report showed that nuclear power is nowhere near being competitive with renewables. The report provides these 2030 cost estimates for Australia:

- Nuclear (small modular): A\$136-326 / MWh
- 90 percent wind and solar PV with integration costs (transmission, storage and synchronous condensers) necessary to allow these variable renewables to provide 90 percent of electricity in the National Electricity Market: A\$61-82 / MWh.

NUCLEAR WASTE

There is no proven solution for managing high-level nuclear waste produced in power reactors. No operating deep underground repository for high-level nuclear waste exists.

There is one deep underground repository for long lived intermediate-level nuclear waste – the Waste Isolation Pilot Plant (WIPP) in the US state of New Mexico. In 2014, a chemical explosion ruptured one of the nuclear waste barrels stored underground at WIPP. This was followed by a failure of the filtration system meant to ensure that radiation did not reach the outside environment. Twenty-two workers were exposed to low-level radiation. WIPP was closed for three years. A deeply troubling aspect of the WIPP problems is that complacency and cost-cutting set in within the first decade of operation of the repository.

TOO SLOW

Nuclear power is slow to develop, often facing time delays and cost blow outs. In Australia this would be amplified by the lack of a skilled workforce. Taking into account planning and approvals, construction, and the energy payback time, it would be a quarter of a century or more before nuclear power could even begin to reduce greenhouse emissions in Australia ... and then only assuming that nuclear power displaced fossil fuels.

So nuclear power clearly isn't a short-term option or a 'bridging' technology to ease the shift from fossil fuels to renewables.

'ADVANCED' NUCLEAR POWER

'Advanced' or 'next generation' technology that the industry promotes is not new and not in commercial deployment. So-called Small Modular Reactors are not commercially available and may never be ... and they would in any case be vulnerable to all the problems and risks of large reactors.

CLIMATE THREATS

Nuclear power plants are vulnerable to threats which are being exacerbated by climate change. These include dwindling and warming water sources, sea-level rise, storm damage, drought, and jelly-fish swarms. Nuclear engineer David Lochbaum states: "You need to solve global warming for nuclear plants to survive."

CLIMATE COUNCIL

In 2019, the Climate Council, comprising Australia's leading climate scientists and policy experts, issued a policy statement concluding that nuclear power plants "are not appropriate for Australia – and probably never will be".

The Climate Council statement continued: "Nuclear power stations are highly controversial, can't be built under existing law in any Australian state or territory, are a more expensive source of power than renewable energy, and present significant challenges in terms of the storage and transport of nuclear waste, and use of water".

NUCLEAR WEAPONS AND PRE-DEPLOYED MILITARY TARGETS

Nuclear power programs have provided cover for numerous weapons programs and an expansion of nuclear power would worsen the situation. Former US Vice President Al Gore neatly summarised the problem: "For eight years in the White House, every weapons-proliferation problem we dealt with was connected to a civilian reactor program. And if we ever got to the point where we wanted to use nuclear reactors to back out a lot of coal ... then we'd have to put them in so many places we'd run that proliferation risk right off the reasonability scale."

Nuclear reactors are pre-deployed military or terrorist targets. The current situation in Ukraine illustrates the risks: electricity supply necessary for reactor cooling has been repeatedly disrupted by military strikes, posing serious risks of nuclear core meltdowns.

Prior to Russia's recent attack on Ukraine, there have been numerous military attacks on nuclear plants. Examples include Israel's destruction of a research reactor in Iraq in 1981; the United States' destruction of two smaller research reactors in Iraq in 1991; attempted military strikes by Iraq and Iran on each other's nuclear facilities during the 1980–88 war; Iraq's attempted missile strikes on Israel's nuclear facilities in 1991; and Israel's bombing of a suspected nuclear reactor in Syria in 2007.

THE FUTURE IS RENEWABLE, NOT RADIOACTIVE

The federal Department of Industry, Science, Energy and Resources expects 69% renewable supply to the Australian National Electricity Market by 2030. The Albanese Labor government's target is 82% renewable supply by 2030. South Australia has already reached 67% renewable supply and will comfortably meet the target of 100% net renewable supply by 2030.

Nuclear power could not in any way facilitate Australia's energy transition – it could only delay the transition and make it more expensive and contentious. Nuclear power would unnecessarily introduce risks of catastrophic nuclear accidents and military or terrorist attacks. It would inevitably bequeath future generations with streams of high-, intermediate- and low-level nuclear waste.

We urge all politicians and political parties to focus on the transition to a low-carbon economy and to reject nuclear power because it is too slow, too expensive, too dangerous, and those promoting it are mostly the same people trying to slow and derail the transition to a low-carbon economy.

More useful resources

- <https://nuclear.foe.org.au/climate/>
- <https://nuclear.foe.org.au/power/>
- <https://nuclear.foe.org.au/economics/>
- Why 'next-generation' nuclear is not a credible energy solution, <https://www.acf.org.au/wrong-reaction>