



Nuclear Power Cannot Solve the Climate Crisis

Slow: The industry does not have the capacity to rapidly expand production. In Australia, it would take 5–10 years of planning before reactor construction could begin, then 10 years to build a reactor, then another 6 or so years to pay back the energy debt from construction. It would take at least 20 years before nuclear power could even begin to help reduce emissions. Globally nuclear reactors new builds are notorious for being behind schedule and over budget.

Dangerous: In addition to the very real danger of a nuclear reactor meltdown - as the world has witnessed at Fukushima, Chernobyl and Three Mile Island there are other dangers. Nuclear power has almost always been linked to a nuclear weapons program. Doubling nuclear output by the middle of the century would require the construction of 800– 900 reactors to replace most of the existing cohort of reactors and to build as many again. These reactors not only become military targets but they would produce over one million tonnes of nuclear waste (in the form of spent fuel) containing enough plutonium to build over one million nuclear weapons. **“On top of the perennial challenges of global poverty and injustice, the two biggest threats facing human civilisation in the 21st century are climate change and nuclear war. It would be absurd to respond to one by increasing the risks of the other. Yet that is what nuclear power does.”** Dr Mark Diesendorf

Ineffective: The 2006 Switkowski report found that building 12 reactors in Australia would reduce emissions by 8% if they replaced coal-fired plants, yet reductions ten times greater are required. Doubling global nuclear power output at the expense of coal would reduce emissions by just 5%. The Switkowski report states that nuclear power is three times more greenhouse intensive than wind power. Nuclear power is far more greenhouse intensive than many energy efficiency measures. Therefore, displacing renewables and energy conservation with nuclear power is not an effective response to climate change, as explained by US physicist Amory Lovins: “If climate is a problem, we need the most solution per dollar and the most solution per year. We can get two to 10 times more coal displaced per dollar buying stuff other than nuclear. Every time I spend a dollar on an expensive solution I forgo a lot more that I could have bought of a cheaper solution.”

Dirty: Reactors produce high level radioactive waste in the form of spent nuclear fuel. No country has established a repository for high level nuclear waste from nuclear power. Australia’s own battle to store low and intermediate level waste has been ongoing for 30 years and there is still no agreed solution in site. It would be deeply irresponsible to pursue nuclear power without first addressing the long term management of high level inter-generational radioactive waste.

Thirsty: In the face of unpredictable rainfall and drought we cannot afford to go nuclear:

Water consumption of different energy sources	L/kWh
Nuclear	2.5
Coal	1.9
Oil	1.6
Combined Cycle Gas	0.95
Solar PV	0.11
Wind	0.004

Expensive:

According to the World Nuclear Industry Status Report the cost of generating solar power ranges from \$36 to \$44 per megawatt hour (MWh), onshore wind power comes in at \$29 –\$56 per MWh. Nuclear energy costs between \$112 and \$189.



Nuclear Power Ban: under threat



Nuclear power in Australia is prohibited under the Environmental Protection and Biodiversity Conservation (EPBC) Act 1999. In 2020 there is a review of the EPBC Act & there is a strong push from the nuclear industry to remove the following section of the Act:

Why we should keep the ban

Nuclear power is dangerous, expensive, unpopular, and poses unresolved radioactive waste, nuclear weapons proliferation and security risks. The EPBC ban reflects these risks and is a prudent protection that should be retained.

Nuclear power is a distraction we cannot afford:

Removing the ban would encourage nuclear power companies to seek the development of nuclear power projects in Australia. This means putting forward proposals, environmental assessments, community consultation, writing and developing laws to regulate this new and extremely dangerous sector and establishing laws and systems for managing high level radioactive waste (we are still yet to identify a solution for managing Australia's low and intermediate level radioactive waste). Regulating this activity would require significant government resources, cause extensive division and disruption to targeted communities, and divert attention and resources away from addressing the energy and climate crisis Australia is facing.

Our future is renewable not radioactive: Renewable energy is affordable, low risk, clean and popular. Nuclear is simply not. We are facing a climate emergency, we must act. We do not have time to be distracted with old, dangerous, expensive, slow and inflexible energy options like nuclear. Renewable energy can be rolled out quickly, more cheaply, with less water requirements, and without lasting waste and weapons proliferation implications.

Make a submission to keep the ban:

- Via the Department: make a submission using the online form here. www.environment.au.citizenspace.com/epbc-review/epbc-act-review-submission-discussion-paper/consultation/
- Via email: epbcreview@environment.gov.au
- Via post: EPBC Act Review Secretariat, Department of the Environment and Energy. GPO Box 787, CANBERRA ACT 2601.

The committee ask that you complete and submit this cover page with any submission via e-mail or post. All submissions that include this cover sheet will be considered by the review.

EPBC Act 1999 section 140A No approval for certain nuclear installations The Minister must not approve an action consisting of or involving the construction or operation of any of the following nuclear installations: (a) a nuclear fuel fabrication plant; (b) a nuclear power plant; (c) an enrichment plant; (d) a reprocessing facility.

The ban reflects public sentiment:

The EPBC Act ban, and the ban on nuclear power through the Australian Radiation Protection and Nuclear Safety Act 1998 reflects public sentiment. There have been numerous debates, inquiries, investigations into nuclear power that have all identified that a) nuclear power is too expensive b) a prerequisite for nuclear power is broad public support, and there is none. This is clear through the support for the joint statement opposing nuclear power in 2019 from organisations representing millions of Australians.

www.dont-nuke-the-climate.org.au