

Nuclear is not an option in Australia's transition away from fossil fuels:

An EcoNetwork Port Stephens' position statement

EcoNetwork's position on nuclear energy is based on information from the CSIRO and other sources. It was developed in consultation with affiliates and members.

EcoNetwork does not believe that nuclear energy is a viable solution to the transition away from fossil fuels for Australia, for the following reasons:

1. Too expensive

Nuclear is currently the most expensive new-build electricity generation technology, particularly compared to renewables. Government subsidies funded by the taxpayer would be required over the long term. CSIRO estimates a capital cost of \$31,000 per kW, which means that a small reactor would cost around \$9 billion. By contrast renewables would cost between \$3,000 and \$6,000 per kW. The latest nuclear projects in the United Kingdom have had major budget blowouts and extensive delays.

2. Too dangerous

The risk of accidents is high with low probability but severe outcomes that could be catastrophic, especially given that the reactors would be near population centres. There are very significant additional problems with decommissioning and storing radioactive nuclear waste for thousands of years. There is no national or international program to dispose of waste of this magnitude.

3. Too slow to plan and build

Lengthy periods for certification, planning and construction mean that nuclear would take 15 years or more to be deployed, which is too late to play a serious role in near future emissions reduction.

4. Lack of expertise

The absence of a local nuclear industry means Australia would initially need to rely on offshore construction and operation experience. Any construction plans assume that qualified contractors are available.

5. Too close to local communities

Nuclear projects in Australia have not undergone a local development approvals process. Reactors would most likely be placed in built-up and industrial areas that are close to population centres. Advocates for nuclear would need a mandate from local constituents to have it in their electorate.

6. Legally prohibited

Nuclear power generation is prohibited in Australia under federal and state laws. Proponents would need to demonstrate a suitable supplier of refined uranium and the likely cost.

7. Refining uranium

While low grade radioactive uranium is available in Australia, there are obstacles and cost to obtaining refined uranium of a suitable grade to use in a reactor. Refining in Australia is constrained by international treaties.

References

The question of nuclear in Australia's energy sector

<https://www.csiro.au/en/news/all/articles/2023/december/nuclear-explainer>

Is nuclear power a credible option for Australia?

<https://research.unsw.edu.au/people/dr-mark-diesendorf>

Greenpeace

<https://www.greenpeace.org/international/tag/nuclear/>