NO FUTURE for NUCLEAR

FACT SHEET

NUCLEAR:

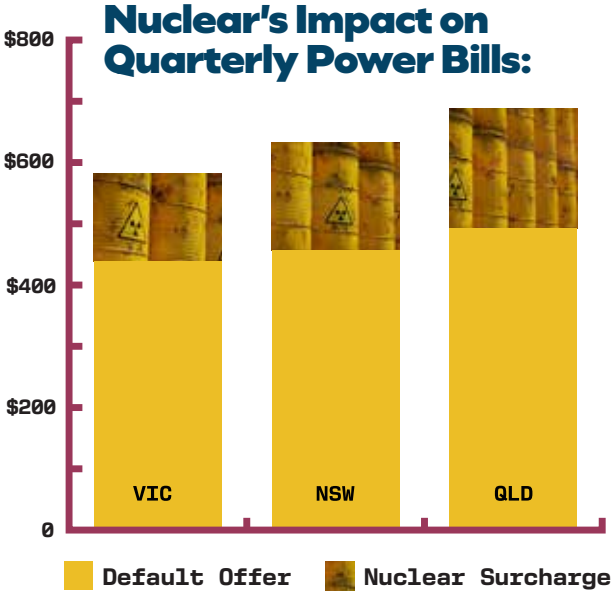
A Waste of Money

Nuclear is the most expensive form of energy to build and run.

The CSIRO estimates that the energy produced by Australian reactors would cost eight times more than the energy produced by renewables.

These costs would be passed on to consumers. The average Australian household would pay $590 per year more on their power bill with nuclear.

Nuclear's Impact on Quarterly Power Bills:



And nuclear will add to power bills before it's built. Dutton wants to extend the life of all coal fired power stations in Australia, while he waits for more than 15 years for the first nuclear reactor to be built.

NSW recently announced $225 million per year to extend just two 750 megawatt units at Eraring. Extending this to all coal fired power stations would cost Australian taxpayers more than $4.5 billion. That's an extra $500 per annum to every single consumer in the national energy market, for an increasingly unreliable energy system, as aging power stations fail.

Australian families can't afford to waste money on a nuclear surcharge.

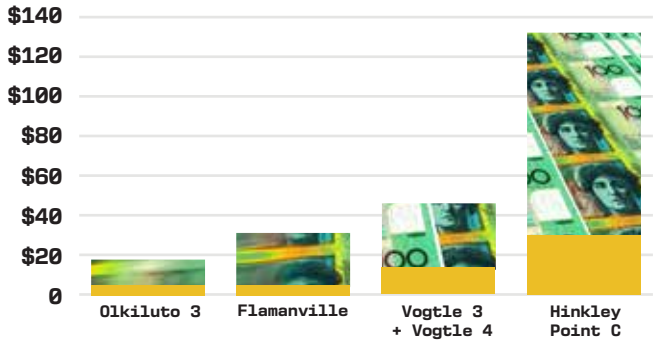
A Global History of Wasteful Cost Overruns

The CSIRO estimates that building a 1,000 megawatt nuclear reactor in Australia would cost up to $17 billion. The cost of building nuclear is up to 1.5–3 times the cost per kw/h of coal and 4–8 times the cost per kw/h of solar, when taking into account 'first of their kind' premiums.[2]

Australian nuclear reactors will be more expensive than in other countries around the world, because we have never built one before: we'll need to train a new workforce, pass new regulations, and produce new designs adapted to our environment. The CSIRO estimates that we will need to build at least five to ten reactors before build costs come down to be comparable with those around the world.

This is all before taking into account the potential for significant cost overruns. Around the world, the final cost of building a reactor has far exceeded the initial announcement.[3]

Nuclear Cost Overruns ($ billions):



On average, the final cost of building a reactor is 120% more than initially announced.

[1]CSIRO (2024), GenCost 2023–24
[2]CSIRO (2024), GenCost 2023–24
[3]Mycle Schneider Consulting (2023), World Nuclear Industry Status Report

Why waste time and money on nuclear, when we are already building cheaper renewables and battery storage today?

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NO FUTURE for NUCLEAR

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NUCLEAR POWER:

A Waste of Time

Australia needs to move quickly to replace its aging coal-fired power stations. We have already lost six coal-fired power stations in the last decade, and twelve more are scheduled to close by 2040. 90% of our coal-fired power will close by 2035.

Coal-fired Power stations closing by 2040:

STATION	CAPACITY (MW)	CLOSURE
Eraring	2880	2025
Collie	340	2027
Yallourn	1480	2028
Callide B	700	2028
Muja	854	2029
Bayswater	2,640	2033
Vales Point B	1,320	2033
Gladstone	1,680	2035
Loy Yang A (Partial)	2,200	2035
Tarong	1,400	2037
Tarong North	443	2037
Mount Piper	1,400	2040

We cannot keep these power stations open forever. As they approach the end of their life, they become less and less reliable.

Nuclear will not keep the lights on or our manufacturing onshore: the earliest that wecan build a nuclear reactor is 2040. And that's if there are no unplanned delays.

Nuclear reactors are notorious for delays and wasteful cost-blowouts and construction times are increasing every decade.

– Olkiluoto 3 in Finland was originally slated for completion in 2009 but didn't commence operations until 2023.

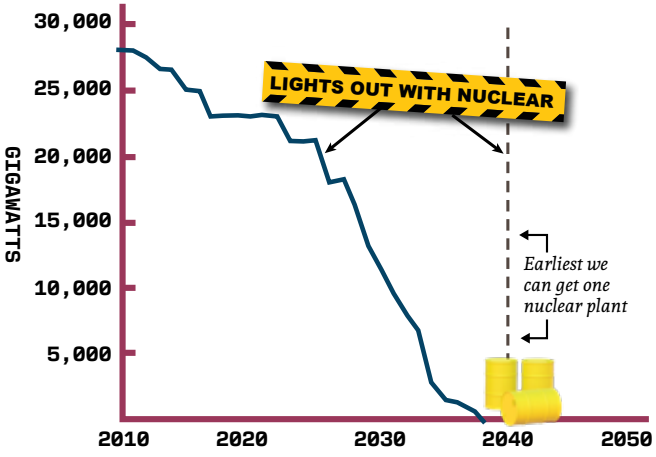
– Britain's Hinkley Point C reactor was due to open in 2025, but this has now been pushed back to at least 2029.

The nuclear reactors that came online between 2020-2022 were three years late on average.

Nuclear power is currently banned in every Australian state and territory. No state government or opposition supports wasting time changing this, and no nuclear power can be built without it.

Even if a single state government changed its mind tomorrow, the average nuclear takes 9.4 years just to build, and that's only after the designing, planning, and development approval processes.[1] With no workers in Australia currently trained to operate nuclear reactors, it would take us 10 – 15 years to develop the necessary workforce.[2] None of these jobs are guaranteed. By the time the first nuclear reactor was open, almost all the coal fired power stations would be gone.[3]

Coal station closures NEM, 2010–2050:



[1] Mycle Schneider Consulting. The World Nuclear Industry Status Report 2023

[2] Industry, Innovation and Science. Not without your approval

[3] AEMO. Draft Integrated Systems Plan

Nuclear will not keep the lights on or our manufacturing onshore. Australia cannot afford to wait for nuclear.

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NO FUTURE for NUCLEAR

FACT SHEET

NUCLEAR:

Jobs Laid Waste

Across the country, workers are installing solar panels on houses, installing new large scale solar and wind towers, and putting up new transmission lines.

By 2030 there will be more than 1.8 million people employed in renewable energy jobs, growing to over 2.2 million by 2050.[1]

The average 1GW nuclear reactor needs approximately 3,500 jobs at the construction peak and approximately 400 direct jobs once its operating. However, because the regulation, building and development phases are riddled with so many problems, those jobs are not guaranteed. Even if they are built, we won't see the first power station job until at least 2040.

There are currently 81 renewable energy projects under construction (or due to start construction soon) around Australia which will provide 12,832 MW of generation capacity.[2]

Australian workers can't afford to lose the opportunity to unlock investment in secure, well-paid jobs in renewable industries while we waste our time and money waiting around for nuclear reactors which use a fraction of the employment.

[1]JSA (2024), Clean Energy Generation Report
[2]Clean Energy Council (2024), Project Tracker

Dutton's radioactive plan will kill renewable energy jobs. Let's invest in a jobs rich future.

NO FUTURE for NUCLEAR

FACT SHEET

NUCLEAR:

Radioactive Waste

Dutton refuses to say where he'll store radioactive waste. Do you want hazardous waste in your community?

Nuclear power stations generate radioactive waste such as spent reactor fuel, reprocessing effluents, and contaminated tools and work clothing.

These materials can remain radioactive and hazardous to human health for tens of thousands of years.

Current levels of radioactive waste created by nuclear power stations globally equates to approximately 34,000m^3 of high-level waste each year. That's equivalent to 3,400 concrete trucks worth.

With other countries struggling with the question of where to put their waste, if we open a facility here, we risk becoming the dumping ground for all the world's nuclear waste.

This radioactive waste will need to be trucked across the country on public roads to be disposed of in a nuclear waste facility.

But, Australia does not have a dedicated national radioactive waste facility. And Dutton is refusing to say where he plans to put the waste.

To date, no Australian community has ever agreed to store radioactive waste.

The most recent location chosen by the previous Morrison Government to store waste generated by nuclear medicine technologies and radiation procedures was a place called Napandee, near Kimba in regional South Australia. But many local residents and the region's Barngarla Traditional Owners opposed this plan.

Would you want nuclear waste in your local area, being driven through your streets, or in the paddock next door?

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NUCLEAR:

SMRs: An Expensive Fantasy

Small Modular Reactors (SMRs) were the original centrepiece of Dutton's nuclear fantasy. An unproven and expensive technology, there is only one SMR globally that is operating commercially: in Russia, an autocratic regime with questionable regulatory standards.

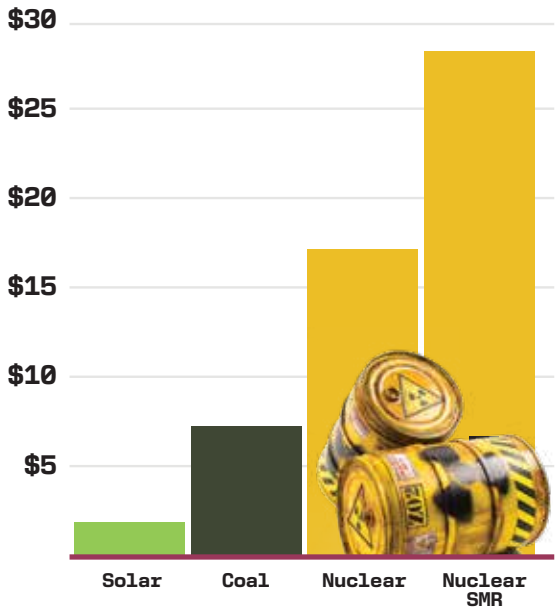
It is predicted that it will take at least 10 years before small modular reactors become commercially viable.[2]

Energy produced by SMRs is vastly more expensive than energy produced through any other means, with the CSIRO estimating that it would cost $28,581 per kilowatt.[3] This is nearly eighteen times more expensive than energy produced by large-scale solar, and more than double energy produced by coal.

These costs would be passed on to consumers and increase power bills. The average household would pay $2067 more per year on their power bill for nuclear power.

Last year, the Carbon Free Power Project abandoned construction of an SMR in the US following a cost blow out of 56%.[1] Commenced in 2015, with a delivery date of 2030, the Carbon Free Power Project is the only SMR to have received design certification in the US.

Capital Cost (billions):



Cost to deliver 1,000 megawatt capacity

[1]CSIRO (2023), The question of nuclear in Australiua's energy system
[2]IDTechEx (2023), Nuclear Small Modular Reactors 2023–2043
[3]CSIRO (2024), GenCost 2023–24

Small Modular Reactors are an unproven fantasy – they cannot keep the lights on or bring our emissions down.