



How nuclear power harms climate protection

Nuclear power fails to fight the climate crisis because hanging on to this expensive, high-risk technology slows down the development of renewable energy and the urgent transformation of our energy system. Here are a few facts:



Is nuclear power the key to achieving climate targets?

No. Roughly 400 nuclear reactors worldwide currently only supply about two percent of global final energy consumption (including heat and transport) – and this share is declining. To save a significant amount of CO₂, thousands of new nuclear power plants would need to be built within just a few years. Even the tripling of nuclear electricity announced in 2023 at the COP28 climate conference would make no meaningful difference for the climate, would come far too late, and is not feasible anyway.¹ Renewables, in contrast, already supply more than 15 percent of final energy consumption and nearly a third of global electricity – and their share is growing rapidly.²



Why do CO₂ emissions remain high for longer with nuclear power?

Effective climate protection is not just about CO₂ emissions per kilowatt-hour. What really matters is how quickly and by how much emissions can be cut – and at what cost:

- **How quickly?** Large solar or wind farms save significant amounts of CO₂ and can be built within just a few years. By contrast, it takes ten years or more to build a new nuclear power plant – time lost for the climate. From planning to commissioning, the process can easily take 20 years. Cost overruns and massive delays are the norm – and many planned nuclear plants never get built or never go online.
- **How much?** Building enough nuclear power plants to significantly cut CO₂ would require far more resources, skilled personnel, and funding than currently available. Meanwhile, renewables now account for a third of global electricity, surpassing nuclear by more than threefold, with the potential to scale up fast. In 2025, renewables already accounted for over 90 percent of all newly installed capacity.
- **At what cost?** Building new nuclear power plants or extending the lifetimes of existing ones always requires subsidies or government guarantees. While renewables are now the cheapest way to generate electricity, nuclear power remains the most expensive.

The nuclear lobby uses climate action as a pretext, but its true interests lie elsewhere. **Debates about nuclear energy distract from the energy transition** by diverting attention and resources away from actual solutions.



Can nuclear power complement renewables?

No. A modern electricity grid is flexible and decentralized: wind and solar plants provide the majority of energy, while the intelligent management of generation, demand, and storage keeps the system balanced.

Nuclear power plants are inflexible and therefore incompatible with renewables in more than one way:

- When wind and solar are insufficient to meet short-term demand, nuclear plants are far too slow to respond.
- When renewables can supply plenty of cheap electricity, the inflexible nuclear plants cannot be switched off.

Debates about (re-)introducing or expanding nuclear power make investments in renewables less secure and therefore less attractive. Relying on nuclear power therefore means missing out on the full potential of the cheapest and most climate-friendly energy sources.



Would it be better to shut down coal power plants first?

No. Shutting down all coal-fired power plants before phasing out nuclear power is not necessarily the most effective path for the climate. It makes sense to retire the least flexible power plants first, while expanding renewables and storage to replace both nuclear and coal-fired power plants.

In Germany, for example, **the phase-out of nuclear power boosted the energy transition, which also helped cut the use of coal.** In the first twelve months after the last three nuclear plants shut down, renewables fully replaced the electricity the plants had supplied. In addition, during that same period, hard coal use fell by almost half and lignite by nearly a third. At this pace, a full phase-out of coal is now within reach.



Is nuclear power necessary for data centres and AI?

No. Although the energy demand of data centres – driven by AI in particular – is growing rapidly, it remains manageable: the International Energy Agency (IEA) forecasts an increase to 700–1,250 terawatt-hours by 2030, equivalent to just 2–4 per cent of global electricity consumption.³

Despite the media attention around nuclear deals by US tech firms, companies like Amazon, Microsoft, and Meta primarily rely on renewable electricity and are actively expanding wind and solar energy.

The claim that data centres need nuclear power is a myth, as shown by real-world examples. Across the EU, data centres already source an average of 86 percent of their electricity from renewables.⁴ In some European countries, data centres are already fully green. The energy system can supply data centres and AI without nuclear power. Its promotion mainly serves as an excuse to slow down the expansion of wind and solar energy.

Does extending the lifetimes of existing nuclear power plants help the climate?

No. Just like building new reactors, extending the lifetimes of old nuclear power plants slows down the energy transition and is therefore counterproductive for the climate. Pouring money into patchwork repairs on old, unreliable nuclear plants just to keep them running costs billions. That money could achieve far more for the climate if invested in wind, solar, and storage – and it would do so faster, cheaper, and without producing nuclear waste or carrying unpredictable risks.⁵

Other reasons against extending nuclear plant lifetimes include:

- The old nuclear power plants require expensive upgrades and repairs, and generate additional nuclear waste.
- The risk of serious accidents increases as reactors get older.⁶
- Even with upgrades, decades-old plants do not meet modern safety standards.
- Older reactors are prone to longer and more frequent outages – and the fossil backup plants that often replace them drive up CO₂ emissions.
- Older nuclear plants are particularly inflexible.

How reliable is nuclear power in the climate crisis?

Not very. Extreme weather events and rising sea levels reduce the reliability of nuclear power plants, as they can only adapt to heat, drought, or flooding to a limited extent. Rather than increasing energy security, they make the system more vulnerable⁷:

- Many reactors rely on river water for cooling. However, due to climate change, rivers often carry less water in summer and warm up more. To prevent the water from getting too hot – which is crucial for fish survival – nuclear plants must reduce output or shut down. In recent years, reactors in France have repeatedly been taken offline for this reason.
- Rising sea levels threaten coastal nuclear plants and the nuclear waste stored there, increasing the risk of accidents.

Why do so many people claim we need nuclear power?

For the past few years, the nuclear lobby has been running massive PR campaigns to give nuclear power a “green” image. With the climate crisis so clearly intensifying, this resonates with many people. At the same time, the true potential of renewable energy and the rapid pace of its expansion is still underestimated – the same goes for storage technologies.

1 Bulletin of the Atomic Scientists 2023.
2 Energy Institute 2025 und Smil 2017; own conversions to final energy consumption.
3 IEA 2025.
4 Directorate-General for Energy, AIT, Borderstep and EY, 2025.
5 World Nuclear Industry Status Report 2019, p. 245.
6 Greenpeace 2014.
7 OECD 2022.

What does .ausgestrahlt call for?

- Chasing nuclear fantasies delays the energy transition: no EU funding for SMRs or other nuclear projects!
- Nuclear power must not be labelled sustainable or climate-friendly.
- 100% renewable energy from sun, wind, and water now!

A DEAD END FOR THE CLIMATE



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