

MYTH

Sustainability

Nuclear is not renewable and
there won't be enough uranium for
the long term.

BUSTED!

Nuclear is in fact renewable. The United Nations body (WCED) that coined the term 'sustainable development' stated that nuclear fission technologies, specifically breeder reactors, are renewable.

Using breeder reactors, the uranium stocks can be extended to thousands or even millions of years.

Renewable sources of energy still require machines to capture the energy. Due to the energy density of nuclear fuel, we need fewer materials to harness the energy than conventional renewables.

MYTH

Sustainability

The social and environmental impacts
of uranium mining are too great.

BUSTED!

All energy technologies require minerals/ore and they should be obtained by the most sustainable method.

Historical poor practices are no longer performed.

Because nuclear is energy dense, the amount of mining is less than other forms of energy generation.

Today's mining utilises modern techniques such as in-site recovery.

MYTH

Sustainability

Nuclear power plants are often built on the coast which makes them more vulnerable to sea level rise.

BUSTED!

Delaying response to climate change by not using all options available to reduce CO2 emissions increases likelihood of sea level rise.

Nuclear power plants are built to withstand natural and human-made hazards including rising sea levels, flooding and climate change.

MYTH

Sustainability

Nuclear isn't a low carbon technology.
It doesn't reduce emissions.

BUSTED!

Nuclear power has the lowest carbon footprint when compared to other sustainable energy sources.

*Current data shows the following CO2 emissions per gigawatt-hour of electricity over the lifecycle of the power plant.

Nuclear – 6 tonnes

Wind – 11 tonnes

Hydro – 24 tonnes

Solar – 53 tonnes

* Our World in Data – correct at time of printing

MYTH

Sustainability

Renewable energy can completely replace nuclear, so why have nuclear in the first place!

BUSTED!

Whilst renewables are essential, they are intermittent (e.g. solar and wind).

Nuclear provides steady, 24/7 dispatchable power and can complement renewables in a low-carbon energy mix.

MYTH

Sustainability

Nuclear waste cannot be recycled
and is bad for the environment.

BUSTED!

Nuclear power generation is sustainable in its own right with carbon emissions similar to wind and solar.

While nuclear waste management presents challenges, significant advancements have been made in developing safe and effective solutions; over 90% of nuclear spent fuel can be recycled, and significant advances have been made in terms of geological disposal facilities.

MYTH

Sustainability

Nuclear is not required to
reach Net Zero.

BUSTED!

"All illustrative pathways the IPCC have recognised that allow us to remain within 1.5°C of warming show there to be a substantial increase in nuclear power in the coming decades."

The International Energy Agency's Net Zero roadmap shows a significant increase in nuclear power will be required to reach Net Zero.