

## IAEA explains nuclear's vital role in a carbon-free future

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**Nuclear power provides 10% of global electricity, but to stem climate change the world is going to need far greater amounts of clean and reliable energy, the International Atomic Energy Agency (IAEA) says in a short film it published today. To tackle climate change, 80% of all electricity will need to be low carbon by 2050.**



"Our energy choices today will determine our children's world tomorrow" - Rafael Mariano Grossi, IAEA director general (Image: IAEA)

The [video](#) - *Nuclear Power: The Road to a Carbon Free Future* - notes that 30 countries currently operate nuclear power plants and that more than two dozen others are looking at nuclear energy to meet their power and climate needs. Russia, India and China are currently leading the way in expanding nuclear power. China has nine reactors under construction, the most anywhere. Countries elsewhere are also building new reactors, like Finland, and the United Arab Emirates and Belarus are close to operating their first nuclear power plants, while Bangladesh and Turkey recently started construction of theirs.

Juha Poikola of TVO power company in Finland, says in the film: "Our biggest climate act in Finland will be when the new reactor will start, in Olkiluoto." Ibrahim Halil Dere from Turkey's Ministry of Energy, says: "We believe that nuclear energy is an indispensable option for Turkey because it is emission free, environmentally friendly, sustainable and a reliable electricity source."

Currently 450 nuclear power reactors operate worldwide, but to respond to emerging needs and challenges, the nuclear power industry is looking ahead towards innovative solutions for the long-term operation of existing reactors, the timely expansion of ongoing nuclear power programmes, and the deployment of new reactor technologies, the film says. Several countries are developing small modular reactors (SMRs) and one has already been built in Russia, it adds, referring to the floating nuclear power plant *Akademik Lomonosov*.

Rebecca Casper, mayor of Idaho Falls in the USA, said SMRs can "integrate beautifully and seamlessly with wind, with solar, with some of those other sources that are maybe intermittent but that are also carbon-free". Nuclear power is "the key," she adds, "that makes all of that other desirable alternative energy possible because alone it just can't sustain a growing population."

Rafael Mariano Grossi, IAEA director general, says: "The scientific consensus on climate change - and the voices of millions calling for climate action - makes clear what's at stake. Our energy choices today will determine our children's world tomorrow. Nuclear power is part of the solution."

The video was produced by Jeffrey Donovan and Krzysztof Kolasinski.

Researched and written by World Nuclear News

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