

China makes nuclear power breakthrough

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The experimental fast-neutron reactor is the result of more than 20 years of research and could also help minimise radioactive waste from nuclear energy, the state-run China Institute of Atomic Energy (CIAE) said.

China is the ninth country to develop a fast-neutron reactor, which uses uranium 60 times more efficiently than a normal reactor, helping the country to reduce its reliance on imports of the mineral.

Beijing has stepped up investment in [nuclear power](#) in an effort to slash its world-leading [carbon emissions](#) and scale down the country's heavy reliance on coal, which accounts for 70 percent of its energy needs.

But China's uranium reserves are limited, and it will have to import increasingly large amounts as its civilian nuclear programme gathers speed.

China -- the world's second largest economy -- currently has 14 nuclear reactors and is building more than two dozen others. It aims to get 15 percent of its power from [renewable sources](#) by 2020.

According to the World Nuclear Association, it aims to increase nuclear power capacity to 80 [gigawatts](#) by 2020 from 10.8 gigawatts in 2010.

The fourth-generation reactor, located just outside Beijing, has a capacity of just 20 megawatts. Other recently launched nuclear reactors in China had a capacity of more than one gigawatt, or 1,000 megawatts.

The latest technological step comes after China succeeded in reprocessing spent nuclear fuel in an experimental reactor in the northwestern province of Gansu in January.

Authorities said this would help extend the lifespan of proven uranium deposits to 3,000 years from the current forecast of 50-70 years.

Beijing has also pledged to improve emergency procedures and construction standards at its [nuclear power plants](#), after Japan's devastating earthquake and ensuing tsunami triggered an atomic crisis.

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