

UK looks to nuclear to bolster energy independence

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The UK government is committed to a programme of new nuclear projects beyond Sizewell C, giving industry and investors the confidence they need to deliver projects at speed, according to a new policy paper. It describes nuclear as "the critical baseload of the future energy system".



(Image: gov.uk)

Launched by Energy Security Secretary Grant Shapps, the *Powering Up Britain* policy paper sets out "ambitious plans to scale up affordable, clean, homegrown power and build thriving green industries in Britain ... boosting the country's energy security and independence and reducing household bills for the long-term and maintaining a world-leading position in achieving net-zero".

The paper lists 12 new measures the government will take to achieve this. The government said it is committed to carbon capture usage and storage, and projects will soon be announced for the rollout of the first carbon capture clusters. The plans also include a GBP160 million (USD197 million) fund that will support the infrastructure for floating offshore wind projects, alongside a more than GBP380 million boost into the rollout of electric vehicle charging points and infrastructure. It also supports the first tranche of new green hydrogen production projects under the GBP240 million Net-Zero Hydrogen Fund as part of development of this new power source.

"This document - *Powering Up Britain* - is the government's blueprint for the future of energy in this country," Shapps said. "By bringing together our Energy Security Plan, and Net-Zero Growth Plan, it explains how we will diversify, decarbonise and domesticate energy production by investing in renewables and nuclear, to power Britain from Britain."

On nuclear, the government has launched Great British Nuclear (GBN), which will be responsible for driving the delivery of new nuclear projects, with the aim of increasing the share of nuclear in the UK's electricity mix from the current 15% to 25% by 2050. GBN will be based in or around the Greater Manchester area and operate through British Nuclear Fuels Limited. It will initially be led by Simon Bowen as interim Chair and Gwen Parry-Jones as interim CEO.

"The first priority for GBN is to launch a competitive process to select the best small modular reactor (SMR) technologies," the paper said. "This will commence in April with market engagement as the first phase. The second phase - the down-selection process - will be launched in the summer, with an ambition to assess and decide on the leading technologies by Autumn. We will co-fund the selected technologies through their development and will work with successful bidders on ensuring the right financing and site arrangements are in place, in line with our commitment to take two Final Investment Decisions in the next parliament.

"The government has also launched the Future Nuclear Enabling Fund of up to GBP120 million to provide targeted support for new nuclear to address barriers to entry and will announce a shortlist of applications to begin pre-grant award due-diligence soon."

The government noted that nuclear energy has been used "reliably and safely" in the UK for more than 60 years and "we have extensive experience of the full nuclear life cycle, from front-end design through to decommissioning". It added: "We are matching the global competition and scaling-up our nuclear programme by having launched GBN, responsible for driving delivery of new nuclear projects, backed with the funding it needs."

The policy paper says the government wants UK companies to "continue playing a key role in green supply chains, from nuclear to CCUS and electric vehicles. For example, nuclear power station Hinkley Point C has spent over GBP4.1 billion with suppliers in the Southwest to date and EDF anticipate that 64% of the construction value of the project will be spent with UK firms, with over 22,000 people nationwide currently working on the project".

"We're driving forward plans to boost renewables, revive nuclear and build new thriving industries like carbon capture, which will in turn create good jobs across the country, provide new opportunities for British businesses at home and abroad, and maintain our world-leading action to reach net-zero," said Prime Minister Rishi Sunak.

Tom Greatrex, Chief Executive of the Nuclear Industry Association, said: "Great British Nuclear will transform the way nuclear projects are deployed in the UK, enabling us to deliver more capacity more quickly. It will help us become a global leader in large and small scale nuclear, with the SMR selection process offering a real opportunity for home-grown technologies and others to bring jobs, skills and investment to the UK."

He added: "For nuclear to provide a quarter of Britain's electricity means embarking on an ambitious new build programme, including a fleet of new stations, as well as placing nuclear on par with other green technologies to drive crucial investment. More nuclear will cut gas imports, cut carbon and create good jobs for communities all across the country."

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