Britain to lead fusion energy race to deliver energy security

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Government sets out its vision for developing a commercial fusion industry in the UK that will deliver skilled jobs, investment and growth.

- Britain becomes first country in the world with a clear path to commercial fusion that could ensure lasting energy security
- Construction partner announced for STEP prototype fusion power plant at West Burton, Nottinghamshire, with plant construction expected to start from 2030
- Government backs innovation including developing the world's most powerful fusion-dedicated AI supercomputer

Britain is another step closer to a future powered by clean, virtually limitless energy as the government launches its Fusion Strategy today (Monday 16 March), backing British jobs, investment and energy sovereignty and delivering on its Industrial Strategy.

The current conflict in the Middle East shows the only route to energy sovereignty for the UK is to end its dependence on fossil fuel markets and accelerate the transition to clean homegrown power, with fusion holding the potential to revolutionise the energy system and ensure lasting energy abundance and security.

The government is seizing these benefits head on as part of delivering its Industrial Strategy - making Britain the first country in the world with a clear path to commercial fusion energy. This is set to support over 10,000 UK jobs by 2030, drive investment, and give industry the confidence to take fusion from the lab to the grid, ready for deployment.

This includes plans for the UK to be the first to offer a market framework to attract and support private investment in fusion energy. This would provide confidence to investors and ensure a fair deal for consumers.

The strategy builds on the government's record £2.5 billion investment in fusion research and development secured at the Spending Review, and the government's £20 million cornerstone investment into Starmaker One, a UK fusion investment fund – backing British innovation and attracting the best technologies to UK shores.

For the first time, the strategy breaks down how the investment will be spent, including a £200 million contract for a new Construction Partner to build a world-leading fusion energy plant in a former coal plant in Nottinghamshire. Known as STEP, the project is due to be completed by 2040 with plant construction expected to start from 2030 and jobs supported in the meantime including building R&D test facilities for key technologies. This represents the UK's clean energy superpower mission in action, with the same communities that powered the UK with coal set to power the next generation with clean, homegrown energy.

Secretary of State, Ed Miliband, said:

> From Nottinghamshire to Cumbria, and from the Oxford-Cambridge corridor to South

> Yorkshire, Britain has long been at the forefront of fusion energy.
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> With our Fusion Strategy, we're going further - backing industry, supporting over 10,000 jobs, and paving the way for the ultimate long term energy security solution – clean, virtually limitless energy powered by British ingenuity and determination.

Lord Vallance, Minister for Science, Innovation, Research and Nuclear said:

> We can be proud that Britain will lead the way on research, innovation and skills for a future of limitless fusion energy.
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> By backing our fusion industry, we are not only securing our future energy independence, but from innovation and research to engineers, we are also providing the skilled clean energy jobs of the future for British people.

From the United States to China and Japan, countries are racing to unlock fusion energy – a breakthrough technology that could create sustained economic growth, with the future fusion market expected to be worth up to £12 trillion in the second half of the century. By harnessing the power of the sun and fusing two forms of hydrogen at extreme temperatures, fusion energy can unleash vast amounts of clean, abundant homegrown power, with the potential to transform Britain and the world.

The Fusion Strategy will unleash a new energy revolution for the country with:

- **World first policy:** The UK will be the first country in the world to offer a market framework for fusion electricity to de-risk and incentivise private investment and enable fusion to power British homes and businesses. There will also be engagement with insurance markets to ensure they have appropriate cover and planning will be streamlined with the first ever fusion-specific rules.
- **STEP:** A £200 million Construction Partner contract announced for the STEP prototype fusion powerplant to be built in West Burton. Backed by £1.3 billion of funding, UK Fusion Energy - which is to be renamed from UK Industrial Fusion Solutions - will be one of the best-capitalised fusion companies in the world, primed to deliver STEP. This project is transforming a region powered by coal into a world leading centre for abundant fusion energy.
- **Sunrise AI Supercomputer:** The government is investing £45 million to fund the world's most powerful fusion-dedicated AI supercomputer, developed in collaboration between UKAEA and the University of Cambridge, to accelerate fusion design, modelling and operations.
- **International investment:** A signal of confidence in the UK fusion programme as UKAEA and global energy tech company Eni have agreed to establish a company to advance fusion energy technologies. Further details about the venture will be announced in May 2026.
- **Skills and investment:** A plan backed by £50 million for the UK to be the home of fusion skills and innovation, with apprenticeships and an upcoming investment prospectus that will ensure countries invest and build for a bright future of fusion in Britain. This includes aiming to train over 2,000 people in fusion related disciplines.

The plans will set Britain up to seize the benefits of the growing fusion market. From Nottinghamshire, to Cumbria, South Yorkshire, and across the Oxford-Cambridge Growth Corridor, fusion is a credible career opportunity for the next generation of scientists, innovators and engineers.

Breakthroughs developed for fusion are driving advances far beyond energy – with the UKAEA announcing three new spin-off companies, with four more imminent, that will drive fusion technological development into other industries. These opportunities span AI design of complex machinery, cutting-edge medical imaging technologies, advanced robotics for harsh environments, and microwave systems that support national defence.

Fusion was also recently included in the UK-US Tech Prosperity Deal, which outlined how British and American expertise will fast-track progress towards commercial fusion power. This included AI collaborations between industry and the UK Atomic Energy Authority to advance fusion energy research in the US and UK. The Fusion Strategy also comes ahead of the UK-US Global Fusion Policy Summit later this year.

Dr Tim Bestwick, Group CEO of the United Kingdom Atomic Energy Authority (UKAEA), said:

> UKAEA fully supports the UK Government's Fusion Strategy and its ambition to position the UK as a global leader in commercial fusion technology. UKAEA Group is focused on delivering across this important national strategy, including key capabilities in world-leading fusion technologies. Our ambitious programmes are progressing the field of fusion and are closely aligned with the Government's priorities.

Tristram Denton, UK Director of the Fusion Industry Association, said:

> Commercial fusion power is scheduled to be online in the 2030s, and today's commitment to establish a strong market framework is another step towards the UK being at the very heart of this generational industrial opportunity.
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> The UK has world-class capabilities, and this industrially focused strategy means the sector can confidently view the UK as a great place for fusion development, deployment, and supply. We welcome the UK's continuing leadership in the global drive to commercial fusion.

Warrick Matthews, CEO of Tokamak Energy, said:

> We welcome the government's commitment to establishing the UK as a global leader in fusion – the 21st century's most important technology. Tokamak Energy brings extensive expertise to the race, including power plant-relevant results on our groundbreaking spherical tokamak and world-first high temperature superconducting (HTS) fusion magnet system.

Mark Thomas, CEO of First Light Fusion, said:

> First Light Fusion welcomes the publication of the new Fusion Strategy and its recognition that fusion power offers an achievable pathway to clean, affordable energy security for the UK. We are grateful to have been consulted in the preparation of the strategy and look forward to working hand-in-hand with government to bring the strategy to life.

Valerie Jamieson, Development Manager at the Fusion Cluster, said:

> The Fusion Strategy is a major boost for the UK's fusion industry. A world-first market framework, clearer investment pathways and new skills support give companies the certainty they need to invest, scale, and innovate. With today's commitments, the UK is signalling that it is serious about leading the global fusion race.

Notes to editors

The Fusion Strategy can be found here: UK fusion strategy 2026.

The STEP Construction Partner contract is worth £197m for an initial term to 2029.

https://www.gov.uk/government/news/britain-to-lead-fusion-energy-race-to-deliver-energy-security