

New UK Fusion Energy strategy maps path to commercial fusion

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Building on the Government's recently published fusion strategy, UK Fusion Energy Ltd (UKFE) has today published its new Fusion Strategy.

The strategy sets out how the UK will deliver its prototype fusion power plant, STEP Fusion, and secure a leading position in the emerging global fusion market estimated to be worth up to £12 trillion by 2100.

Backed by £1.3 billion in government investment, the strategy outlines a clear pathway from world-leading science to commercial fusion energy, while creating significant opportunities for UK industry.

Building on more than 70 years of UK leadership in fusion research, the strategy sets out how UK Fusion Energy Ltd will act as the national fusion systems integrator bringing together industrial partners, research expertise, and advanced digital and AI capabilities to deliver STEP Fusion at West Burton in Nottinghamshire. The plant is expected to begin operations in 2040.

Fusion energy presents near term economic growth, industrial capability and one of the most significant long-term clean energy opportunities. As global demand grows for secure, scalable, low-carbon power, fusion has the potential to provide a reliable energy source for generations, strengthening energy security.

A coordinated national moment for fusion

The launch of the UK Fusion Strategy builds on a landmark month for the sector. At Fusion Fest 2026 in London, UK Fusion Energy joins the UK Atomic Energy Authority (UKAEA) and the Department for Energy Security and Net Zero (DESNZ) to showcase the UK's unified national approach to making fusion a commercial reality.

The event brings together industry, investors, policymakers and the research community to demonstrate how the UK is accelerating from scientific leadership into large-scale delivery.

Fusion Fest also marked the publication of UKAEA's strategic direction, setting out how government, industry and the research community will work together to build a thriving UK fusion economy.

These announcements connect directly to the Government's wider UK Fusion Strategy, published in March, which sets the long-term pathway for growing the UK fusion industry, including delivering STEP Fusion at West Burton and positioning the UK as a global leader in the emerging multi-trillion-pound fusion market.

Together, the strategies signal a clear and coordinated national mission: to translate decades of scientific leadership into commercial fusion energy, unlock high-value industrial opportunities across the UK and secure the UK's place at the forefront of one of the most transformative clean energy technologies of the century.

The UKFE strategy highlights

- UK capabilities: Drawing on the heritage of the UK Atomic Energy Authority and decades of experience, the UK is one of the most advanced nations in fusion development.
- Industrial partnership model: UK Fusion Energy is assembling an integrated, high-performing delivery team, including the ILIOS Consortium as Construction Partner, UKAEA as Fusion Partner, and Tokamak Energy as its first System Partner for high-temperature superconducting magnets.
- Technology breakthroughs: Rapid progress across essential fusion technologies, from next-generation magnets and precision heating systems to advanced robotics and digital engineering.
- Regional and national impact: STEP Fusion is catalysing the Trent Clean Energy Supercluster, helping attract high-value industries, investment and jobs to the East Midlands while strengthening UK supply chains nationwide.
- Investor opportunity: As STEP Fusion advances, UK Fusion Energy will open opportunities for investors, supply-chain partners and advanced technology companies to be part of one of the UK's most significant long-term industrial programmes.

Quotes

Lord Vallance of Balham, Minister for Science, Innovation, Research and Nuclear, commented on the UKFE Strategy:

UK Fusion Energy is one of the world's leading fusion companies. The government completely backs the UK Fusion Energy vision set out in this document, to build on our national strengths to take fusion from the lab to the grid, delivering major benefits to the UK now and for generations to come

Paul Methven, CEO of UK Fusion Energy Ltd, said:

Fusion is a transformative opportunity, and the UK is exceptionally well placed to seize it. Our strategy sets out how we will deliver STEP Fusion in partnership with industry and use it as the launchpad for a globally competitive commercial fusion sector. The rewards for the UK in jobs, innovation and long-term energy security are immense.

UKFE is in a strong position to move into delivery. Not only do we have our strategy to 2040, but we also have our Construction Partner, Magnets Partner and Information Systems contract in place, with site ownership of West Burton now transferred to UKAEA. This marks a critical milestone as we make fusion energy a reality for the UK.

Professor David Gann OBE, Chairman of STEP Fusion, said:

This strategy brings together the UK's strongest capabilities science, our engineering and our industrial talent and directs them towards one of the defining energy challenges of our time. Fusion will be delivered through ambition, partnership and leadership, and

the UK is ready to take that role on the world stage.

Simon Matthews, Programme Director at ILIOS Consortium, said:

This strategy marks a decisive shift from concept to delivery for fusion energy in the UK. As Construction Partner, the ILIOS Consortium is proud to support UK Fusion Energy by bringing together the skills, experience and supply-chain strength needed to deliver the STEP Programme, a once-in-a-generation project which will create opportunities and growth across the midlands and beyond.

Strengthening Delivery Through Key Programme Partnerships

UK Fusion Energy has also confirmed two major programme milestones that demonstrate clear progress in Tranche 2a. The organisation has awarded a £70 million contract to Tokamak Energy as its first engineering systems partner for next-generation magnet technologies. The partnership brings UK-leading expertise in high-temperature superconducting magnets and access to Tokamak Energy's advanced ST40 facility, accelerating design iteration, reducing technical risk and strengthening essential sovereign capability.

UKFE has additionally signed a £30 million agreement with Dassault Systèmes to expand STEP's Product Lifecycle Management capability through the 3DEXPERIENCE platform. This marks a critical milestone in establishing the digital information baseline for STEP, providing a unified engineering environment and laying the foundations for the programme's long-term digital twin. Together, these partnerships show the programme moving decisively from concept into delivery.

UK Fusion Energy Ltd launched its strategy at Fusion Fest 2026 in London, alongside announcements from UKAEA and the Department for Energy Security and Net Zero.

<https://www.gov.uk/government/news/new-uk-fusion-energy-strategy-maps-path-to-commercial-fusion>