



INTERNATIONAL PARTNERSHIP FOR HYDROGEN AND FUEL CELLS IN THE ECONOMY

IPHE Country Update Jun 2025 – Nov 2025:

United Kingdom

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1. New Initiatives, Programs, and Policies on Hydrogen and Fuel Cells

- **Industrial Strategy**
 - Government has published a new Industrial Strategy to drive long-term, sustainable, inclusive and secure growth by securing investment into crucial sectors of the economy.
 - The Industrial Strategy, through the 10 Year Clean Energy Industries Sector Plan (CEI), backs hydrogen as a frontier technology. It clarifies how Government will capitalise on the enormous growth potential and good jobs for real people nationwide through the net zero transition.
 - The associated Action Plan gives the green light to industry investors and the supply chain. It provides a clear deployment timeline for our hydrogen allocation rounds (HARs) and announces new investment rounds and policies to turbocharge growth in the sector.
- **National Energy System Operator (NESO) Hydrogen Infrastructure Policy Statement**
 - Government published a policy statement on NESO's hydrogen strategic planning responsibilities. In this policy statement we outlined how we expect NESO to carry out hydrogen strategic planning through NESO's different strategic energy plans, and how these plans could inform any future allocations of the hydrogen business models to launch after 2026.
- **Hydrogen Strategy**
 - We aim to publish a new UK Hydrogen Strategy in due course, which will set out our vision and objectives for the sector.
- [Zero Emission HGV and Infrastructure Demonstrator \(ZEHID\) programme](#)
 - The up to £200m ZEHID programme will deploy hundreds of battery electric and hydrogen fuel cell HGVs and their associated recharging and refuelling sites, most will be placed with operators by March 2026.
 - The programme will address initial infrastructure provision and provide confidence regarding different zero emission HGV technologies.
 - Nearly 300 zero emission HGVs and have now been ordered, and a map of 73 planned infrastructure locations is available.
- [Renewable Transport Fuel Obligation \(RTFO\) Review](#)
 - Following the RTFO review, government commits to consulting in the future on options for increasing RTFO targets; how the RTFO rewards fuels; support for development fuels; the inclusion of nuclear-derived



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fuels under the RTFO; and including hydrogen fuel cell mobile generators in the list of eligible fuel uses.

- [Sustainable Aviation Fuel \(SAF\) Revenue Certainty Mechanism](#)
 - Designed to provide a guaranteed strike price to encourage investment in UK SAF production.
 - The SAF Bill is currently progressing through parliament. It passed Report Stage & Third Reading in the House of Commons on 15th October 2025 and is currently in the House of Lords. Its second reading is due to take place on Thursday 20th November 2025.
 - DfT published a [consultation](#) on the design of the variable levy on aviation fuel suppliers, which will fund the revenue certainty mechanism.
 - The necessary legislation is expected to be in place by the end of 2026.
- [Advanced Fuels Fund \(AFF\)](#)
 - Supporting first-of-a-kind SAF production plants, some of which utilise low carbon hydrogen in their process. The AFF has allocated over £198 million to support UK SAF projects since 2022, including £63m of grant funding in the current Window 3 of the fund, which runs until 31 March 2026.
- UK Shipping Office for Reducing Emissions (UK SHORE)
 - In September 2025, the Government announced [an additional £448m to continue the UK SHORE programme](#) which, along with an additional £700m match funding from industry, funds feasibility studies and trials in a range of clean maritime technologies, including hydrogen.
- UK Maritime Decarbonisation Strategy – fuel regulations
 - One of the five key policies in the Maritime Decarbonisation Strategy is to implement fuel regulations internationally and domestically.
 - The UK is disappointed that the adoption of the International Maritime Organization (IMO) Net-Zero Framework has been delayed as we believe that the best way to address international maritime emissions remains multilateral action taken at the IMO. We will be working with our international partners to progress adoption of the Net-Zero Framework in future.
 - The Maritime Decarbonisation Strategy made clear that if the IMO action is delayed or proves insufficient, we would introduce bespoke domestic measures to address our share of these international emissions, in line with our legal commitment to net zero.
 - We will work to understand the impact of the delayed adoption on our own domestic measures and consult on any future UK measures.



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2. Hydrogen and Fuel Cell R&D Update

- The Hydrogen BECCS (bioenergy with carbon capture and storage) Innovation Programme, concluding in September 2025, saw Catagen successfully generate hydrogen from a waste biomass feedstock using its electricity-powered thermo-chemical reactor. The company intends to blend this with sustainable CO₂ to produce e-fuels such as Sustainable Aviation Fuel.
- The Industrial Hydrogen Accelerator Programme has supported several pioneering demos, including EDF leading the successful use of hydrogen in asphalt production at Heidelberg Material's Criggion plant in North Wales. Another output from this project is the Nuclear Enabled Hydrogen (NEH) Handbook which outlines the benefits of NEH and aims to provide a practical and accessible guide for the integration of a Solid Oxide Electrolyser (SOE) with nuclear power. The handbook and accompanying website is due to be published in November 2025.
- The Low Carbon Hydrogen Supply 2 innovation programme supported Immaterial to successfully demonstrate the first cryogenic monolithic metal-organic frameworks (MOF)-based hydrogen tank in a fuel cell bus in July. During the demonstration at the Cotswolds airport the bus was able to run continuously for over an hour.
- UK SHORE programme: Progress continues on key hydrogen demonstration projects, including TransShip II, the RV Prince Madog Hydrogen Retrofit, and the Carnot High Efficiency Hydrogen Combustion Engine Demonstrator, alongside new workforce training initiatives such as an MCA-approved hydrogen course for Carnot project's Carisbrooke crew.

3. Demonstration, Deployments, and Workforce Developments Update

- The Clean Energy Jobs Plan was published in October 2025. This sets out the workforce needed to deliver our clean energy ambitions and how the government will work in partnership with industry and trade unions to deliver it.
- The Clean Energy Jobs Plan sets a pathway for the clean energy workforce to nearly double from around 440,000 in 2023 to around 860,000 jobs supported across clean energy sectors and their supply chains by 2030, in order to deliver our Clean Energy Superpower Mission. These figures include hydrogen jobs.
- In the UK, hydrogen could support 6,500-11,500 jobs, and support £300-600m in Gross Value Added (GVA), by 2035.
- We have provided £400,000 of funding to Cogent Skills to deliver a Hydrogen and Carbon Capture Skills Accelerator that will begin designing a comprehensive hydrogen and CCUS curriculum, with work starting in September 2025. Industry will play a central role in shaping this work, including by co-developing curriculum content and embedding industry expertise to ensure training is aligned with real-world needs.



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- Initial projects (e.g. HAR1) are already delivering investment and jobs, laying the foundation for long-term growth. Projects from the first Hydrogen Allocation Round are set to create over 600 direct jobs, attracting over £400m of private investment between 2023-26 alone.
- Alongside other clean energy sectors, Hydrogen and CCUS offer new opportunities for North Sea workers, creating high-quality jobs that draw on the UK's longstanding strengths in engineering, innovation and high-value technical design.
- Analysis by Robert Gordon University has found that the UK's oil and gas workforce has skills with medium or high transferability into hydrogen and CCUS.

4. Events and Solicitations

- [7th UK CCUS & Hydrogen Decarbonisation Summit](#) (10 – 11 February 2026)
- [Hydrogen UK Annual Conference](#) (10 – 11 March 2026)

5. Investments: Government and Collaborative Hydrogen and Fuel Cell Funding

- Government has published a new [Industrial Strategy](#) to drive long-term, sustainable, inclusive and secure growth by securing investment into crucial sectors of the economy. The Industrial Strategy, through the [10 Year Clean Energy Industries Sector Plan](#) (CEI), backs hydrogen as a frontier technology, and provides a clear mission to drive investment certainty.

Overview of CEI Sector Plan

Deployment

- **We are providing further deployment certainty via the Hydrogen Allocation Rounds (HARs)**, which allocate revenue support to non-CCUS enabled hydrogen production projects. We have shortlisted 27 projects for HAR2 due diligence and aim to confirm which projects are successful in this round by early 2026.
- **Future HARs:** We are aiming to launch HAR3 by 2026 and HAR4 from 2028.

Infrastructure

- **We are working to establish the UK's first regional hydrogen network from 2031, supported by over £500m (\$660m) of government support for hydrogen infrastructure.** This network will facilitate the production, storage and transportation of low-carbon hydrogen to support its use in key sectors locally. We will announce further details of the allocation process in the Hydrogen Strategy. Starting with supporting a single network now sets industry up to succeed and will allow for lessons to be learnt for future deployments.



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- **New investment rounds:** We will aim to launch the first transport and storage allocation rounds in 2026, and our new Hydrogen to Power business model will be launched in 2026.

Supply chains:

- **A comprehensive Public Financial Institution offer** has been set out in the Clean Energy Industries Plan to crowd private investment into sustainable supply chains in the UK. This will align with frontier industries identified in the Plan, including hydrogen. The offer set out in the CEI includes:
 - **A new £1bn (\$1.3bn) Clean Energy Supply Chain fund aligned with the Clean Energy Industries Sector Plan**, which will offer support to companies who have significant potential to grow supply chains, and demonstrates our commitment to supporting UK supply chains.
 - Empowering the National Wealth Fund (NWF) with a total £27.8bn (\$36.5bn) in capital to enable it to take on higher-risk investments, including equity. It will invest in capital intensive projects, businesses and assets, **with at least £5.8bn (\$7.6bn) targeting carbon capture, low carbon hydrogen, gigafactories, ports and green steel over this Parliament.**
 - **Launching a £4bn (\$5.3bn) British Business Bank Industrial Strategy Growth Capital initiative** to deploy more capital to target the scale-up gap.
- To drive catalytic public investment, the Industrial Strategy sets out that we are building on the success of the CfD Clean Industry Bonus. **We are considering expanding this to hydrogen and will consult on any proposals.**

6. Regulations, Codes & Standards, and Safety Update

Regulations

- In July 2025, government published a [consultation on the Hydrogen Economic Regulatory Framework](#).
 - It set out proposals on balancing, system operation, supply, other licensable activities, and the Hydrogen Network Code.
 - Consultation closed in September 2025. Government response will be published in due course.
- In July 2025, government published a consultation on Hydrogen Blending into the gas transmission network.
 - It seeks view on the potential strategic advantages, technical and economic implications of enabling blending, to help inform the assessment of transmission-level blending.
 - Consultation closed in September 2025. Government response will be published in due course.
- UK Civil Aviation Authority - [Hydrogen Challenge](#)
 - With government funding confirmed for the 2025/26 financial year, the UK's Civil Aviation Authority has expanded its regulatory sandbox for hydrogen technologies in aviation. This is to support development of a proportionate regulatory framework and encourage investment in this nascent technology.



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Standards

- Amendment of PAS 4444:2020+A2:2026, Hydrogen-fuelled gas appliance – Guide
 - o Intention is to update PAS 4444:2020+A1:2021 to address the three following issues:
 - i. Flash back prevention – addition of recommendations and guidance for OEMs to ensure any hydrogen appliance cannot flash back into a gas carcass that contains air/hydrogen mixtures. This will reflect recent R&D learnings, and aligns with references to the issue of flash back in PAS 4445, Large hydrogen-firing equipment and hydrogen conversion for large gas-fired equipment – Code of Practice
 - ii. Supply test pressures – alignment of the supply/test pressures with PAS 4441, Components used in hydrogen gas metering – Specification
 - iii. Conflicts with new standards – addressing any identified conflicts with the following two new standards where necessary:
 - 1. BS EN 15502-1, Gas-fired heating boilers – General requirements and tests
 - 2. PD CEN/TS 15502-3-1, Gas-fired central heating boilers – H2NG and ACCF – Expansion of EN 15502-2-1:2022
- Public consultation for this amendment ended in September and we expect publication for the new version to be ~February 2026.