

Manifesto



# Hydrogen UK Manifesto

An agenda for the  
2025-2030 term



“Hydrogen is pivotal for the clean energy transition and energy security because it offers a versatile, low-emission solution that can decarbonise multiple sectors that electricity can’t, while providing a reliable and sustainable energy source for the future. The new government must prioritise hydrogen development to ensure we harness its full potential and lead the way in global clean energy innovation.”

— *William Mezzullo, VP of Hydrogen UK*

# Introduction

## Introduction

**Hydrogen presents the UK with a substantial opportunity to drive economic growth and secure skilled jobs, by leveraging our natural geological and geographical advantages, robust supply chain, and existing energy expertise. Hydrogen UK’s most recent Economic Impact Assessment estimates that the hydrogen sector in the UK could support approximately 30,000 direct jobs and contribute more than £7 billion gross value added annually by 2030. On a global scale, the hydrogen market is projected to be worth \$2.5 trillion by 2050. With international competition increasing, the UK must act now to capitalise on this potential.**

These projections are supported by a recognition that hydrogen is one of the key solutions to decarbonising the UK economy, complementing other low-carbon solutions such as electrification, carbon capture, biofuels, and energy efficiency. Additionally, hydrogen will play a vital role in enhancing the UK’s energy security by storing domestically produced energy to balance intermittent renewable sources like wind and solar. As a critical component of the clean energy transition, hydrogen is indispensable to achieving net zero.

As it stands, the UK is well placed to capitalise on the hydrogen opportunity and emerge as a global leader. We have made early strides in establishing a framework

for hydrogen development, with various pilot projects and strategic investments already underway. However, the next five years will be critical for the sector as we move from strategy and planning to development and delivery. It is imperative to get the first low-carbon production projects over the line and into construction as a matter of urgency, and then deliver substantial infrastructure development, regulatory clarity, and sustained financial support to scale-up production and distribution. A new Government presents an opportunity for policymakers to solidify commitments and accelerate the deployment of hydrogen technology, ensuring the UK remains competitive in the global race.

Our manifesto outlines policy recommendations for the new UK Government to take across production, distribution and storage infrastructure, end use applications, trade and beyond, which will support a thriving British industrial base that creates jobs and growth for British people. To achieve this, the UK hydrogen industry calls on policymakers to speed up the deployment of hydrogen through the recommendations set out in this Manifesto.



**Clare Jackson**  
Chief Executive  
Hydrogen UK



# First 100 Days

## First 100 Days

- Ensure that first-of-a-kind hydrogen projects under Hydrogen Allocation Round 1 can progress to final investment decision immediately, by overcoming issues presented by the Low Carbon Hydrogen Agreement and showing reasonable flexibility on detailed project specific points. This is mission-critical to getting the industry moving, and providing learnings which will support future successful hydrogen allocation rounds.
- Immediately fund projects within Track-1 of the Cluster Sequencing Process and announce successful Track-1x and Track-2 Projects.
- Expedite the first allocation rounds of the Hydrogen Storage Business Model and Hydrogen Transport Business Model, to provide clarity on the regions and projects that will be selected.
- Introduce a ministerial role with direct responsibility for hydrogen, to facilitate strategic joined-up decision making within government and drive progress. Alternatively, introduce an Office for Hydrogen, cutting across the Department for Energy Security and Net Zero, Department for Transport, Department for Business and Trade and other Government bodies, in the style of the Office for Zero Emissions Vehicles.
- Adopt a single standard (i.e. the Low Carbon Hydrogen Standard) for use across the departments responsible for supply and demand, so that there is a single consistent definition of low carbon hydrogen across all government support mechanisms.
- Re-iterate the commitment to future hydrogen allocation rounds and release the consultation on the design of the hydrogen funding mechanism. Providing funding certainty for hydrogen support schemes is essential for instilling investor confidence across the sector.

“Creating a hydrogen economy in the UK is about people and places. It’s about making sure that we decarbonise the energy-intensive industries and transport systems that are at the heart of regional economies around the UK, it’s about making sure we make the most of the world class offshore wind and renewable energy resources that provide secure and low-cost energy for our communities and businesses, and it’s about making sure we capitalise on the exceptional universities around the country.”

— *Olivia Breese, VP of Hydrogen UK*





## Production

Support a technology-agnostic production approach that achieves the UK's 2030 minimum 10 GW target of low carbon production and lowers subsidy cost for future production projects. By developing all production methods in tandem, the UK has an opportunity to deliver faster, deeper decarbonisation and capture the economic value associated with hydrogen.

- Deliver on the Government's commitment to support 875MW of low carbon hydrogen production through Hydrogen Allocation Round 2, to achieve a minimum 1GW target of electrolytic hydrogen in production or construction by 2025.
- Review policies and regulations impacting on electrolytic hydrogen production, with a view to ensuring projects can access the lowest possible cost electricity to reduce hydrogen production costs. Such a review should consider the case for amending the requirements of the Low Carbon Hydrogen Agreement and the Low Carbon Hydrogen Standard, to ensure the Hydrogen Production Business Model scheme provides adequate risk sharing, promotes subsidy cost reductions, and encourages a market price for hydrogen.
- Commit to launching Hydrogen Allocation Round 3 and Hydrogen Allocation Round 4 in 2025 and 2026 respectively, and annual hydrogen allocation rounds subsequently.
- Implement a review of the planning and permitting framework to accelerate hydrogen deployment, with the potential for a commitment to maximum timelines for decisions on project reviews.
- Accelerate work to develop the funding mechanism and set out a long-term spending envelope for hydrogen business models to ensure financial support schemes are adequately funded.
- Progress gas distribution network hydrogen blending to mitigate demand risks for early hydrogen production projects and enable strategically located electrolytic projects to support the deployment of renewable electricity generation assets. Continue to work with industry and EU partners to enable transmission level blending in such a way that maintains domestic industrial operations and international gas trading.
- Consult on the requirements for future rules governing international trade of hydrogen and hydrogen derivatives. Collaborate with international partners to ensure mutual recognition of hydrogen standards including certification and alignment on the environmental impact of fugitive emissions.
- Allow risk taking intermediaries in the Hydrogen Production Business Model to unlock transport applications, support research, development, and innovation, and encourage the development of a liquid market.





# Networks & Storage

## Networks & Storage

Unlock necessary capital investment, and create regulatory frameworks for crucial hydrogen storage and network infrastructure, enabling the transportation of hydrogen, and providing long-duration, large-scale storage to balance energy supply and demand.

- Establish clear, measurable targets for future hydrogen transport and storage allocation rounds along with a detailed timeline for allocation rounds up to 2030 and beyond. This will provide certainty for investors and stakeholders, facilitating long-term planning and investments in hydrogen transport and storage projects.
- For hydrogen storage, set an ambitious capacity target for the first Hydrogen Storage Allocation Round, one that supports rather than constrains the deployment of hydrogen in industry and power. In addition, nominate the two regions that will be awarded contracts via the first Hydrogen Storage Allocation Round.
- Commit to the development of a core network of 100% hydrogen pipelines linking regional clusters, enabling construction to commence by 2026 at the latest. This dedicated hydrogen pipeline network is essential for connecting supply with demand and will be critical to ensuring the efficient transport of hydrogen across the UK, as well as abroad.
- Provide more guidance on how the Hydrogen Production Business Models, Hydrogen to Power and Hydrogen Transport Business Models will interact, with more clarity on commercial arrangements. Clear alignment and understanding of the business models and incentives will attract investment and streamline development of hydrogen supportive infrastructure. This will ensure that production and distribution are developed in a co-ordinated manner, optimising the hydrogen value chain.
- Undertake comprehensive regulatory reform to accommodate hydrogen use in existing networks and develop a specialised offshore licensing regime for hydrogen projects. As current regulations do not adequately support this, the reforms will remove barriers, enabling faster and more efficient project development, ensuring that hydrogen can be integrated into the existing energy system.
- Coordinate widely across key energy sector stakeholders to define the role of the National Energy System Operator, ensuring it includes and clarifies its responsibilities for hydrogen infrastructure planning. A clearly defined role for the National Energy System Operator will ensure that hydrogen infrastructure is planned in a holistic, integrated way alongside electricity. This will optimise resource use, reduce costs, and enhance the resilience, security, and efficiency of the overall energy system.
- To best position the UK as a future hydrogen trade hub, invest in hydrogen imports and exports to kickstart trade and stimulate investment in infrastructure.





## Demand

Achieve active deployment of hydrogen technology across various end uses by 2030, by realising the necessary policy frameworks as soon as possible. Supporting a high level of aggregate demand for hydrogen will enable the development of the full value chain.

### Power

- Set an ambitious target for hydrogen-to-power deployment by 2035, with a clear division between new builds and retrofitted power stations, to coincide with the next Government's target date to decarbonise the UK electricity grid. This defined target will drive investment and innovation in hydrogen-to-power.
- Implement reforms to the capacity market through the Review of Electricity Market Arrangements, to provide a long-term support option for hydrogen-to-power stations.
- Prioritise the development and deployment of 'first-of-a-kind' hydrogen power stations, to inform the roll-out of a fleet of hydrogen-to-power stations. These early projects will provide valuable insights and reduce risks for subsequent developments.
- public procurement of products made with low-carbon fuels, and the use of Carbon Contracts for Differences. Ensure that such interacting policies are supportive of demand-side growth and remove barriers to deployment.
- Explore the use of mandates on low-carbon requirements for industry alongside improvements to the business models to make it easier for industrial users to sign offtake agreements.
- Capex funding should be made available to support first mover industrial fuel switching to hydrogen. Funding should be aligned with the timing of hydrogen production business model, and lessons learned shared publicly to accelerate the deployment of hydrogen within industry.
- Ensure that the roll-out of hydrogen fuel-switching in industry is done in collaboration with the development of hydrogen transport and storage infrastructure, to ensure that industrial decarbonisation is supported outside of the clusters.

### Industry

- Ensure that a UK Carbon Border Adjustment Mechanism is implemented as soon as possible to avoid imbalance with our largest trade partner, the EU. Take adequate interventions to ensure that the UK Emissions Trading Scheme is providing a strong market signal for low-carbon fuel switching.
- Introduce further support to facilitate hydrogen offtake agreements, such as a low-carbon industrial product certification,



## Transport

- Publish the long-awaited Low Carbon Fuels Strategy with a clear role articulated for hydrogen.
- Give low carbon hydrogen-fuelled vehicles and machinery the same recognition and access to funding as other low carbon technologies for the decarbonisation of transport.
- Introduce short-term measures to help accelerate the uptake of hydrogen fuelled vehicles and machinery.
- Publish a heavy goods vehicle and bus infrastructure strategy and ensure that this includes a target of 50 hydrogen refuelling stations by 2035, underpinned by a strategic spatial plan.
- Building on the Tees Valley project as a model for deploying heavy goods vehicles alongside hydrogen production and refuelling stations, support the development of regional hydrogen transport hubs across the UK. This should consider additional benefits including cross-modal transport applications, and wider industrial decarbonisation. Support programmes should have sufficient flexibility to manage the risks of scaling hydrogen mobility infrastructure and access to vehicles, and closely align with other business models.
- Place hydrogen at the centre of the update to the Jet Zero Strategy, due in 2027, with a greater emphasis on the infrastructure needed to support commercial hydrogen-fuelled aviation.
- By 2030, support the deployment of multiple domestic sustainable aviation fuels production projects, with suitable mandates and revenue certainty mechanisms to ensure the UK and UK hydrogen producers captures its share of the global market.
- Continue to invest in research and development for hydrogen in aviation, including both fuels and propulsion equipment.
- Update the Clean Maritime Plan and integrate maritime into the UK Emissions Trading Scheme to function as a driver for the deployment of ships fuelled by hydrogen and hydrogen derivatives.





## Heat

- Maintain technological flexibility when making policy decisions for wider heat decarbonisation. By preserving this optionality, the government can take advantage of the whole systems benefits that a technology agnostic approach delivers, better navigate the complexities of the energy transition, respond to future developments, and increase the likelihood of successfully fulfilling its climate obligations.
- Provide industry with a clear direction of travel on hydrogen heating, giving investors greater clarity to the future of domestic heating.
- Clarify the nature of the 2026 decision on hydrogen heat, along with the decision-making criteria, timelines and evidence that will be relied upon.

## Jobs and Skills

- Set a voluntary ambition of 50% UK local content across the hydrogen value chain from 2030.
- Continue to progress the Green Industries Growth Accelerator Scheme, and award funding to strategic supply chain projects before the end of 2024.
- Accelerate targeted public sector finance into UK supply chain companies, supporting them to secure the financing options needed to scale.
- Publish a green jobs plan – a roadmap to deliver a skilled and sufficiently sized workforce for net zero, including hydrogen.







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