

XOSERVE
DELIVERING
DECARB

September 2026

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01 Notable news

NESO submits options for first Strategic Spatial Energy Plan

NESO has submitted its Strategic Spatial Energy Plan (SSEP) Pathway Options Report to the Secretary of State, outlining six potential pathways for Great Britain's future energy system. The options reflect different trade-offs around cost, land use, and emerging technologies, informed by more than 180 engagement events involving over 250 organisations.

Following the Government's selection of a preferred pathway, NESO plans to consult on a draft SSEP in early 2027, with publication by the end of 2027 expected to underpin future national and regional energy system planning.

Read the submission letter [here](#).

Phase two of 350-mile hydrogen network advances

National Gas has commenced the design of Project Union: St Fergus to Teesside, the second phase of its proposed national hydrogen network. The 350-mile route would connect Teesside with St Fergus in Scotland, forming part of a planned 1,500-mile underground hydrogen network linking major industrial regions across Great Britain.

The network is intended to supply low-carbon hydrogen to industry, power generation, and storage sites, supporting the decarbonisation of hard-to-electrify sectors while strengthening energy security. Analysis by National Gas suggests the wider Project Union network could support around 3,100 jobs at peak construction and deliver £300 million in annual direct gross value added to the economy. It is suggested that the national hydrogen sector has the potential to provide billions in annual economic value to the UK.

Read the full story [here](#).



01 Notable news

Offshore CO₂ pipeline construction begins

The Northern Endurance Partnership has marked the start of offshore construction for its 136km CO₂ pipeline, a key component of the East Coast Cluster's carbon capture and storage (CCS) infrastructure. The pipeline will transport captured CO₂ from industrial sites across Teesside and the Humber to the Endurance site beneath the North Sea for permanent carbon storage.

During the offshore campaign, the project will use almost 3,000 tonnes of marine biofuel and deploy environmental monitoring technology for the surrounding marine environment. The milestone brings one of the UK's first large-scale CCS networks a step closer to operation.

Read the full story [here](#).

Humber Hydrogen calls for Government backing of regional hydrogen cluster

Humber Hydrogen has called on the UK Government to support the Humber as the location for Britain's first regional hydrogen cluster. The industry coalition says the project could help decarbonise energy-intensive sectors including steel and chemicals, while supporting the development of hydrogen production, transport and storage infrastructure.

Humber Hydrogen estimates the project could unlock up to £15 billion of investment and support both existing and new jobs across the hydrogen value chain.

Read the full story [here](#).

North Sea fields could unlock large-scale hydrogen storage

Research from Durham University suggests depleted North Sea oil and gas fields could provide 3,659 TWh of hydrogen storage capacity. This is equivalent to more than seven times the UK's expected annual electricity demand in 2040.

The study argues that repurposing these fields, and expanding hydrogen storage, could provide the seasonal storage needed to balance renewable generation and reduce reliance on gas-fired power generation. It also highlights opportunities to reuse existing infrastructure and skills from the North Sea energy industry.

Read the full story [here](#).

01 Notable news

CCSA calls for faster industrial decarbonisation

The Carbon Capture and Storage Association has called for faster action to decarbonise UK industry following the country's hottest summer on record.

The CCSA highlights that industrial, fuel supply, power and waste sectors account for 30% of UK emissions, and highlighted carbon capture, utilisation and storage (CCUS) as a key technology to decarbonise these hard-to-electrify industries. The CCSA discussed progress on CCUS with more than 100 projects in development, and potential capacity to capture over 77 MtCO₂ per year.

Read the full story [here](#).

Peak Cluster seeks land access for CCS pipeline surveys

The Peak Cluster Partnership has requested access to council-owned land in Wirral to carry out surveys for its proposed £5 billion CCS pipeline network. The project would transport captured CO₂ from cement and lime plants in Derbyshire and Staffordshire to offshore storage beneath the Irish Sea.

Read the full story [here](#).



Want to dive deeper into CCUS?

Listen to our latest podcast episode with Mark Sommerfeld, UK Director of the CCSA where we discuss why there's no route to net zero without CCUS, the projects that are now under construction across the UK, and what industry needs to build a self-sustaining CCUS market.

[Listen here](#)

01 Notable news



Open letter calls for carbon storage obligations

An open letter signed by 160 individuals including academics, civil society representatives and environmental professionals has called for carbon storage obligations to be attached to any future oil and gas developments in the UK.

The letter argues that developing geological CO₂ storage is necessary alongside continued fossil fuel use and could help unlock private investment in CCS and carbon dioxide removal. It highlights the UK's substantial offshore storage potential and argues that a rising storage obligation could support delivery of future Carbon Budgets.

Read the full letter [here](#).

Cadent begins work to replace 65-year-old gas pipes in Peterborough

Cadent is replacing 700 metres of ageing gas mains in Peterborough, upgrading pipes laid in the 1960s with modern plastic alternatives that will support the use of renewable gases such as biomethane.

The eight-week project across Flaxland, Hudds Meadow and Rightwell East is part of a £123 million investment to upgrade more than 395km of gas network across the East of England, while also reducing methane emissions.

Read the full story [here](#).

02 Spotlight on...NESO's 10 Year Outlook

NESO's latest 10 Year Outlook was published this month and provides an important snapshot of how Great Britain's energy system could evolve over the next decade.

For the gas sector, the forecast highlights a transition that is likely to be more gradual than previously expected, with gas continuing to play an important role in supporting energy security and flexibility while lower-carbon gases become increasingly significant.

For the green gas sector, three areas stand out: the continued role of gas, strong growth in biomethane, and greater uncertainty around hydrogen.

Gas remains part of the energy mix

The outlook reflects slower-than-expected progress on electrification, meaning that we are now firmly in NESO's 'falling behind scenario' as gas is expected to remain an important component of the energy system over the coming decade.

As renewable electricity generation increases, flexibility will become increasingly important, particularly during periods when wind and solar generation is low. Gas-fired generation will continue to provide this flexibility, helping maintain security of supply as the electricity system changes.

However, the outlook points towards a changing gas system, where declining natural gas demand is accompanied by a growing role for lower-carbon gases and new forms of flexibility.

Biomethane set to double

One of the clearest positive signals for the green gas sector is NESO's forecast for biomethane. According to the outlook, biomethane use is expected to increase from around 7 TWh today to almost 15 TWh by 2036. This significant increase highlights the potential for biomethane to become an increasingly important part of the UK's future gas mix.

The growth of biomethane also demonstrates the continuing value of existing gas infrastructure. As a renewable gas that can be injected into the gas network, biomethane provides a way of reducing the carbon intensity of gas supply while making use of existing networks.

However, delivering this potential will depend on continued investment and sufficient policy certainty.

02 Spotlight on...NESO's 10 Year Outlook

Hydrogen faces a more uncertain outlook

NESO's forecast shows hydrogen supply roughly halving compared with last year's outlook in FES 2025, reflecting slower progress in both demand and supply and continued uncertainty around policy.

This is a clear proof point that production cannot develop at scale without sufficient demand, and that potential users require confidence that hydrogen supply, infrastructure, and pricing will be available.

The forecast reinforces the importance of policy decisions in unlocking investment across the hydrogen value chain. Greater clarity around the UK's Hydrogen Strategy and the future framework for hydrogen infrastructure could help provide the certainty needed for projects to progress.

The outlook also provides an indication of how hydrogen could begin to interact with the existing gas network. While NESO

forecasts limited hydrogen blending from 2029, it projects an increase to almost 0.5 TWh by 2035.

A changing role for the gas network

Taken together, NESO's outlook suggests that the future of gas is likely to be less about the volume of natural gas consumed and more about how the gas system contributes to a wider, integrated energy system.

Biomethane is expected to grow, hydrogen remains part of the longer-term picture, and gas continues to provide flexibility and security as the electricity system becomes increasingly dependent on renewable generation.

For the green gas sector, this reinforces the importance of taking a whole-system approach. Electricity, gas, hydrogen, storage and biomethane will increasingly need to work together rather than being considered in isolation.



03 Policy milestones

The path to a decarbonised energy system continues to be shaped by steady policy and regulatory developments. Here we highlight the latest funding allocations, evidence publications, and consultation outcomes impacting the sector's transition.



Ofgem's Strategic Direction Statement for industry codes

Ofgem has [published](#) its second Strategic Direction Statement, setting out updated priorities for changes to the energy industry codes over the next five years. The statement identifies areas requiring action to support the energy transition, including biomethane, hydrogen infrastructure, network planning and low-carbon technologies. It also introduces clearer prioritisation of code changes through 'Act now', 'Think and plan' and 'Listen and wait' categories, helping industry prepare for upcoming changes.

Government launches £28m ultra-long duration energy storage challenge

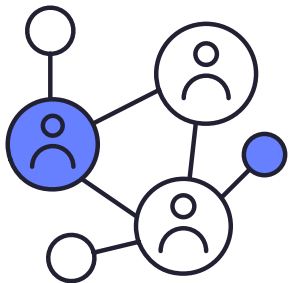
The Government has [launched](#) a £28 million Ultra-Long Duration Energy Storage Challenge to support technologies capable of storing clean energy for more than 100 hours. The programme will focus on advanced batteries and underground hydrogen storage, with hydrogen systems potentially reducing energy system costs by £14–50 billion between 2035 and 2050. The initiative aims to improve energy security, reduce reliance on gas-fired generation, while reinforcing the strategic role hydrogen storage could play in a future low-carbon energy system.

03 Policy milestones

Upcoming opportunities to influence energy policymaking

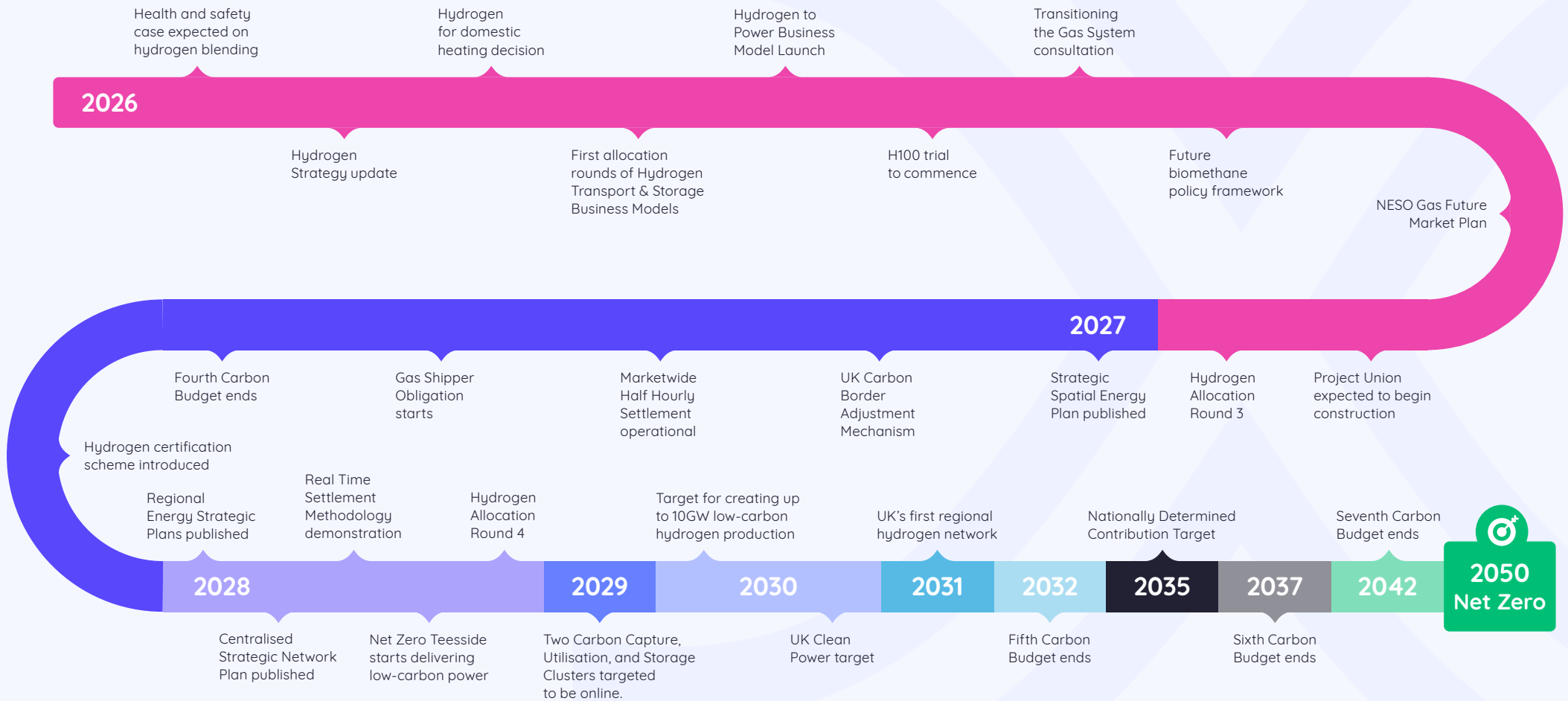
The following consultations and calls for evidence offer opportunities for stakeholders to help shape the future of hydrogen, energy security and clean energy innovation.

- 1. Fracture and fatigue assessment – [IGEM](#)** is seeking comments on the IGEM technical standard IGEM/TD/24 - Fracture and fatigue assessment of natural gas pipelines to be repurposed for hydrogen service. Comments can be submitted until 5 November.
- 2. Hydrogen gas quality specification – [IGEM](#)** is seeking comments on the IGEM technical standard IGEM/H/4- Hydrogen gas quality specification for conveyance in a dedicated hydrogen gas network. Comments can be submitted until 5 November.
- 3. Vision for an AI-enabled clean energy system – [DESNZ](#)** is seeking evidence on how artificial intelligence can transform the energy system, including opportunities, risks, and barriers to adoption. Responses can be submitted until 6 November.



03 Policy milestones

Key Government energy policy/regulatory milestones:



04 Things to look out for



October's DeliveringDecarb edition will keep you informed of any new announcements, consultations or research on the potential future role and benefits of biomethane, hydrogen, gas blending and CCUS. For now, here are some upcoming publications to keep an eye on in the near term:

Expected in the coming months:

- UK Government's updated hydrogen strategy
- Gas Shipper Obligation consultation response
- Hydrogen blending into the GB gas transmission network response
- Consultation on hydrogen for home heating
- Hydrogen transport and storage market framework consultation response
- Future framework for biomethane production
- Transitioning the Gas System call for evidence
- Network investment and cost recovery call for evidence

If you can't wait until next month's edition of DeliveringDecarb, be sure to [follow Xoserve on LinkedIn](#) for comments and key takeaways as they happen.

05 Dates for your diary

Here are some upcoming dates in October when you can meet the Decarbonisation Team. We'd love to see you there.

GDNs Monthly Decarb Meeting



Online

Monday 5 October

REA Green Gas Day



Birmingham

Thursday 8 October

To join our quarterly Green Gas Implementation Forums or enquire about our meetings above, please email decarbonisation@xoserve.com.



06 Keeping in touch

If you've found any of the topics in this month's newsletter particularly interesting, please get in touch or share your comments on [LinkedIn](#), tagging @Xoserve.

You can also delve deeper into decarbonisation with our [Decarb Discussions podcast](#), which covers topics from different industry perspectives. To get involved and have your voice heard on our podcast channel, please get in touch.

To help you stay ahead of the curve, we've created the Decarbonisation Knowledge Centre, for the latest news, exciting new projects, and important policy updates. We're confident you'll find a wealth of valuable resources on decarbonisation.

If you'd like to suggest any ideas, please contact: decarbonisation@xoserve.com



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