DELIVERING DECARB

October 2025

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It's been a busy and diverse month, with a wide range of policy, innovation, and industry developments relevant to Xoserve stakeholders.

While the Clean Energy Jobs Plan spotlighted the role of the hydrogen industry within the UK's economic growth story ahead of next month's Budget, and National Gas and Centrica's successful hydrogen blending trial proved the viability of decarbonising the UK's gas networks; all eyes will be on the highly anticipated update to the UK Hydrogen Strategy, which is set to be published in early November and will provide a clear roadmap for growing the UK zero carbon gas industry.

Keep an eye out for the relaunch of the Xoserve Decarbonisation website, which is being updated to provide further details of the key pillars of our work on behalf of the industry.

01 Notable news

Hydrogen spotlighted in Clean Energy Jobs Plan

The Department for Energy Security and Net Zero (DESNZ) has published its long-awaited Clean Energy Jobs Plan, aiming to support an additional 400 thousand highly skilled jobs in the low carbon economy by 2030.

Hydrogen and carbon capture and storage (CCS) are repeatedly spotlighted throughout as priority opportunities to rapidly scale-up UK low carbon industries; increasing the pace of decarbonisation; boosting energy security; and embedding sustainable growth across the UK economy.

Further details on the specific strategy for boosting jobs within the UK hydrogen economy are expected within the upcoming updated Hydrogen Strategy.

You can review and download the full Clean Energy Jobs Plan here

Warm Homes Plan delayed

The DESNZ has confirmed that publication of the Warm Homes Plan will be delayed a second time.

Initially expected in July, the Cabinet Office requested the first delay to allow additional justification for the lack of inclusion of hydrogen heating solutions.

This second delay follows shortly after the Government reshuffle in September, which included the appointment of a new Minister for Energy Consumers, Martin McCluskey MP.

Publication is now expected in early November, aligned with the Future Homes Standard and prior to the Budget on Wednesday 26 November.

Get the full story here

UK Government energy trends report focuses upon hydrogen

The DESNZ has published official statistics for UK hydrogen production and demand from 2022-2024. Key headlines are:

- Hydrogen production and demand –
 Between 2022 and 2024, the UK produced
 around 14TWh of hydrogen annually,
 supplying 14TWh of demand.
- Format Blue hydrogen accounts for the majority of production, with more than 80% produced as an industrial byproduct of refining or chemical processes.
- Sectors Refineries account for 70% of total hydrogen demand, with the UK chemicals industry accounting for 27%.

Review the full statistical report here

01 Notable news

Independent Review of Greenhouse Gas Removals published

The Government has published the independent review of greenhouse gas removal options, led by former Labour MP and Shadow Energy Minister Dr Alan Whitehead CBE.

The report spotlights a "bewildering array" of options for the UK to absorb atmospheric carbon including nature and technological-based solutions.

The report makes five headline recommendations:

- Strategy The UK Government to develop and publish a more coherent greenhouse gas removals strategy
- 2. **Responsibility** Establish an Office for Greenhouse Gas Removals to coordinate implementation of the strategy

- **3. Market** The UK Government should commit to minimising the use of imported biomass
- 4. Aviation Replace the Sustainable Aviation Fuel Mandate with a more comprehensive Net Zero Aviation Mandate, driving innovation and demand for greenhouse gas removals
- 5. **Growth** Position the UK as a global leader in greenhouse gas removals, driving sustainable economic growth.

The report includes an extensive analysis of the UK's nascent carbon capture and storage infrastructure, alongside underlining the value of biogas to rapidly decarbonise the UK economy.

You can review the full independent report here



01 Notable news

Ofgem Cycle 3 innovation projects funded

The energy regulator has awarded funding for three gas infrastructure decarbonisation projects through its Cycle 3 of its Strategic Innovation Fund within the current RIIO-G2 regulatory period:

- North Yorkshire hydrogen storage A
 consortium of Centrica, Northern Gas
 Networks, Third Energy Onshore, and the
 University of Edinburgh have been awarded
 funding to investigate the viability of a
 geological hydrogen storage facility using
 depleted hydrocarbon reserves and aquifers
 beneath Knapton, Vale of Pickering, and
 North Yorkshire.
- 2. Green gas access An SGN innovation project examining new technologies to dynamically model in real time the impact of introducing different blends of biogas and biomethane into the gas distribution system.

 Grid connection Plan B - Another SGN project exploring how networks can facilitate gas-topower solutions for large energy users, such as datacentres.

These Ofgem funded projects demonstrate how the industry is continuing to innovate and decarbonise.

You can review the Centrica project here, and the SGN projects here

Hydrogen turbine test site

Siemens Energy has broken ground on a cutting edge combustion test facility in Berlin.

The facility will be used to develop and test a new generation of large gas turbine engines fuelled entirely by hydrogen. The testing site will be fully operational by autumn 2026, and is part of the multi-million pound "Mission H2 Power" collaboration between SSE, Equinor, and Siemens Energy.

The facility will be used to develop a hydrogen-capable version of the SGT5-9000HL gas turbine for use at SSE's Keadby 2 power station in North Lincolnshire, enabling zero emission electricity generation.

Get the full story here

01 Notable news

North Sea carbon storage appraisal well drilled

The first North Sea Transition Authority (NSTA) licenced carbon storage appraisal well has been drilled on Hewett field in the Southern North Sea as part of the Bacton carbon capture and storage project. This is the first well of its kind to be drilled in the North Sea as a result of the NSTA's 2023 carbon storage licencing round.

Drilling of the appraisal well began in May 2025. Data from the project will be used to inform the larger Bacton CCS project. The North Sea has the capacity to store up to 78 gigatonnes of carbon across around 100 storage wells. For reference, global carbon dioxide emissions were around 37 gigatonnes in 2023.

Get the full story here

Biomethane: Key to Northern Ireland's Energy Future

Momentum is building behind biomethane as a cornerstone of Northern Ireland's Net Zero strategy. Speaking at the ADBA Northern Ireland Conference, Minister Andrew Muir MLA reaffirmed the Government's commitment to decarbonisation, announcing over £9 million in bioeconomy funding, including support for biomethane proof-of-concept trials.

In parallel, Kinecx Energy has signed a biomethane connection agreement with Greenan Generation, paving the way for renewable gas to be injected directly into the local network. The proposed 500kW anaerobic digestion plant at Carmoney Road could supply around 8% of Kinecx's customer demand, setting a precedent for similar projects across the region.

Together, these initiatives signal a major step towards a cleaner, more resilient energy system for Northern Ireland.

Read both stories here and here

Arla invests in biomethane

As part of a £144 million investment in its Lockerbie cheese-making facility, Arla Foods has constructed a second anaerobic digestor using whey protein to supply biomethane to the Scottish gas grid.

Together, these digestors are expected to produce 30,500MWh of low carbon energy – enough to power more than 2,600 homes, more than all the households in Lockerbie.

Get the full story here

01 Notable news

European Biomethane week 2025 – 13-16 October

EU Commissioner for Energy and Housing Dan Jørgensen highlighted the strategic importance of biomethane to accelerating decarbonisation and reducing the continent's reliance upon imported natural gas at European Biomethane week this month.

Denmark's gas system – with biogases accounting for over 40% of those transported – was spotlighted as an example for others to follow.

As the UK gas system remains closely integrated with our EU neighbours, the push for increased biogas use over the Channel is expected to increase pressure upon UK policymakers to prioritise similar solutions.

Get the full story here

Rolls Royce unveils a new range of gas-fuelled generation for data centres

In response to exponentially growing demands for digital infrastructure driven by the boom in Al innovations, Rolls Royce Power Systems has unveiled a new range of gas-fuelled 20-cylinder MTU engines specifically designed to power data centres.

The launch of these new generation systems by Rolls Royce underlines the key role gas is expected to continue to play powering the insatiable demand for digital infrastructure globally. Speaking at the product launch, Kevin McKinney, Vice President of Powergen Sales Americas underlined this point, "We expect that natural gas will increasingly be used to meet the growing energy demands of Al data centres in the future, particularly in North America, where it is relatively inexpensive and readily available."

Looking further forward, the Rolls Royce engine designs also indicate industry preparations for decarbonising national gas systems, capable of operating using biogas, biomethane, or 100% hydrogen.

Get the full story here

02 Spotlight on... Hydrogen within transmission

Hydrogen infrastructure has been on the news agenda in October with two related stories:

• Transmission blending trial – National Gas and Centrica completed the UK's first successful hydrogen blending trial within the Transmission network, injecting 2% hydrogen into the gas grid fuelling Brigg power station. The success of the trial indicates the viability of rapidly implementing hydrogen blending across the UK gas network. Both National Gas and Centrica have called on the Government to enable 5% hydrogen blending across the UK. Get the full story here

 Hydrogen infrastructure strategic planning policy - The Department of Energy Security and Net Zero has issued a strategic policy statement instructing the National Energy System Operator (NESO) to facilitate and guide investment in hydrogen generation, storage and shipping infrastructure. You can review the full policy statement here

Together, these developments indicate both industry and the Government's ambition to accelerate the adaption and development of hydrogen infrastructure.

However, this ambition is partially undermined by Ofgem's draft RIIO-G/T3 determinations published in July, which proposed a 39% or £1.6 billion cut in regulated expenditure, including investment in preparing the transmission network for hydrogen. Ofgem's final determination is expected in December.

Meanwhile, Xoserve's Delivering Decarb team will be building upon the hydrogen blending conversation at a webinar on Tuesday 11 November. Hosted by Orlando Minervino, the session will explore the findings of Xoserve's "Managing Different Gases" research, which examines the impacts on central systems of four different decarbonisation scenarios:

- 5% hydrogen blended with natural gas
- 20% hydrogen blended with natural gas
- 100% hydrogen
- 100% non-propinated biomethane

If you would like to learn more about this, please visit our <u>website</u> where you can also register for the webinar.

03 Policy Milestones

The path to a decarbonised energy system will be marked with significant policy milestones and project developments. As the gas industry continues its efforts to transition to net zero, understanding these key events is essential. Here we highlight the key regulatory insights, policy milestones and consultations impacting the decarbonisation of gas.

Key regulatory insights

CCS projects secure investment

The UK Government has signed contracts with Heidelberg Materials UK and Protos, confirming investment in two carbon capture projects in North Wales and North West England.

These projects are the first to be funded through the Government's £9.4 billion investment in CCS confirmed in the June 2025 Spending Review. Combined they aim to capture 1.2 million tonnes of CO2 a year.

Biomethane from waste: resource framework published

The Environment Agency has published a resource framework to support the production of biomethane from waste feedstocks.

The framework explicitly states that the two acceptable end-uses of biomethane from waste are for:

- Injection into the gas grid
- As a replacement fuel for appliances using natural gas, including gas turbines for electricity generation, domestic heating, and fuel cells



03 Policy Milestones

Upcoming opportunities to influence energy policymaking

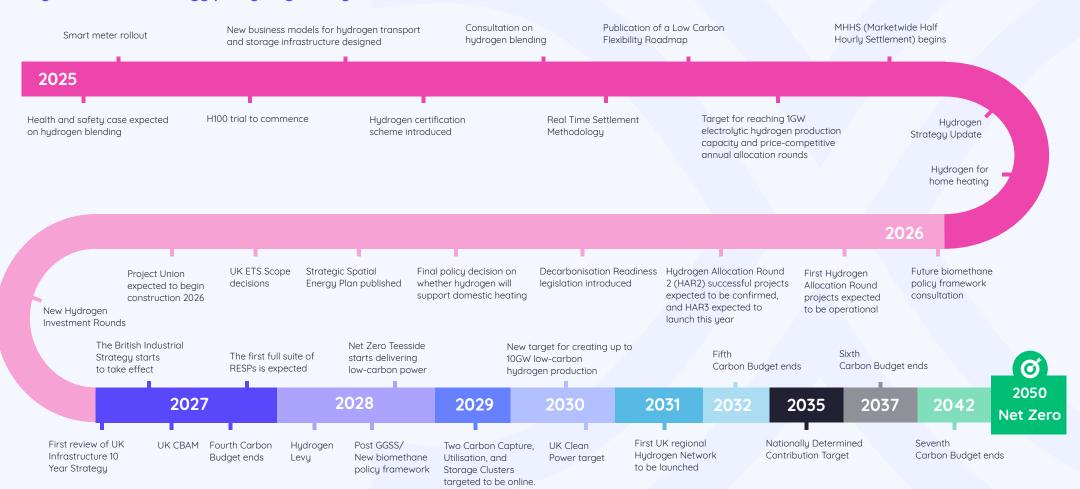
Several important consultations are currently open or closing soon, offering stakeholders a chance to provide expert input on key aspects of the decarbonisation transition:

- Changes to standard rules permits for medium combustion plant and specified generators – The Environment Agency has launched a <u>consultation</u> upon proposals to update the combustion plant and specified generation licencing regime to incorporate low carbon fuels, including hydrogen. The consultation closes on Sunday 9 November.
- 2. Hydrogen to Power and Interconnectors Capacity market consultation – The DESNZ is seeking views upon how to incorporate hydrogen fuel electrical generation into the capacity market. The call for evidence concludes on Thursday 27 November.
- 3. Regional Energy Strategic Plan (RESP) licencing modifications – Ofgem has launched a consultation on proposed modifications to gas transporters licencing regime. The RESP consultation concludes on Friday 28 November.
- 4. Sustainable, Regional Approach for the production, storage, transport and use of hydrogen as fuel The Northern Irish Department for the Economy has launched a consultation on production, storage and transport of hydrogen in the province. The consultation closes on Thursday 18 December.



03 Policy Milestones

Key Government energy policy/regulatory milestones:



04 Things to look out for

December'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 Autumn 2025:

- UK Government's updated hydrogen strategy
- Gas Shipper Obligation consultation response
- The UK Warm Homes Plan (expected during the week beginning Monday 3 November)
- Autumn Budget 2025 26th November

Expected end of 2025:

- Consultation on hydrogen for home heating
- Hydrogen transport and storage market framework consultation response
- Gas system resilience consultation
- 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 November when you can meet the Decarbonisation Team. We'd love to see you there.

Network Monthly	Monday 3 November 2025
Decarbonisation Meeting	Online
Cornwall Insight's Annual Energy Conference	Wednesday 5 November 2025
Hydrogen Information	Friday 7 November 2025
Sharing Group	Online
Managing Different	Tuesday 11 November 2025
Gases webinar	Online
Utility Week Forum 2025	Tuesday 25 – Wednesday 26 November 2025

To join our quarterly Hydrogen 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 <u>Decarb Discussions</u> 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 <u>Decarbonisation Knowledge Centre</u>, 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



Orlando Minervino
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