DELIVERINGDECARB

JANUARY 2025

xoserve

Contents

Happy New Year! Welcome to the first DeliveringDecarb newsletter of 2025.

This year is expected to be a decisive one for the gas industry and its journey towards decarbonisation. Key milestones are on the horizon, with the anticipated completion of the Energy Bill, a potential decision on hydrogen blending in domestic heating, and the launch of the much-anticipated H100 trial. These developments signal a significant step forward in shaping the future of gas and its role in the clean energy system promised by the UK Government for 2030.

Kicking off the year there has been a record-breaking achievement for renewable energy; the Hydrogen Energy Association set out its vision for the future of GB Energy; and Hygen secured significant financial backing for its multi-million-pound hydrogen project.

As stakeholders in Britain's energy system, we are focused on its evolution and future planning. The year 2025 is anticipated to mark the beginning of some significant changes that could influence the direction of the industry. We also expect to see numerous developments across the gas sector, particularly around hydrogen, and we appreciate your choice to get your news from DeliveringDecarb.

01 Notable news

02 Spotlight on...

03 Things to look out for

04 Policy milestones

05 Dates for your diary

06 Keeping in touch

xoserve

01 Notable news

The UK's electricity was the cleanest ever in 2024

In 2024, the UK achieved its cleanest year for electricity generation, according to a report by Carbon Brief. The phasing out of coal contributed to a reduction in fossil fuel electricity production, which fell to less than half of what it was a decade ago. Meanwhile, renewable energy generation has more than doubled.

The report used data from the National Energy System Operator, which showed wind generated more electricity than gas in 2024. However, it's important to note that these figures do not account for significant gas generation, particularly from combined heat and power units at industrial sites.

Overall, fossil fuels accounted for 29% of the UK's electricity in 2024, marking the lowest level on record. Despite this, the Carbon Brief report also pointed out that gas-fired power stations remained the UK's largest source of electricity, generating in total approximately 88 terawatt-hours (TWh), compared to wind's 84 TWh.

Read the full analysis

World Economic Forum sets out clean energy technology trends for 2025

The World Economic Forum (WEF) has identified four key trends in clean energy technology for this year. As well as looking ahead, the article also reflected on 2024, which saw significant investment growth in solar energy generation and improvements in energy storage.

For 2025, here are the top four trends to watch according to the WEF:

1. **Industrial policy.** The WEF anticipates that Governments will further refine energy transition policies to align with their industrial and economic goals, implementing broader and more integrated strategies focusing on job creation, investment, and advanced energy projects.
2. **Energy for AI.** The computational power required to support the growth of AI approximately doubles every 100 days. As a result, AI and data centres will become key drivers of electricity demand growth, prompting a competitive effort to locate and secure data centre sites with abundant, clean, and reliable energy supplies on a large scale. In 2025, the industry is expected to

xoserve

01 Notable news

increasingly adopt available solutions, such as energy storage, low-carbon hydrogen, and wind and solar power to power these centres.

3. **Nuclear energy.** Energy needs are increasing, and for WEP, small modular nuclear reactors and fusion present as an option to meet demand. However, many factors need to align, from skills to regulations to financing. WEF predicts this year, Government and industry will take action to accelerate the nuclear renaissance in "old" nuclear countries.
4. **R&D and innovation.** The clean energy sector will continue innovating and accelerate in 2025. Emerging technologies such as batteries, electrolysers and carbon management solutions will experience growth rates with greater urgency.

Digest the key trends in detail

Hydrogen Energy Association sets out vision for GB Energy

The Hydrogen Energy Association (HEA), which represents the hydrogen sector, has submitted a roadmap to the UK Government emphasising hydrogen's role in decarbonisation, economic growth, and energy resilience.

This roadmap presents recommendations that align with the five key functions outlined for Great British Energy. It includes plans to invest in inland hydrogen hubs and ports to facilitate hydrogen trade, as well as incentives for local power generation through the Local Power Plan.

HEA's vision aims to build clean energy supply chains in the UK by supporting initiatives such as the Green Industries Growth Accelerator, which is designed to strengthen sustainable clean energy supply chains. It also proposes collaboration with Great British Nuclear on new nuclear projects.

Access HEA's GB Energy submission paper

Trans Adriatic Pipeline starts hydrogen repurposing assessment

UK-based energy engineering company Penspen has been awarded a contract by Trans Adriatic Pipeline AG (TAP) to evaluate the feasibility of introducing hydrogen blends into the existing gas pipeline. TAP is part of the Southern Gas Corridor, which transports natural gas to Europe.

xoserve

01 Notable news

Luca Schieppati, TAP's Managing Director, commented: "TAP has the potential to become a significant contributor to Europe's goal of achieving climate neutrality by potentially supplying the EU with carbon-neutral energy sources, such as hydrogen blended with natural gas."

In the UK, Penspen supported EET Hydrogen with the HPP1 low carbon hydrogen plant, an integral part of HyNet, one of two UK Government's Track 1 clusters for industrial decarbonisation. The findings from the TAP assessment could provide valuable insights into Britain's efforts to incorporate hydrogen into its existing gas infrastructure.

Read the full story

Britain's gas storage levels dropped lower than usual after cold weather

Gas storage levels in the UK fell below the average minimum range this month due to cold weather and reduced renewable energy generation. Centrica expressed concern that gas storage suppliers' inventories were 26% lower than they were at the same time last year, leaving them around 50% full.

This statement from Centrica followed an alert from the National Energy System Operator, which urged electricity providers to take action to increase system margins. In response to the concerns, a spokesperson from the Department for Energy Security and Net Zero, along with National Gas, stated that they are confident in the sufficiency of gas supply and electricity capacity to meet demand, assuring that the storage levels "remain healthy."

Get more on the story

Hygen receives bank backing for multi-million hydrogen project

Hygen, a developer, producer, and asset owner of low-carbon hydrogen production facilities in the UK and Europe, has secured a multi-million-pound funding agreement with HSBC UK to expand the capacity of its production site in Birmingham.

The Tyseley site plays an important role in supporting the UK's hydrogen industry by supplying green hydrogen to major customers such as National Express and JCB for their decarbonisation initiatives. The funds will allow

01 Notable news

Hygen to develop more production sites across the UK.

Kevin Selleslags, Hygen CEO, said: “Securing this bank funding sends an important signal to the market about the opportunities for this technology.”

Read more on the investment

Plans to build the UK’s largest low-carbon hydrogen production plant

Essar Energy Transition (EET) has partnered with global engineering firm ENKA to build the UK’s largest low-carbon hydrogen production plant (HPP1) at the Stanlow Manufacturing Complex in Ellesmere Port, Cheshire.

The HPP1 plant is expected to have a production capacity of 350 MW and will capture approximately 600,000 tonnes of CO2 each year, with operations starting in 2026. This project is part of the HyNet Cluster, which aims to assist industrial businesses in the North West of England in decarbonising their operations, thereby protecting jobs and boosting the economy.

Discover more about the project

02 Spotlight on...

The UK Government will not enforce a universal ban on gas boilers.

Newspaper sources have reported that the Future Home Standards (FHS), expected to come into effect this year, will not include a ban on gas boilers and that the Government won't ban the sale of gas boilers by 2035.

However, a Government spokesperson stated, "It is categorically wrong to say there has been any change to the FHS. The FHS has always been a standard for new-build homes and has nothing to do with gas boilers in existing houses."

Later this year, ministers will also unveil the Warm Homes Plan, providing further details on how the transition to low-carbon heating methods will proceed. It is assumed by news sources that while gas boilers are not expected to be banned outright in new constructions, they will not comply with the minimum green energy efficiency standards that will be enforced.

Last year, regarding the 2035 emission target, Prime Minister Sir Keir Starmer remarked that while it would be "difficult," it is still "achievable." He emphasised, "It's not about telling people how to live their lives – I'm not interested in that."

Read the full story

03 Things to look out for

Next month, we will explore biomethane as our main focus topic, bringing to you any new Government or industry targets related to green gas, along with our regular updates on the decarbonisation of natural gas.

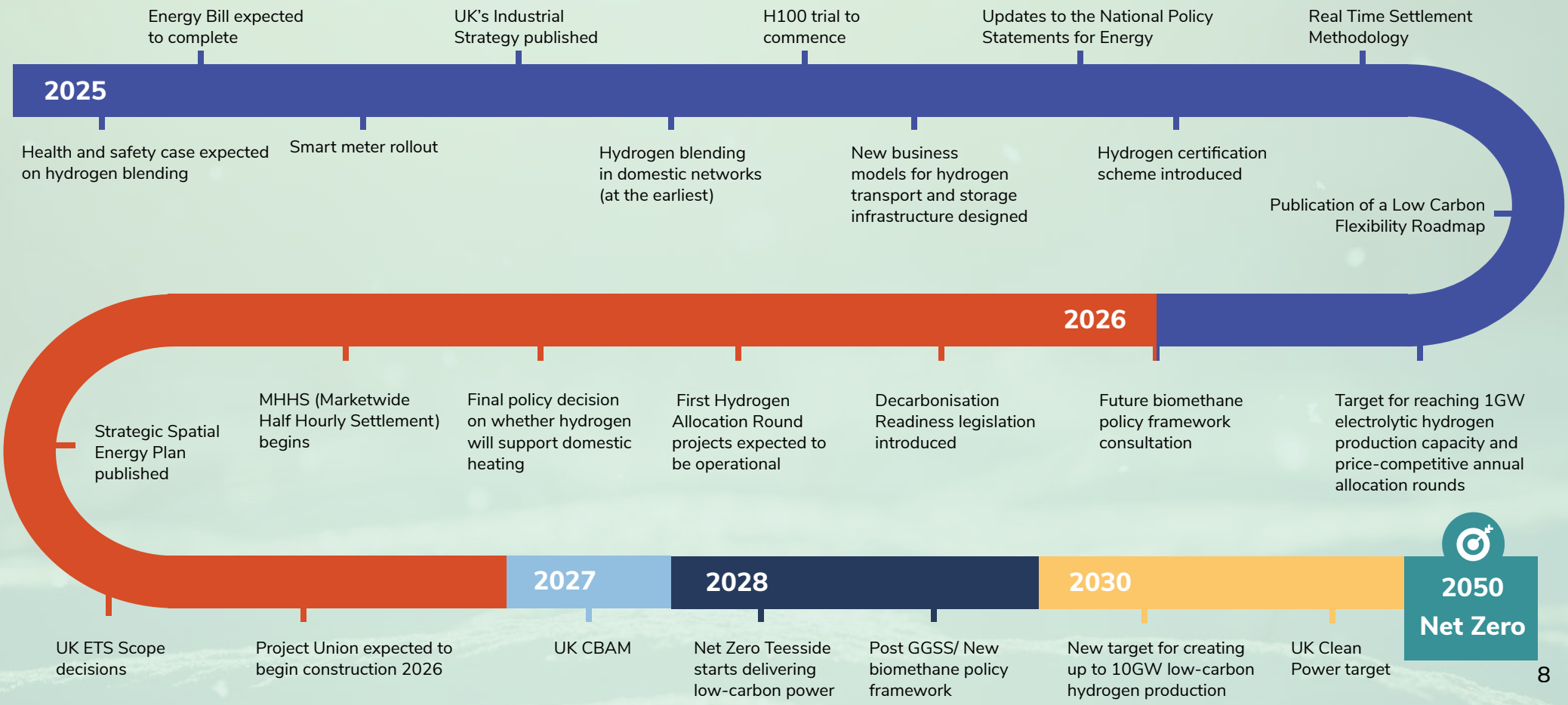
In the meantime, don't forget to check out the additional resources available in our Decarbonisation Knowledge Centre.

Listen to our podcast and learn about the role of anaerobic digestion

Read about how anaerobic digestion will help us reach net zero.

03 Policy milestones

Here are key Government Energy policy/regulatory milestones:



xoserve

04 Dates for your diary

We'd love to see you at our Hydrogen Implementation forums. To join, please email: decarbonisation@xoserve.com

DN Update	Monday 3rd February 2025	10:00 - 11:30
Hydrogen Information Sharing Group	Friday 7th February 2025	10:00 - 12:00

Come say hello

Xoserve will be attending these events, so why not join us and say hello?

6th UK CCUS & Hydrogen Decarbonisation Summit – Royal Armouries Museum, Leeds – 11th-12th February

ENA Energy Innovation Basecamp 2025 – The Birmingham Conference & Events Centre – 13th February

05 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