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Valentine's Day is often seen as a day for celebrating love and making connections. For Xoserve, the connections we're focused on are the vital links that lead us toward a decarbonised energy future. February's edition of DeliveringDecarb highlights the role of biomethane as a key connection.

Inside this issue, you won't find love notes or jewellery, but rather something far more valuable: essential information and insights to help you navigate the ever-changing landscape of decarbonising the gas industry.

First, we will swoop into an overview of industry news that happened this month, including the UK's first biomethane RGGO auction, a newly discovered gas field in Lincolnshire, and the increasing production figures for biomethane.

Later, in our spotlight section, we'll have a closer look at DNV's UK Energy Transition Outlook report to extract practical insights and data to understand the implications for the future of energy gas.

To receive our monthly newsletter straight to your inbox, please email <a href="mailto:decarbonisation@xoserve.com">decarbonisation@xoserve.com</a>

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### **01** Notable news

# The first biomethane renewable gas guarantees of origin auction held

On February 5th, the UK held its first auction for biomethane renewable gas guarantees of origin (RGGOs). The auction was managed by E-power, which also conducts auctions for power purchase agreements. Future Biogas, a UK biomethane producer, provided the certificates and set the reserve prices for the lots.

In a Q&A with Argus Media, Future Biogas highlighted the advantages of using an auction model instead of behind-the-scenes trading, citing increased transparency by allowing sellers to better understand the value of the certificates.

Read the full Q&A



# UK biomass-generated energy increased by 36.9% last year

Electricity from bioenergy increased to 9.7TWh in the third quarter of 2024, following production issues the year prior.

Analysing government data, waste-to-hydrogen company Compact Syngas Solutions found that maintenance outages at three large power stations were responsible for the fall in 2023 figures, explaining a 23% increase in electricity from bioenergy in Q3 of 2024.

Energy from plant biomass rose from 4.6 TWh in Q3 2023 - approximately 1,75% of total UK electricity consumption (262.9TWh in 2023 and 275TWh in 2024, based on government / NESO figures) - to 6.3 TWh (2.3%) in Q3 2024, while waste-generated electricity increased slightly from 1.27 TWh to 1.31 TWh for the same period. Despite the growth, experts are warning that industry bottlenecks mean that alternative solutions are required.

### Read the full story

# University finds alternative method for producing carbon-neutral hydrogen

A professor at the University of Cardiff and his colleagues have developed an alternative method for producing hydrogen by using agricultural waste. The new production process uses less energy than existing methods and emits no greenhouse gases by turning bioethanol into clean hydrogen and acetic acid.

Professor Graham Hutchings says the method



### **01** Notable news

relies on a catalyst made of platinum and iridium to extract hydrogen from bioethanol and water, without releasing any carbon dioxide. The bioethanol used in the process can be made from waste plant material.

The team says it requires much less energy to run than making hydrogen from natural gas. The next step is to attract commercial investment to set up a demonstration plant.

Discover more about this new process

# Biomethane plant in Lincolnshire begins injecting green gas

A VIDA bioenergy site in Glentham has successfully started injecting its biomethane into the UK's National Transmission System.

The plant will produce over 60 GWh of biomethane annually, which is enough energy to heat over 5,200 homes. Collaborating with National Gas, the plant will double National Gas's current biomethane output onto the NTS,

helping deliver over 120 GWh of biomethane annually.

Find out more

## A gas field found in Lincolnshire could fuel the UK for a decade

A newly discovered gas field beneath Lincolnshire has the potential to significantly impact the UK's energy landscape and economy. The Gainsborough Trough field contains approximately 480 billion cubic meters of gas, which is roughly seven times the country's annual gas demand. Analysts predict, with declining gas consumption, the reserve could fuel the UK for the next decade and boost the economy by an estimated £100 billion.

However, the gas would need to be extracted by fracking, which has caused concerns that the practice would distract from net zero goals. Egdon Resources, the company which discovered the gas field, argues the Gainsborough Trough field will lead to less reliance on energy imports as well as job creation.

Consultants Deloitte, who analysed the test drilling results on behalf of Egdon, claimed that using gas from the field rather than from abroad would have significantly less environmental impact.

Read the full story





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### **01** Notable news

# FEN outlines how gas networks are supporting decarbonisation

H Future Energy Networks (FEN) has outlined what the gas networks are currently doing to support decarbonisation and highlights measures which could help cut the carbon budget deficit in buildings and industry by a quarter in 2035.

The report, 'Accelerating Progress Towards 2030s Carbon Budget', builds on the Climate Change Committee's analysis, which finds that current climate policies and the rate of low-carbon investment will leave a significant gap in meeting legally binding carbon targets in the 2030s.

FEN say the gas networks are already supporting the transition to Clean Power 2030, but more can be done with support from policymakers and regulators. They outline seven important actions that the Government and Ofgem need to take over the next few years to unlock abatement potential. These

actions are grouped under three main themes:

- Transporting more low-carbon energy
- Network energy use and emissions
- Flexibility and wider decarbonisation

Download the full report

# The House of Commons released a research briefing on the UK's clean power targets

The Houses of Commons published a briefing on Clean Energy 2030, which examines progress on the 'Clean Power 2030 Action Plan' from the Department for Energy Security and Net Zero (DESNZ). The briefing outlines the targets set to date, how they are measured, and provides background data on various types of energy generation, new capacity, demand, and emissions from the power sector.

The Clean Power 2030 Action Plan, released in December 2024 by DESNZ, outlines the

Government's strategy for transitioning to a clean power system.

According to the Plan, the 2030 target means Great Britain will produce enough clean power to meet its annual electricity demand, "backed up by unabated gas supply to be used only when essential."

The plan also defines what it means by clean power sources, which include renewables (wind, solar and bioenergy), nuclear, gas with carbon capture and storage (CCS) and hydrogen to power, with the exact mix of technologies to be clarified over time.

Overall, the briefing report highlights that while further decarbonisation of the power sector can contribute to the UK's net zero goal by 2050, its contribution is limited when considered alone. However, when combined with the electrification of transport, heating, and industry—instead of relying on fossil fuels—it can significantly reduce overall emissions.

Access the full briefing



## 02 Spotlight on...

### The DNV published its UK Energy Transition Outlook report

Independent energy experts, DNV have assessed the UK's trajectory against key Government targets within Clean Power 2030, 2035 Nationally Determined Contribution (NDC) and the 2050 net zero goal.

The UK Energy Transition Outlook report found that:

- The UK will fall short of its net zero targets by 18%.
- By 2050, emissions are projected to drop 82% from 1990 levels, amounting to remaining annual emissions of 145 million tons of CO<sub>2</sub> equivalent (MtCO<sub>2</sub>e).

DNV's analysis indicates that the 'Clean Power 2030 Action Plan', which aims to decarbonise the electricity system by the end of the decade, will also fail to meet targets. DNV forecasts that unabated gas will:

- Continue to account for 12% of the UK's electricity generation in 2030.
- Full decarbonisation is expected by 2035.

Low-carbon sources, including renewables, nuclear, CCS and low-carbon hydrogen, are anticipated to surpass fossil fuels in the supply mix, with the latter falling from 75% of primary energy today to 34% by 2050. However, oil and gas will remain dominant across the next decade, with significant amounts still required to balance energy demand and ensure the security of supply.

Read the report

Get Xoserve's summarised version



# DELIVERINGDECARB



## **03** Things to look out for

In the March issue of DeliveringDecarb, we will continue our focus on biomethane, bringing you the latest industry news, and policy changes, reviewing in-depth reports, and key projects shaping the UK's biomethane sector.

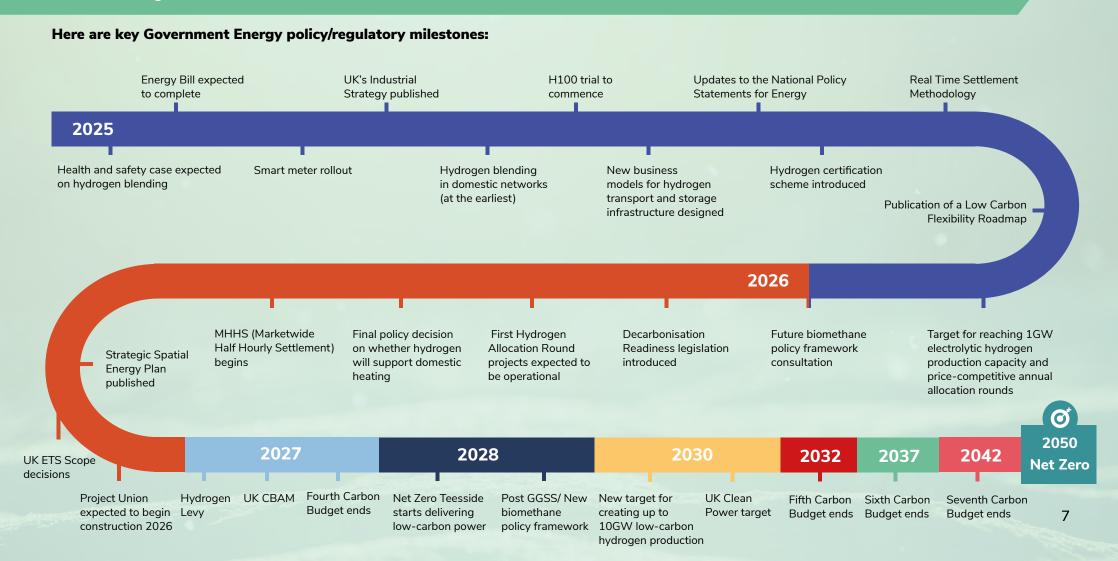
Now that we're well into 2025, we can expect more Government decarbonisation strategies to be announced soon, possibly during the upcoming Spring Budget in March. As these updates come out, Xoserve will assess the changes and their impact on the gas and energy sectors.







## **03** Policy milestones



## **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 March 2025	10:00 - 11:30
Hydrogen Information Sharing Group	Friday 7th March 2025	10:00 - 11:30
Shipper Hydrogen Implementation Forum	Friday 21st March 2025	10:00 - 11:00
IGT Hydrogen Implementation Forum	Friday 21st March 2025	11:30 - 12:30
Metering Hydrogen Implementation Forum	Friday 21st March 2025	14:00 - 15:00

### **Come say hello**

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

2nd annual Energy Transition Summit - Convene Sancroft, St Paul's,

London - 10th March

Future Networks Conference – The National Conference Centre, Birmingham – **18th March** 

Hydrogen Tech Expo – Silverstone Wing – **26th/27th March** 



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## **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 <u>LinkedIn</u>, 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 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

