DELIVERINGDECARB

MARCH 2024

xoserve

Contents

Our March edition of DeliveringDecarb has landed – and it's blooming marvellous.

March also marks the start of spring, and with it, the colder days begin to make way for brighter spells and warmer weather. While we may be using less gas in these coming months as the need for heating reduces, it's important to keep thinking about decarbonising it.

This month, we will be looking at some notable news from the past few weeks, including more funding for clean energy, new green hydrogen plants, and innovative ways to repurpose disused coal mines. You can find out all about these in the latest issue of DeliveringDecarb. So, grab yourself a cold drink and let's spring into this month's gas and energy news.

01 Notable news

The end of 2023 saw energy consumption in the UK decline

According to the Government's latest Energy Trends and Prices statistical release, primary energy consumption in the UK has decreased by 2.1% on a fuel input basis, or 1.5% after adjusting for temperature. Higher energy and other prices are considered a key factor in the reduced consumption levels.

The report also published that over the three-month analysis period, from October to December 2023:

- Indigenous energy production fell by **8.4%**, due to falls in all fuels except coal, bioenergy and waste, wind and hydro
- Renewables provided a record-high share of **49.4%** of electricity generation by Major Power Producers, with gas at 32.9%, nuclear at 15.0% and coal at 2.0%
- The proportion of low-carbon electricity generation surged by 7% points to a record high of **64.4%**, while the share of fossil fuel generation dropped by 7% points to a record low of 35.0%

Access the release

A disused coal mine is heating homes in Gateshead with low carbon energy

An old coal mine in Gateshead has been providing hundreds of homes and businesses with low-carbon energy for the last six months by using the warm water that has filled the tunnels. The operation isn't zero carbon as it still uses some electricity from the grid, though an on-site solar park boosts the renewable proportion.

It is the UK's first large-scale network and shows the potential of the nation's former mining tunnels, which sit beneath roughly a quarter of homes. Gateshead Council's mine water project, which launched in March 2023 is now one of the largest in Europe. With government funding, it installed 5km of new heat network pipes, boreholes and a heat pump energy centre capable of producing 6 megawatts of mine water heat.

Discover more about the project

01 Notable news

IPPR Scotland says over £1 billion per year is needed for clean heat support

Think tank IPPR Scotland has advised Scottish ministers to find a "sensible" funding model to help households move away from using oil and gas boilers in a new report, No Home Left Behind: Funding a Just Transition to Clean Heat in Scotland.

In a report published by the think tank, they recommend that to retrofit all homes by 2045 there needs to be a "massive acceleration" from fewer than 10,000 clean heat retrofits per year to over 100,000. IPPR Scotland also insists that installing "clean heating systems" – such as air-source heat pumps, district heating connections and electric storage heaters – in all homes is "the only way to achieve emissions reductions on the scale demanded by the 2045 net zero target".

The report also suggests that grants should be made available to fully fund the costs of installing new heating systems for low-income families. The costs to help households make the change could be in the region of £1.3 billion to £1.7 billion a year, depending on the levels of support offered.

Read the full story

Download IPPR Scotland's report

Centrica's hydrogen-ready peaking plant in Redditch is complete

Construction on Centrica's new 20MW hydrogen-blend-ready gas-fired peaking plant in Worcestershire is now complete and can power the equivalent of 2,000 homes for a full day. The plant, a decommissioned power plant in Redditch, is designed to support times of high or peak demand for electricity using eight containerised engines to burn natural gas. The peaking plant forms part of the business's plans to invest up to £4 billion in renewable generation, security of supply, and its customers.

More on the story here

01 Notable news

Bristol City Council announced £750m business plan for clean energy

Bristol City Leap, Bristol City Council's plan to decarbonise heat and buildings, and accelerate renewables deployment to achieve net-zero emissions by 2030, has been refreshed with a £750 million five-year business plan. The plan includes creating 1,000 jobs as well as large-scale renewables projects.

One such project is continuing to develop the Bristol Heat Network, adding connections to local businesses and buildings in several areas across the city. From 2026, the construction of the strategic heat main, a key element of Bristol's heat network, is expected to enable the roll-out of low-carbon heating to businesses and communities.

By 2028, Bristol City Leap anticipates deploying nearly 200 megawatts (MW) of low-carbon energy generation infrastructure and reducing carbon emissions by approximately 140,000 tonnes.

Read more on the story

UK Government allocates £120 million to the Green Industries Growth Accelerator

Chancellor of the Exchequer, Jeremy Hunt, unveiled £120 million in funding for the Green Industries Growth Accelerator (GIGA). The announcement was revealed as part of a broader £360 million investment by the Treasury to bolster domestic research and development (R&D), ahead of the Spring Budget (6th March). This brings the GIGA's total funding to almost £1.1 billion.

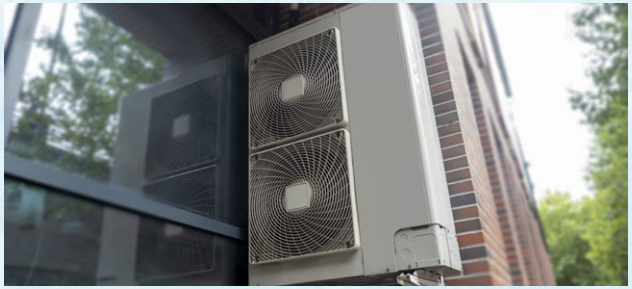
The fund is set up to help boost the supply chains of UK green manufacturing industries like carbon capture, nuclear, hydrogen, electricity networks & offshore wind. £120 million of the funding will support the expansion of low-carbon manufacturing supply chains across the UK.

Read the full story here

01 Notable news

Cost concerns top reason for people not installing low-carbon heating systems

The Department for Energy Security and Net Zero (DESNZ) published the latest findings from the Public Attitudes Tracker. Based on data from Winter 2023, the report indicates that 87% of people had at least heard of low-carbon heating systems, which remains unchanged from Summer 2023. Around a third (31%) said they knew at least a fair amount about low-carbon heating systems and 8% said they knew a lot about this. However, over half said they knew just a little (36%) or hardly anything (20%) on low-carbon heating systems.



Regarding specific low-carbon heating systems, most were aware of air-source heat pumps followed by ground-source heat pumps. Hydrogen boilers, hydrogen-ready boilers and solar thermal panels were the three heat systems people surveyed had the least knowledge about.

The report also found that around a third (between 30% and 36%) of those living in owner-occupied households did not know enough about these heating systems to decide whether they would install a low-carbon heating system in the future. Concerns about the possible cost of installation were the top reason (51%) for why they were unlikely to install specific low-carbon heating systems, followed by they would rather wait and see how this technology develops (37%)

Download the full tracker

Call for evidence on future policy framework for biomethane production

DESNZ is seeking evidence to help develop a future policy framework for biomethane production to maximise the potential of the biomethane market.

The consultation includes topics on:

- The potential design and scope of a future policy framework
- The strategic role of biomethane production in achieving net zero and delivering energy security
- Costs and revenues associated with biomethane production from AD
- The current sustainability landscape of the production of biomethane via AD in the UK
- How planning and permitting can act as enabling elements of a framework

Submit evidence by the 25th April 2024

01 Notable news

The West of England opens its first green hydrogen plant

Staying close to Bristol, the first green hydrogen plant in the West of England has opened in Emersons Green in South Gloucestershire. The project received £2.5 million in funding from the West of England Combined Authority (WECA) and is located at the engineering and innovation centre of IAAPS, which explores the transport industry's transition to net zero.

David Fermin, Professor of Electrochemistry at the University of Bristol, highlights the difficulty in producing green hydrogen at scale.

"Ultimately, as a society, we need to embrace green power generation at its full potential. Communities need to decide whether they want either a 5MW solar farm or a 5MW onshore wind farm.

"If we don't do this, then we are not going to have any green hydrogen at all, and we can kiss goodbye to net zero."

Read more about the new plant

02 Spotlight on... Utilising natural resources as a renewable energy source

To reach net zero, low carbon gases like biomethane and hydrogen will be crucial for decarbonising gas. Biogas, which comprises methane, CO_2, and small amounts of other gases, is generated by anaerobic digestion of organic matter in an oxygen-free environment. This gas can be "upgraded" to biomethane and used for similar purposes as natural gas, like cooking and heating.

By capturing the gases that are produced when organic waste decays and using them as an energy source, we can prevent greenhouse gases from being released into the environment and provide a more sustainable alternative to methane.

As spring arrives, the flowers start blooming, wildlife comes out, and life on the farms grows. More animals mean more organic waste for aerobic digestion and biogas production.

The biomethane sector in the UK is on the rise, with the government seeking industry insights on how to maximise production and harness the benefits of this naturally occurring gas. With the world turning towards renewable energy, it's exciting to see how biogas could be a game-changer in the fight against climate change.

03 Things to look out for

In the spirit of all things new, we're excited to announce that there are more Decarb Discussions podcast episodes on the horizon, following its success in 2023. We're looking forward to sharing with you more expert knowledge in the world of gas, energy and decarbonising the energy system.

For the past few months, we've been busy working with the Fuel Bank Foundation on an event highlighting everyday situations that millions of people experiencing fuel poverty find themselves in. We hosted more than 50 policymakers, energy industry leaders and members of energy research organisations for an immersive experience followed by a discussion on how achieving net zero might impact low-income households over the next two decades. As a follow-up to the event, we will be launching a report with details from the day, which we will be releasing in the coming weeks.

Make sure you download April's DeliveringDecarb as we will spotlight key moments and takeaways from the event.

04 Policy milestones

Here are key Government energy policy / regulatory milestones:

- **2024** - H100 trial to commence
- **2024** - Energy Bill expected to complete
- **2024** - Future systems operator appointed
- **2024** - Smart meter rollout completed
- **2025** - New business models for hydrogen transport and storage infrastructure designed
- **2025** - Hydrogen certification scheme introduced
- **2025** - Target for reaching 1GW electrolytic hydrogen production capacity and price competitive annual allocation rounds
- **2026** - Final policy decision on whether hydrogen will support domestic heating
- **2026** - MHHS (Marketwide Half Hourly Settlement) begins
- **2030** - New target for creating up to 10GW low carbon hydrogen production
- **2030** - Hydrogen town trial to commence

05 Dates for your diary

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

Monthly decarb updates

DNs	Monday 8th April 2024	10:00 - 11:30

We will be pausing the remainder of these sessions whilst we go through the process of appointing the new Development Manager for Decarbonisation. As soon as this is confirmed we will reinstate these updates.

As well as our regular sessions, we'd also like to invite you to these additional events:

Hydrogen Information Sharing Group

Hydrogen Information Sharing Group	Friday 19th April 2024	10:00 - 12:00

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.

Don't forget to sign up to our industry 'intranet'. An exclusive resource for the gas industry, the intranet is designed to keep you up to speed with the latest news, new projects and policy changes. It acts as a central repository for essential information related to your industry, some of which may not yet be available as a public resource. If you would like access to this site, please contact:

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