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Winter and the Christmas season are well and truly here! But before we all submit ourselves to Yuletide, we would wholeheartedly like to thank you for taking the time to read our final DeliveringDecarb newsletter of the year – you're in for a hydrogen-stuffed delight with a COP28 bow on top.

We'd also like to thank all those who contributed their time to appear as a guest on our Decarb Discussions podcast. In our latest episode, available now, Victoria Mustard is joined by Matthew Cole, Head of Fuel Bank Foundation to discuss why our future energy system must work for everyone and how better communication on energy can really make a difference – a sobering talk and a must-listen.

Now, for the final time this year, please find somewhere comfortable, and grab a mug of your favourite festive drink. Perhaps sneak a chocolate from the Christmas stash – we won't tell, and let's dive into the year's final energy announcements from the Government and recap the month's gas decarbonisation news.

One final thing, Merry Christmas and a Happy New Year from everyone at Xoserve.

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01 Notable news

UK Government gives the green light for hydrogen blending

The eagerly-awaited decision on hydrogen blending has been announced by the Government, following consultation with hydrogen and gas industry experts. Ministers have announced they "see potential strategic and economic value" in blending up to 20% hydrogen into Britain's gas distribution networks in certain scenarios. The decision to support hydrogen blending is subject to further decisions on health and safety and a final policy decision that would include an updated economic assessment.

Under proposals, hydrogen could be blended with other gases in the network, up to 20%, as an offtaker of last resort. The Government said it will work with networks and industry to define and deliver the processes required. Blending at a commercial scale is expected to commence in 2025-26 at the earliest.

Hydrogen blending consultation outcome

£2 billion of revenue earmarked for eleven green hydrogen projects

December is widely recognised as the month of giving and this month the Government announced £2 billion in funding to support eleven projects to produce green hydrogen, totalling 125MW of capacity. Funds from the Hydrogen Production Business Model will start to be paid once projects become operational, with the first expected in 2025 and will span over fifteen years.

It is hoped the funding will give developers, investors and supply chain players certainty to commit to backing UK hydrogen projects. In return, the successful projects are expected to invest over £400 million in the next three years, generating more than 700 jobs and delivering 125MW of new hydrogen for businesses.

The Government have launched the second Hydrogen Allocation Round with hopes of supporting up to 875MW of low-carbon hydrogen.

See the full list of successfully funded projects





01 Notable news

The hydrogen heating village trial in Redcar will not go ahead

The Department of Energy Security and Net Zero has decided not to go ahead with the Hydrogen Village trials in Redcar, due to start in 2025. The primary reason for this decision was said to be because the "main source of hydrogen supply will not be available."

The Government reiterated in its latest hydrogen strategy update it still believes that low-carbon hydrogen may have a role to play in heat decarbonisation, alongside heat pumps and heat networks. They will instead gather evidence from wider research and development, as well as the H100 trial in Fife and similar trials in Europe.

An NGN spokesperson said: "We're disappointed that we won't be able to take forward our plan to heat homes and businesses in Redcar with low carbon hydrogen."

Read more on the story

DESNZ published a catalogue of hydrogen policy papers and reports

The Department for Energy Security and Net Zero published a collection of reports alongside their hydrogen blending decision, including their latest hydrogen strategy delivery update. This update was released approximately halfway between the publication of the UK Hydrogen Strategy in August 2021 and the five-year review point and includes a refreshed hydrogen production roadmap and delivery timeline to 2035 reflecting updated ambitions and milestones. It also sets out key policies and support across the hydrogen value chain and a forward look for delivery.

The Government also published their hydrogen production delivery roadmap, in response to Chris Skidmore's independent review of net zero. The Government's paper sets out how ministers expect the hydrogen production landscape to evolve towards 2035 alongside key opportunities and challenges.

Hydrogen projects: planning barriers and solutions, a research project which sets out planning barriers for hydrogen projects and identifies potential solutions to address them and Hydrogen transport and storage networks pathway, were also amongst reports published.

Download the full December 2023 update

Download the Hydrogen production delivery roadmap

Download Hydrogen projects: planning barriers and solutions report

Download Hydrogen transport and storage networks pathway





01 Notable news

Nations agreed to "transition away" from coal, oil and gas at COP28

COP28 came to a close, following two weeks of discussions from 199 attending nations. From the offset, there was pressure to include the language to "phase out fossil fuels" in the final agreement, yet, after final talks ran over, COP28 concluded with nations agreeing to "transition away" from coal, oil and gas.

Nations that are reliant on fossil fuel exports, including Iraq, opposed the stronger phrasing because they said it did not fairly reflect their limited role in causing climate change. All nations at the talks appeared to accept the decision to transition away from fossil fuels.

However, some felt it didn't go far enough, including United Nations Secretary-General António Guterres, who said many Governments wanted a clear reference to phase out fossil fuels but "it was watered down".

"Whether you like it or not, fossil fuel phase-out is inevitable. Let's hope it doesn't come too late," he said.

Read more on the story

development of a green hydrogen hub. The Brazil-UK Hydrogen Hub, as it is named, aims to develop low-emission gas as a viable energy option through international knowledge sharing, partnership opportunities, and investment opportunities supporting a wide

Both countries hope to deliver a joint work plan and a range of activities to address the need to strengthen international cooperation and foster hydrogen production as an important aspect of the global transition to net zero.

Brazil and the UK to collaborate on

Staying with COP28, Brazil and the UK

signed a new agreement to partner on the

green hydrogen hub

range of hydrogen projects.

The full announcement is available here





01 Notable news

Fossil Fuel Price Assumptions 2023 report published

Department for Energy Security and Net Zero produced their long-term assumptions for wholesale fossil fuel prices. The report presents three sets of price predictions based on varying assumptions about future supply and demand curves for each fuel — oil, gas and coal. The three demand assumptions are based on the International Energy Agency's (IEA) World Energy Outlook scenarios.

- Assumption A uses The Net Zero Emissions by 2050 Scenario (NZS)
- Assumption B uses The WEO Announced Pledges Scenario (APS)
- Assumption C uses The WEO Stated Policies Scenario (STEPS)

Short-term predictions for wholesale gas prices estimate an increase in prices for Assumptions B and C until 2025, while Assumption A continues to decrease following the sharp dip in average price in 2023. Predictions flatline post-2030 due to "too much uncertainty", although it's assumed wholesale prices will remain high under Assumptions B and C well into the future.

Download the Fossil Fuel Price Assumptions 2023 report

Read IEA's World Energy Outlook scenarios

Britain's largest gas storage facility switches on following cold snap

Christmas often comes with dustings of ice that make everything glisten, but it also means plummeting temperatures, which is what we saw at the start of the month. This freezing-cold weather meant the UK's largest gas storage facility, named Rough, had to release stored gas into the grid to help the UK manage higher heating demands. An example of the important role gas plays within our energy system.

Although it is the country's largest gas storage facility, at full capacity it can only store just under two weeks of average total UK gas use. This is reduced to seven and a half peak winter days – amongst the lowest volumes of gas in storage in Europe.

See the full story



01 Notable news

Government publishes its central net zero emissions roadmap

The Department for Energy Security and Net Zero has published its roadmap outlining the journey to central Government net zero emissions, part of the Net Zero Government Initiative. The paper covers the policies and interim targets for decarbonising the UK's Governments, drawing from existing strategy documents.



The policy paper reaffirms The UK's commitment to reaching zero emissions by 2050 with Scotland and Wales's public sector achieving net zero before 2050. It highlights the Public Sector Decarbonisation Scheme, the Scottish Green Public Sector Estate Decarbonisation Scheme, and the Low Carbon Heat Grant Scheme as key initiatives in decarbonising heat for Government buildings in England, Scotland and Wales, respectively.

Access the Net Zero Government Initiative: UK Roadmap

DESNZ sets out proposed methodology for gas supply security assessment

A proposed methodology for assessing gas supply security in the medium term has been published by the Department for Energy Security and Net Zero. The assessment will be delivered by the Future Systems Operator on an annual basis and will consider gas supplies according to availability, reliability and deliverability against a peak demand scenario at the end of winter, across a five to ten-year time frame.

It hopes the assessment will give the Government and industry insight into the likely future balance and challenges to our gas supply and help the Government consider key issues around sources, infrastructure and supply.

Access the full report



02 Spotlight on... Fuel Bank

Perhaps we could all claim to overindulge at some point during Christmas, whether it's that extra mince pie, a tipple more or a lavish gift for a loved one. Yet, for many, overindulgence is a rare if not impossible occurrence – even when it comes to energy.

For many of us, Christmas is a time to retreat to the warmth of our festively decorated homes and take comfort in spending time with friends, family and ourselves. As many of us prepare to hibernate until January, charities such as the Fuel Bank are ramping up to help thousands of people heat their homes.

Over the last twelve months, Fuel Bank have helped **623,769** people by providing a crisis fuel top-up and delivering emergency fuel such as coal, wood, or heating oil to 2,125 people living off the main gas grid. It may be shocking but not surprising that the Fuel Bank has seen an 85% increase in demand for financial fuel crisis support in the last twelve months.

In their 2023 Fuel Crisis Report, it was highlighted that the number of people living in extreme poverty has increased by a massive 300%, compared to the year 2003. As we move towards a low-carbon energy future, achieving net zero won't be enough to solve the economic problems faced by millions of people in Britain. Therefore, the energy industry needs to come up with ways to transition every person from fossil fuels without further worsening the financial stress of those who are already struggling, and without pushing more people over the poverty line.

Find out more about Fuel Bank and their work



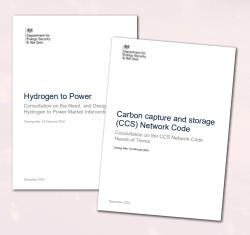






03 Things to look out for

The future of energy is undergoing constant change, particularly with new commitments from COP28 that will inevitably affect decisions and legislation in Britain. Therefore, it is crucial to ensure that experts across the gas industry working towards decarbonising our energy system have a voice in the decisions being made. Currently, there are several consultations open on topics such as hydrogen storage, heat, carbon capture, and hydrogen to power. We encourage you to participate and make your opinion count.





- Give feedback on proposals for the first Hydrogen Storage Business Model allocation round
 - by 1 February 2024
- Submit your views on the CCS Network Code
 by 16 February 2024

- Provide feedback on hydrogen market intervention proposals
 by 22 February 2024
- Submit your thoughts on clean heat in Scotland's homes
 by 8 March 2024



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 - Hydrogen village trials to commence

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

With the festive season fast approaching, and people starting to take some well earned time with families, we have listened to your feedback and have removed the December sessions. We will be picking these up again in the New Year. Please keep your eyes peeled for the release of the January dates.

| Networks Meeting | Tuesday 16th January 2024 | 11:00 - 12:30 |
|------------------|---------------------------|---------------|
| Shipper Meeting | Friday 19th January 2024 | 10:00 - 11:00 |
| Metering Meeting | Friday 19th January 2024 | 11:30 - 12:30 |
| IGT Meeting | Friday 26th January 2024 | 10:00 - 11:00 |





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:

box.xoserve.decarbonisation@xoserve.com

