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As we approach the end of autumn and enter the winter season, we want to extend a warm welcome to our November DeliveringDecarb newsletter. This edition marks the second-to-last newsletter of the year, and we have a lot of exciting content to share with you.

'Tis the season! We don't mean Christmas just yet – 'tis the season of... sustainability and energy reports. In this issue, we've gathered five industry reports that cover topics ranging from meeting UK net zero targets to the potential benefits of hydrogen and carbon capture clusters.

If you recently celebrated bonfire night, you know that it's a perfect time to gather around the fire and share stories. Although we don't recommend lighting fires in your place of work, we invite you to share what you've learned and your thoughts in this month's newsletter with your colleagues. Additionally, we encourage you to join the conversation on LinkedIn.

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01 Notable news



Nearly 50,000 leftover pumpkins turned into renewable energy

Severn Trent Green Power expected more than 50,000 discarded pumpkins to arrive at their waste facility following Halloween. Despite missing out on becoming a delicious soup or pie, this low calorie food will become a low carbon fuel instead through anaerobic digestion.

The company anticipates generating around 22MWh of energy from leftover pumpkins, enough to power close to 2,000 homes for

an entire day! The process which converts food waste into renewable energy prevents it from being consigned to landfills, where it decomposes and releases methane.

[More on the story here](#)

[Discover the decarbonisation potential of anaerobic digestion](#)

New legislation introduced for annual oil and gas licensing rounds

The UK government has introduced the Offshore Petroleum Licensing Bill to Parliament to “boost the UK economy, and energy security and transition to net zero.”

The new legislation aims to safeguard homegrown energy supply, provide certainty and investor confidence for the oil and gas industry, support 200,000 jobs across the UK and add £16 billion to the economy each year.

The Bill will also be subject to two key tests being met:

- The UK is projected to remain a net importer of both oil and gas.
- That the carbon emissions associated with the production of UK gas must be lower than the average of equivalent emissions from imported liquefied natural gas.

In a press release, the Department for Energy Security and Net Zero said of the domestic oil and gas industry:

“The sector is also playing an important role in helping the UK reach the net zero target by drawing on existing supply chains, expertise and key skills – needed for low-carbon industries such as tidal power, offshore wind, and carbon capture and storage.”

[Click for the full announcement](#)

01 Notable news

King Charles states UK Government will double down on oil and gas expansion

King Charles delivered his speech to mark the State Opening of Parliament earlier this month, setting out the legislative priorities for the Government for the coming year. Amongst the bills were several relating to environmental sustainability.

The King confirmed his Government's commitment to "helping the country to transition to net-zero by 2050 without an undue burden on households".

A notable inclusion in the King's speech was a new policy mandating that the UK Government must host a new oil and gas licensing round each year. Rounds will go ahead each year so long as the UK remains a net importer of oil and gas and if emissions from UK-based production remain lower than those associated with imports.

This announcement has been criticised by environmental campaigners and questions have been raised about whether having additional North Sea oil and gas capacity will boost British energy security and ultimately bring down bills.

[Read the full story](#)



01 Notable news

Green hydrogen could unlock £11bn for the UK economy

New research from The Green Hydrogen Alliance (GHA) has found that across the Humber, Thames Estuary and South Wales ports, the UK could create hydrogen hubs with the potential to reduce more than 1.7 million tonnes of carbon dioxide emissions annually – equivalent to taking 60,000 diesel lorries off the road.

Within the report's scenarios, the GHA states that almost £11 billion could be generated for the UK and local authorities of those areas could also unlock £480 million in new low carbon opportunities. Furthermore, the plan could add 900MW of green hydrogen capacity – capable of producing 18% of the Government's 2030 target.

To achieve these outcomes, the GHA recommends these immediate policy changes :

- Allow a 'level playing field' for renewable

feedstock imports to boost the UK's green hydrogen economy in the short term.

- Attract capital by making the UK green hydrogen policy environment a more investable proposition.
- Streamline planning permission for renewable hydrogen production sites, classifying them as critical national infrastructure and making them eligible for capital subsidies.
- Begin work with industry to develop a roadmap for green hydrogen distribution networks of depots, refuelling stations and delivery networks branching out from production and import sites.
- Incentivise R&D into green hydrogen technologies to help spur innovation, and drive down costs across the green hydrogen value chain and help to kickstart a domestically resilient market.

[Download the full report](#)



01 Notable news

Paris Agreement at risk without immediate action to phase out fossil fuels

The Energy Transitions Commission (ETC) has warned that achieving the goals outlined in the Paris Agreement will be unattainable unless there are immediate efforts to reduce fossil fuel emissions to net zero by mid-century.

Their most recent report 'Fossil Fuels in Transition' presents scenarios to dramatically reduce oil, gas and coal emissions from the production, transport and processing of fossil fuels, with methane cut by 75% by 2030.

However, the report stresses the challenge lies in reducing demand and supply, which must fall 80-85% in coal use, 55-70% in gas, and 75-95% in oil by 2050. To meet the 1.5C target, dramatic reductions in fossil fuel use must be coupled with approximately 150 GT of additional cumulative carbon dioxide removals. However, the report stresses that these removals must be in addition to, not instead of,

reductions in fossil fuel demand.

[Explore the ETC's report](#)



Hydrogen heating may save £5bn more than heat pumps, according to a study

A study from Imperial College London, commissioned by Cadent, has suggested that adopting hydrogen for heating homes through the gas network could yield annual savings of over £5 billion, compared to electric heat pumps.

The report cites costs of electric heating driven up by heat pump prices and the investment needed in wind and solar farms to replace gas heating for its annual savings calculations. Cadent is urging the government to consider the UK's gas network as part of its net zero plans, emphasising the importance of keeping options open for consumers, especially those with gas boilers.

[Read the full research paper](#)

01 Notable news

UK CCS expansion could generate £32 billion for the economy

A new research report by Development Economics, commissioned by Drax Group, has found that if the UK Government accelerates and expands the development of Carbon Capture and Storage Clusters (CCS) across the country, it could generate an extra £32 billion from 2050 onward.

This scenario could be delivered through policy changes which can unlock investment and clarify how CCS Clusters are developed, according to the report. These include:

- Finalising CCS business and financial models
- Confirming the role of the UK ETS scheme and voluntary carbon markets in supporting investment in CCS

- Providing a near-term incentive for prospective storage operators to appraise storage locations, building on recent North Sea Transition Authority licencing rounds.

The report also explores the economic impacts of two additional scenarios, one where the UK delivers on current CCS policy commitments and another where it does not.

If the UK does fulfil its ambitions, it will be worth an additional £23 billion per year from 2050 and an additional 310,000 jobs.

[Access the full report](#)



01 Notable news

Report says “hardest part yet to come” en route to net zero

Research from financial services provider KPMG highlights how governments and industries across the globe must deliver transformative change on net zero but are currently limited by significant barriers, including geopolitical tensions, a focus on the cost of living, and the need to maintain the security of supply, whilst also delivering a fair and ‘just’ energy transition.

The report found when it comes to decarbonising heating, the UK Government’s ambition – to install 600,000 heat pumps a year by 2028 – is currently not on track to be met by action. The actual installation figure is around one-ninth of this target and lagging behind some of its European neighbours.

The report highlights six observations:

1. Several of the world’s biggest emitting countries have increased their net zero ambitions.
2. Net zero is weaving itself into the world’s economic systems.
3. Production of low carbon energy is growing rapidly.
4. Increasing electric vehicle sales show how rapidly some sectors can decarbonise
5. Impacts of low carbon power projects on local environments are causing ‘green on green’ conflicts.
6. Net zero backlashes occur when people fear costs and bans rather than new opportunities.

[Delve into the full report](#)

TfL seeks waste heat offtakers

Transport for London (TfL) part of its Waste Heat programme is seeking partners interested in utilising waste heat. The initiative, aligned with London’s 2050 zero carbon target, aims to leverage secondary heat sources.

Waste heat, when combined with heat pumps, could provide end users with low or zero carbon heat and cooling. TfL invites potential offtakers to express their interest by 11th December.

[Read more about the project](#)

01 Notable news



Ofgem opens up public debate on standing charges

Ofgem has made a call for input on the standing charge, including how it is applied to energy bills and what alternatives could be considered. The energy regulator has asked charities, consumer groups, businesses, bill-payers and suppliers for their views on the standing charge, and proposals on alternatives.

It's the first time since before the energy crisis of 2021 that Ofgem has reopened public debate around how the standing charge is spread between customers and what any alternative could look like.

New Ofgem analysis shows that whilst moving to a charge that reflects how much customers use would benefit low-income households overall, there could be a significant number of customers made worse off. Ofgem household case studies show there are around 1.2 million low-income households with electric heating who use a large amount of electricity and so would be worse off by roughly twice as much as those who benefit.

The call for input on standing charges is open now until Friday 19 January 2024. The next price cap update from Ofgem will be published on Thursday 23 November 2023.

[Have your say](#)

02 Spotlight on - Finding the right path for decarbonising domestic heat

Finding the right path for decarbonising domestic heat

There has been a lot of discussion about how to decarbonise the domestic heating sector. The government is expected to decide on hydrogen blending by the end of this year, and the Northern Gas Network's hydrogen village trials are still planned to begin in 2025. However, there is still significant uncertainty regarding the role of hydrogen and low-carbon gas in the future of energy.

In a recent interview, Energy Minister Lord Callanan emphasised that hydrogen would likely have only "a very small role, if at all", in the domestic heating landscape. Instead, he championed heat pumps and heat networks as the frontrunners in transitioning away from gas boilers.

[Read the interview with Lord Callanan](#)

Whatever the UK's energy mix might look like, the energy industry must have a holistic approach, looking at not only fuel sources but housing stock, infrastructure, energy codes, legislation and the logistics and financial repercussions of transitioning domestic heating customers from methane to another fuel.



03 Things to look out for

Fuel Bank Foundation briefing session

Energy security, affordability, and reaching net zero targets are the top priorities for many of us in the gas and energy industry. However, for many energy users, their priority is to stay warm, heat food, and manage their power usage to avoid falling into fuel poverty.

Fuel Bank, a charity organisation, provides support to those who are facing the difficult decision of choosing between eating or turning on the heating. In a recent webinar session, this dire situation was discussed, highlighting the catastrophic impacts it can have on disabled persons, young children, and the elderly. Key takeaways from the report highlighted the difficult decision of four million people on pre-paid meters, who, if unable to top up, face days or weeks without heat or power. Unfortunately, those faced with these challenges are low-income households, often with children. This year, 42% of the people Fuel Bank supported were children.

The charity relies on donations, many of which are from the gas and electricity sector, but as we come into winter, we encourage our customers to read the report and discuss more ways we can impact struggling end users.

[Download the Fuel Bank's report](#)



04 Policy milestones

Here are key Government energy policy / regulatory milestones:

- **2023** - Final policy decision on [hydrogen blending](#)
- **2023** - First [hydrogen support contracts](#) allocated
- **2023** - Decision on hydrogen village location
- **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.xserve.decarbonisation@xserve.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, which we will announce in our December edition.



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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