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As the leaves turn golden and temperatures start to cool, more and more of us will start nudging up the thermostat. Therefore, what better time to focus on decarbonising gas and alternative fuel sources for heating, which is what we've brought to your inbox with our October newsletter. So grab your favourite hot beverage and engross yourself with some monstrous updates and stories in the world of gas and decarbonisation this month.

Halloween is creeping around the corner, and so is the Government's hydrogen blending consultation, which will conclude on the 27th of October, so make sure your voice is heard. Don't forget to check our Dates for your Diary section if you would like to join one of our panel discussions and add your voice to the conversations taking place about gas decarbonisation.

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01 Notable news

NIC presented its National Infrastructure Assessment to policymakers

National Infrastructure Commission (NIC) released its latest National Infrastructure Assessment, which focused on what the nation's energy systems need to align with 2050 targets and interim carbon budgets affordably.

Key recommendations from the report include:

- At least £20 billion and as much as £35 billion will need to be spent each year between 2025 and 2050 on the energy transition.
- Short-term flexible energy capacity will need to quadruple on current levels by 2035.
- The Government will also need to reform its approach to planning to reduce delivery timelines for major energy projects.
- The Government should fully subsidise heat pump installation costs for one-third of homes, based on income.

The NIC believes hydrogen would be the best storage medium for the energy reserve in the long term. Such a reserve would store enough energy to power the country for two weeks by 2040 and could help maintain energy security in any future crises.

In addition, the NIC sees a need for 30TWh of long-term flexibility to be provided by hydrogen power stations, or gas power stations with carbon capture and storage, by 2035. This would be to replace and upscale the existing gas peaker plant capacity.

Download the full report

UK wholesale gas prices are at their highest level since mid-February

Mid-October saw UK wholesale gas prices reach their highest levels since February, with prices peaking at nearly 135 pence per therm. The Israel-Hamas war has led to the closure of a gas field off the coast of Israel. The Tamar field is believed to hold more than 300 billion

cubic metres of gas, which is the equivalent of the annual European natural gas imports.

Supply disruption following a leak in the Balticconnector pipeline, which sends gas between Estonia and Finland, and the threat of strike action by gas workers in Australia are also thought to have contributed to the increase.

Read more on the story here



01 Notable news



Gas usage falls due to decreased demand according to September's Energy Trends

The Government published their third quarterly bulletin containing statistics on all major aspects of energy in the UK. The report showed that in Quarter 2 2023 gas demand fell by 13 per cent compared with the same period last year, driven by reduced demand for gas generation and lower domestic demand. Gas used for generation had the largest fall due to reduced electricity demand due to both record

high electricity imports and reduced demand for electricity.

Consumption of gas by final consumers also fell across all energy sectors, with household demand falling the most, down by 9.3 per cent compared to Quarter 2 2022. The report suggests, that as temperatures were broadly similar year-on-year, the fall in domestic consumption is likely a result of increased energy and other household costs.

Download the latest Energy Trends bulletin



H2NorthEast hydrogen project enters FEED stage

Kellas Midstream has started front-end engineering design (FEED) work on its H2NorthEast hydrogen project in Teesside, which was successfully awarded funding in March this year through the Net Zero Hydrogen Fund.

It has awarded the contract for Phase 1 to global energy services provider, Worley, who will deliver a full-scope FEED package over the next 15 months. Phase 1 of the project involves the design and build of a 355MW hydrogen production facility and hydrogen distribution system, with the potential to upscale to more than 1GW in a second phase by 2030, contributing up to 10% of the UK's target hydrogen capacity.

Read the full story here



01 Notable news



Marubeni pledges to invest £10 billion in UK clean energy

Marubeni Corporation and the Department for Business and Trade of the UK Government have entered into an agreement that will realise £10 billion of investment in the next 10 years in offshore wind and low carbon hydrogen. The agreement will help support the UK Government's commitment to deploy offshore wind farms with a total capacity of up to 50GW, which will include up to 5GW

of floating offshore wind farms by 2030 and 10GW of production capacity of low carbon hydrogen.

Read more on the agreement

Citizens Advice publishes report on costs for low carbon heating by region

Citizens Advice has researched the cost implications of upgrading electricity and gas networks in various location types. Key findings indicate that upgrading both electricity and gas networks in the same location results in more than doubling network costs on average.

The consumer advocate commissioned LCP Delta to explore the costs of upgrading electricity and gas networks in four possible scenarios for heating across 12 different location archetypes in England, Scotland and Wales. In each instance, the costs were estimated for 5,000 domestic properties.

The report found that electrification would be the cheapest option for all but two of the archetypes, the exceptions being urban housing in London and the North West of England. It found electrification would be the cheapest option for all 12 of the location archetypes when also adding in costs for hydrogen storage.

The charity has urged the Government to minimise heating system costs by adopting location-specific solutions, a concept known as "heat zoning." As an initial step, they recommend ruling out the use of hydrogen in rural areas, where network costs for heat pumps are significantly lower than those for hydrogen boilers.

Access the full report



01 Notable news



OEUK publishes emissions performance of the UK offshore oil and gas industry.

The UK offshore oil and gas industry has reduced production emissions by 24 per cent compared to 2018, according to a new report from Offshore Energies UK. In its Emissions Report 2023, OEUK also found that the sector has also halved flaring and venting and cut methane emissions by 45% compared to 2018. It also found the UK's carbon footprint will increase by 50 million tonnes of CO2e by 2050 if there's no new investment in domestic oil and gas production.

OEUK has laid out four policy actions for the Government to attract investment:

- Make the UK an attractive destination for investment in offshore energy.
- Adopt a whole-system approach to decarbonisation that accounts for upstream and downstream activity.
- Ensure the UK's oil and gas production facilities are seen as part of a wider integrated energy system.
- Ensure the UK Emissions Trading Scheme (ETS) supports progressive decarbonisation and avoids prematurely shutting down activity.

Delve into OEUK's key report findings and recommendations

Wales sets out plan for decarbonising heating with heat pumps and district heat networks

Wales has set out a plan to decarbonise heat using the large-scale deployment of heat

pumps and heat networks, with hydrogen's role limited to areas around industrial 'hydrogen hubs'. A consultation on the new heat strategy cites the Climate Change Committee's conclusion that the majority of buildings in Wales need to transition to heat pumps.

The Welsh government will consult on a new planning policy to restrict fossil fuel heating in new developments, starting with a ban in commercial developments from 2033, and phasing out fossil fuel boilers in existing dwellings. Off-gas grid fossil fuel boilers will be prioritised, using non-domestic rates support.

Following the consultation, the Welsh government promised an Action Plan that is expected to include: governance arrangements; specific actions to meet policies; responsibilities and short-term timescales for action; and a measurement and evaluation approach.

Read more on the story



01 Notable news



UK's Secretary warns North Sea decline jeopardises UK's energy independence

During the Energy UK's Annual Conference, Secretary of State for Energy Security and Net Zero Claire Coutinho stressed the urgency of investing in the energy sector and the development of initiatives to address the North Sea's challenges to maintain energy selfsufficiency.

Ms Coutinho said: "We will only succeed in the energy transition if we double down on sectors

with the greatest opportunities. The greatest opportunities to decarbonise. To help polluting industries go green. And to grow our economy. Make no mistake, carbon capture and storage is one of those sectors"

She went on to promise that her department will be publishing a long-term vision for CCUS later this year and investing in the offshore wind sector, delivering enough offshore wind to power the equivalent of every home in Britain by 2030.

Read the full keynote speech





02 Spotlight on - Hydrogen Blending

Hydrogen Blending – Government consultation and beyond.

As Britain prepares to decrease its reliance on fossil fuels, attention is increasingly turning to how to decarbonise heating and industry and what extent hydrogen's role in the transition will be. The Government released its Energy Trends report, which showed a decrease in consumption, but this fall is believed to be due to higher prices rather than a move to renewable energy.

There's lots of discussion around hydrogen replacing methane as a low-carbon gas, but there currently isn't the necessary legislation in place for hydrogen to start entering the gas network outside of hydrogen trials. However, the Government's open consultation on hydrogen blending concludes on 27th October, so we may have more details on hydrogen's role in decarbonising gas shortly.

In the meantime, we have some fascinating blog posts and podcast sessions to sink your teeth into. Last month, Xoserve's Victoria Mustard was joined by Charles Perez-Storey, Principal Engineer at Progressive Energy, to discuss what's needed next from policymakers to help the UK regain momentum as a leader in green hydrogen production.

Listen here

Read here







03 Things to look out for

Preparing the UK for winter

As we approach the winter months, the UK's ability to prepare for the season will depend on effectively balancing gas storage levels, managing rising wholesale prices and support for struggling households. Fortunately, Europe has already achieved its goal of filling gas storage facilities up to 90 per cent capacity. However, as we enter winter, with expected lower temperatures and soaring wholesale prices, the need for energy security is becoming ever more pressing.

The Energy Bill is currently in its final stages, with the final amendments made in the House of Commons being considered, and Royal Assent expected to follow next year. To assist customers during winter, new Ofgem regulations make it easier for people to contact their energy supplier for help if they are struggling with their bills.





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.xoserve.decarbonisation@xoserve.com

Don't miss these upcoming sessions:

Networks Meeting	2nd November	10:00 - 13:00
Shipper Meeting	10th November	11:30 - 13:00
Metering Meeting	17th November	10:00 - 11:00
IGT Meeting	24th November	10:00 - 11:00





06 Keeping in touch

We've been working on a range of initiatives designed to help raise awareness of gas decarbonisation and keep everyone in the industry connected. Our Decarb Discussions podcast is one such initiative and covers topics from different industry perspectives. If you'd be interested in getting involved and hearing your voice on our podcast channel, please get in touch.

And 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

