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Welcome to the next instalment of **DeliveringDecarb**. We're over halfway through the year, and the energy industry has seen considerable change already. In this month's newsletter, we will be taking a look at the most notable news stories from July.

With 85% of UK dwellings having a gas connection and domestic heating responsible for one-third of the UK's carbon emissions, finding sustainable alternatives will be crucial for a greener tomorrow. Hydrogen offers one possible solution to decarbonising domestic heating, but what are the challenges? Thanks to insightful contributions from gas industry experts, we've been able to explore the role of gas in domestic heating, check out our Spotlight section to delve into this fascinating topic. Be sure to make time for the latest Xoserve blog and [DecarbDiscussions](#) podcast if it's a topic that interests you.

If there's a forum you want to be involved with, or you would love to be the next guest expert on our podcast, please get in touch. You'll find all the details you need below.

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## 01 Notable news

### Waste heat from hydrogen production to heat Bridgend schools and leisure centre

Bridgend County Borough Council is seeking design proposals for the next phase of a heat network project. The project plans to recover waste heat to meet baseload heat demand on the heat network from the electrolyser at the proposed green hydrogen production facility, HyBont. Hydrogen boilers will provide additional heat during peak hours and when waste heat is not available due to the intermittency of renewable energy supply to the electrolyser. This innovative project could fully decarbonise the heating of a primary school, college, and leisure centre complex located nearby, whilst making use of a heat source that would otherwise be considered waste and lost.

Bridgend has been awarded funding from the Heat Network Development Unit to determine whether the heat network opportunity is sufficiently viable to take through to commercialisation and delivery.

Read more on the project [here](#).

### Britain has three years to take action and get back on track for net zero

HGE Vernova's report 'Challenges in the Electricity Market: 2025-50 – Reaching Net Zero Carbon in Great Britain', warns if immediate action is not taken within the next three years Great Britain would be at risk of falling short of its target to supply decarbonised electricity by 2035. The report also recommends upgrades to the grid infrastructure and operations, including

- An additional 250GW of renewable and decarbonised generation, approximately 2.5 times that of existing capacity, will need to be added to the power system by 2050 to support increased demand.
- More than £50bn investment in power generation and storage capacity this decade.
- 80 GW additional transmission line capacity along the Scottish and English boundaries, to optimise the use of renewable electricity

Martin O'Neil, Vice President of Strategy at GE Vernova's Gas Power business, said: "It is incumbent on policymakers to incentivise private capital providers with clear investment signals through net zero legislation and regulation as there is no silver bullet that will fast forward Great Britain's electricity system to 2035 and deliver the net zero target. Forming private-public funding partnerships will be the cornerstone of adding additional capacity and expanding the grid at speed."

Read all of [GE Vernova's recommendations](#).

### UK Research and Innovation awards £53m to create innovative green technologies

To drive forward change in the energy sector and help meet the UK's net zero by 2050 target, the UK Research and Innovation announced a £53 million fund for six research centres.

This investment will be distributed across six research centres, with the largest proportion of £20 million going towards two hubs that

## 01 Notable news

will provide clean and sustainable hydrogen options for domestic, industrial, and transport energy systems. The remaining £33 million will be divided among three Supergen research hubs (£17.5 million) and a new Energy Demand Research Centre (£15 million) that will investigate ways to reduce energy demand on a local and national level across the UK.

Read the [full list of investments](#).

### Ten energy projects worth £95.3 million have been approved

Ofgem has approved £95 million worth of funding for ten energy projects due to commence in July with the goal of transforming the UK's energy systems. The projects focus on clean heat, zero-emission transport, data and digitalisation and whole system integration led by energy network companies including National Grid ESO and Cadent.

Part of the £450 million Strategic Innovation Fund (SIF), several projects aim to demonstrate

technologies enabling the future use of hydrogen, such as compression and blending of hydrogen for use in gas networks.

Read more on [the funded projects](#).

### Future Energy Scenarios 2023 report released

The National Grid ESO released its 2023 Future Energy Scenarios (FES), outlining four pathways to examine how Great Britain's energy system might decarbonise by 2050. The scenario framework remains the same as in FES 2022 – Consumer Transformation, System Transformation, Leading the Way, and Falling Short. The first three scenarios all reached net zero with Leading the Way achieving net zero by 2046 compared to 2047 in the previous report.

The running theme this year was highlighting the need for immediate action on key recommendations, including:

- Reducing uncertainty for investors and consumers, and avoiding delays in delivery and installation of net zero technologies
- Providing easy access to information and the right incentives for consumer engagement will play a crucial role in the transition
- Improving market signals and new distributed flexibility solutions
- Implementing strategic coordination and whole system thinking across all sectors to avoid unmanageable network constraints and potential curtailment.

In the latest FES report, solar and wind generation is forecasted to be higher in all successful scenarios, compared to 2022. Predictions for natural gas output were reduced compared to 2022's report for all scenarios except the Customer Transformation pathway, which remained the same.

Read the summary or full 2023 [Future Energy Scenarios](#) report.

## 01 Notable news

### Department for Energy Security and Net Zero calls for evidence to support bill payers

The new Energy Security and Net Zero Committee has called for written evidence on how best to protect and support energy bill payers this winter. The Committee has launched four inquiries following an engagement event with the energy and environment sector. The inquiries are:

- Preparing for the winter: Examining the lessons from the high energy prices of last winter, the customer protections offered by Ofgem and legislation regarding pricing controls.
- Heating our homes: Investigating the changes needed to deliver energy-efficient homes across the UK, how the Government can support innovation and the affordability of the switch to decarbonised heating.
- A flexible grid for the future: Looking at

what needs to be done to ensure the UK has effective infrastructure to deliver capacity for the future and support the development of renewable energy sources.

- Keeping the power on, our future energy technology mix: Exploring how the energy mix of the UK needs to change to deliver enough capacity while delivering against Net Zero targets.

[Submit evidence by 25th August.](#)

### Carbon Capture Scotland signs a deal to capture and reuse AD plant CO<sub>2</sub>

Carbon Capture Scotland Limited and Iona Capital have signed an agreement to capture and reuse green carbon dioxide from Iona's UK biomethane plants. The captured CO<sub>2</sub> will be used to create low-carbon and low-energy dry ice for use in food, cold logistics and pharmaceutical industries. The two companies plan to extend their agreement to any future

AD or biogas plants that Iona may develop in the UK, continental Europe and North America.

Read the full story [here](#).

### Wales & West Utilities explores hydrogen pathway in gas partnership

Wales & West Utilities is partnering with National Gas and Northern Gas Networks to develop a 'gas control room of the future', which will be capable of securely managing low carbon hydrogen, either blended or 100%, alongside biomethane, to replace natural gas and help reach net zero by 2050. The 'Gas Control Systems' project, which will run until the end of the year, will assess the impact of distributing a wider range of gases through the existing network infrastructure. It will specifically seek to identify any changes that may be required to our control room systems to ensure they will meet requirements to support the operation of the future energy system. Read the full story [here](#).

## 02 Spotlight on... Domestic Heating

### UK's first hydrogen village won't be in Whitby following local opposition

The Government has confirmed that the two-year hydrogen village trials, set to begin in 2025, will not go ahead in Whitby following opposition from residents. Local residents argued that the Government and the companies involved had not provided clear enough information to ease their concerns about safety. This means that the NGN Redcar proposal is now the only Hydrogen village proposal in the running. The Redcar Hydrogen community project is still being reviewed by Government, and it is expected to make a decision on the project location later this year and is confident that it will run to the original timeframe.

Read the full story [here](#).

### Could hydrogen provide a solution to decarbonising domestic heating?

With domestic heating responsible for one-third of the UK's carbon emissions, finding sustainable alternatives will be crucial for a greener tomorrow. The UK has a varied housing stock, with many unsuitable for heat pumps due to space or cost constraints. As a low-carbon, clean gas, hydrogen represents a promising solution to decarbonise domestic heating with minimal disruption. Read more on [preparing the UK's housing stock for a low-carbon future](#) on the Xoserve blog.

In our next [DecarbDiscussions](#) Podcast, Xoserve's Decarbonisation Strategy Lead Vicki Mustard is joined by Alex Brightman, Hydrogen Home Coordinator at Northern Gas Network, explaining the benefits of using hydrogen for residential heating and cooking.

- [Listen to the podcast](#)
- Blog coming soon

Xoserve also spoke to Renewable Energy Installer about how hydrogen could help tackle the decarbonisation challenges of the UK's varied housing stock. Read the [full article](#).



## 03 Things to look out for

### Highlighting sustainability and Britain's road to net zero

Many in the energy industry and former government members fear lack of green energy policy, rising interest rates, skill shortage in the sector and grid constraints will derail Britain's net zero journey. In next month's newsletter, we will take a high-level look at Britain's sustainability and net zero plans, as well as industry concerns.



## 04 Policy milestones

Here are the key Government 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

Summer half term is almost upon us and many will be spending July and August with family, enjoying some time away from the office. With this in mind, sessions will resume again in September.

For the latest industry updates, you'll still have the monthly newsletters, podcasts and the Xoserve website to keep you informed.

Any key government policy decisions or updates on relevant projects will be sent via email. If you're not subscribed to our mailing list, please contact us at [decarbonisation@xoserve.com](mailto:decarbonisation@xoserve.com).

<b>Shipper Working Group</b>	8th September	11:30 - 13:00
<b>Metering Working Group</b>	15th September	10:00 - 11:00
<b>IGT Working Group</b>	22nd September	10:00 - 11:00
<b>DN Working Group</b>	26th September	10:00 - 11:30

As always, we'd love to see you at our Hydrogen Implementation forums. To join, please email [box.xoserve.decarbonisation@xoserve.com](mailto:box.xoserve.decarbonisation@xoserve.com)





## 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 DecarbDiscussions podcast is one such initiative and covers a range of 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:

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