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Welcome to our October edition of DeliveringDecarb, the monthly newsletter designed to bring you right up to date on everything that's happening in gas decarbonisation across the nation. This month's Spotlight section gives you a peek at the Northern Gas Networks hydrogen home project and we also take a look at some of the key lessons learned from Hydeploy Phase 2. Don't forget to check our Dates for your Diary section, and be sure to bookmark the Xoserve resources hub detailed below - especially if you'd like to be the first to hear our new DecarbDiscussions podcast.

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01 Notable news

HyPSTER underground hydrogen storage

HyPSTER is the first EU supported project for large scale green hydrogen, with HyPSTER standing for Hydrogen Pilot Storage for large Ecosystem Replication. Officially launched in January 2021, it's an exciting project and worth keeping an eye on, as the process being tested and developed could possibly be replicated to other sites throughout Europe. The purpose of this project is to demonstrate the technical feasibility of underground hydrogen storage in terms of safety and environmental impact. The hydrogen produced on site will be distributed for industrial use by consumers switching from grey to green hydrogen, and to power hydrogen refuelling stations for green transport including HGVs, buses and waste removal lorries.



Consultation on Cost-Plus-Revenue Limit

The Energy Price Bill issued by government on 12th October put into law several already tabled mechanisms intended to mitigate rising energy bills. It also announced an intention to consult on a Cost-Plus-Revenue Limit - which will put a cap on all excess revenues received by renewable generators. Most of the details of this new scheme currently remain unclear, including the price to be set for the limit. The price cap is not intended as a windfall tax, according to government sources, and it will still allow generators to cover their costs and receive an appropriate revenue that reflects their operational output, investment commitment and risk profile. It is expected to be in place from the beginning of 2023 - and we will keep you updated with any developments.

Read more

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01 Notable news

Learnings from HyDeploy phase 2

As a landmark project to demonstrate how the gas network can carry a hydrogen blend, the Hydeploy trials have offered us some important insights so far. Hydeploy phase 2 brought together Northern Gas Networks, Cadent, the Health and Safety Executive, Keele University, ITM Power, and Progressive Energy, and focused on the supply of 668 consumers in Winlaton, a village in Gateshead, Tyne and Wear. It was the first ever trial to introduce a 20% hydrogen blend into a public network and has provided clear evidence of how hydrogen can help the industry move rapidly towards decarbonisation. With the trial now complete, many operational lessons have been learned. Key among these was the importance of industry communication and collaboration. Data from the trial will be used to shape future trials and associated consumer and industry communications.

Publication of the 'Hydrogen Accelerators'

On 4th October, Hydrogen UK (HUK) published a series of policy recommendations to facilitate the scaling of hydrogen technologies. The recommendations are the result of work HUK has been doing with 50 industry groups and key policy makers over the past year, with the aim of developing business models that can unlock the potential of hydrogen. Titled 'Hydrogen Accelerators', they cover in detail 'steps that the industry and Government must take together to accelerate hydrogen's journey in the UK'. These include recommendations for scaling production, networks and storage, and for stimulating demand; to grow the whole hydrogen value chain simultaneously. The publication of the Hydrogen Accelerators has been welcomed by the Energy Networks Association (ENA) as

a 'very timely set of recommendations which urgently need to be taken forward in order for this vision to become a reality'.

Read the recommendations



Read more in our blog

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02 Spotlight on... The UK's first hydrogen homes

Back in July 2022, the UK's first homes with appliances running on 100% hydrogen were officially opened at the Northern Gas Networks (NGN) innovation site.

Xoserve has been fortunate enough to visit the site and learn more about the two zero-carbon, semi-detached homes there; built in partnership by NGN, Cadent and BEIS. We would definitely recommend others to do the same.

The hydrogen homes are open to the public for individuals, or educational groups to visit and will give them an opportunity to see how hydrogen appliances look and work close up. Those appliances will be swapped out over time, to give different manufacturers an opportunity to showcase their newest innovations, and visitors from educational establishments will also be able to access information about potential careers in the emerging green economy and in science, technology, engineering and maths (STEM) subjects.

With heating in buildings forming a significant part of the UK's carbon footprint, the hydrogen house project is closely aligned with the government's Ten Point Plan. Next steps will include development of plans for a hydrogen neighbourhood and hydrogen town.





Book your visit by emailing <u>hydrogenhome@northerngas.co.uk</u>

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03 Policy milestones

Here are the key Government policy / regulatory milestones:

Autumn 2022 - Indicative assessment on the value-for-money case for <u>blending</u> <u>hydrogen</u> in the existing network

Q4 2022 - <u>Business model</u> for hydrogen support finalised

2022 - Decision on <u>rebalancing policy</u> <u>costs</u> between electricity and gas

2022 - Final investment decisions on two 'Track 1' Carbon Capture & Storage (CCS) clusters **2023** - Final policy decision on <u>hydrogen</u> blending

2023 - First <u>hydrogen support contracts</u> allocated

2023 - Decision on hydrogen village location

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

2030 - New target for creating up to 10GW low carbon hydrogen production

2030 - Hydrogen town trial to commence



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04 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:

Shipper working group	Friday 11th November	11:30 - 13:00
Network working group	Monday 21st November	10:00 - 12:00
IGT working group	Friday 18th November	10:00 - 11:00
Metering working group	Friday 25th November	10:00 - 12:00



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05 Things to look out for

Find valuable resources on the Xoserve Decarb Hub

Our new Decarb Hub launched at the end of September. If you've already paid the hub a visit, we hope you found it useful. Designed to be an essential online resource for anyone interested in finding out more about decarbonisation of the gas network, it's where you'll find quick links to all of our blogs, videos and podcasts. You'll also be able to see a full list of Xoserve forums, meetings and event dates - so make sure you bookmark the Decarb Hub and feel free to share any of the content you find there with your business community.

Visit the Decarb Hub





It's a truly exciting juncture for the gas sector. With more biomethane plants connecting to the gas grid than ever before and groundbreaking hydrogen trials underway, our combined opportunity to make a difference is vast.

While exciting, we also know that there's an awful lot going on within the energy industry at present - decarborisation or otherwise - and if we're to work efficiently, effectively and at minimal cost to consume, collaboration is vital.

We have established a dedicated decorbonisation team at Xoserve, tasked with doing just that. Acting as an impartial partner across the industry, we're in a unique position to share knowledge and bring industry thinking together as we embark on new territory - together.

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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. Coming very soon, our DecarbDiscussions podcast will cover 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 help you stay 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

