

Updates from our recent Member Consortium Meeting

AUTUMN 2025



Arran.Williams@cadentgas.com



www.hydrogenvalley.co.uk



Hydrogen Valley

Featured Speakers



Lloyd Mitchell
National Gas



Andrew Price
CR Plus



Iona Page
Progressive Energy



Richard Sheppard
Summit Energy
Evolution



Dewi Nicholson
Swagelok





Donald Oleforo

National Gas

It was a pleasure to welcome our Hydrogen Valley partners and collaborators to another energising consortium meeting. A big thank you to our brilliant speakers for sharing their insights and expertise – it was brilliant to hear about the work you’re doing in the hydrogen space.

It’s an exciting time for hydrogen in the UK. With growing policy support and increasing investment, momentum in the sector is building. Ofgem has confirmed £164 million for three National Gas projects to accelerate a core hydrogen network. This includes £107 million for two new projects connecting hydrogen clusters in the North of Scotland and the North East and North West of England, alongside £57 million announced in June, which will link industries across Teesside and the Humber region. These investments mark a major step toward creating the UK’s hydrogen backbone and enabling a low carbon future.

Our consortium meetings are always a fantastic opportunity to bring together expertise and ideas to drive progress in the sector, so thank you to all who joined us. Once again, our breakout room discussions stood out as one of the most engaging parts of the meeting. These smaller group conversations continue to create space to spark open dialogue and new ideas. It was clear that participants were eager to keep the conversations going, and it’s fantastic to see organisations openly sharing ideas and experiences to drive progress together.

These meetings are more than just updates. They’re a brilliant space for shared learning, fresh thinking, and momentum. Thank you to everyone who joined us and contributed to such a productive session.





Arran Williams

Cadent

Thank you to everyone who joined us for the latest Hydrogen Valley Consortium Meeting. Once again, we were delighted to see our members' and partners' eagerness to get involved and collaborate.

We heard some fascinating insights from our speakers, each demonstrating the scale of opportunity and the importance of joined-up thinking across the value chain.

The National Gas deblending programme sparked thoughtful discussion around how hydrogen can be blended into, and de-blended from, the existing gas network. This capability will be essential for enabling flexible hydrogen use across a range of industries.

It was also fantastic to hear about the progress of the Bacton Energy Hub, a joint venture between our members Progressive Energy and Summit Energy Evolution. This stood out as a strong example of the collaborative thinking needed to deliver a low-carbon future.

We were thrilled to hear from CR Plus and Swagelok, who shared insights into the role their organisations play in advancing hydrogen solutions. Their contributions opened up important conversations about the opportunities hydrogen presents across the value chain and the steps needed to make those opportunities a reality.

As the Hydrogen Valley project continues to grow, so too does the strength of our network. The collaboration, expertise, and momentum we're seeing are exactly what's needed to turn hydrogen potential into practical progress.



New Members

It was fantastic to welcome Swagelok as a new member during our consortium meeting. Since then, we've been pleased to see even more organisations joining the Hydrogen Valley network. This growing community reflects the increasing momentum behind hydrogen and a shared commitment to collaboration and progress across the sector.

If you're interested in joining, please [contact us](#) today.



Swagelok is a leading manufacturer of fluid system components, with over 75 years of expertise with hydrogen applications. They are committed to supporting the safe, efficient, and reliable use of hydrogen - partnering with their customers from system design through to delivery, training, and ongoing support across a wide range of applications.

As a proud supporter of the Hydrogen Valley consortium, Swagelok are keen to collaborate with organisations that share their commitment to quality, safety, and innovation in this rapidly evolving market.



MICHELMERSH
Britain's Brick Specialists

As Britain's Brick Specialist, Michelmersh Brick Holdings PLC unites the best in clay traditions. The Group represents seven recognised premium brands across the UK and Europe; Blockleys, Carlton, FabSpeed, Floren.be, Freshfield Lane, Michelmersh and Hathern Terra Cotta, producing 125 million clay bricks, pavers, special shaped bricks, bespoke architectural Terra Cotta and prefabricated brick systems.

The Group remains at the forefront of industry innovation and sustainability, leading with its world first 100% hydrogen-fired clay brick trials: HyBrick.



NVFCL
www.NVFCL.com

Northern Valve and Fitting Company Ltd (NVFCL) are the authorised distributor of FITOK products in the UK. NVFCL supports the hydrogen sector with world-class fluid system components and solutions. Backed by expert technical support, onsite installation, assembly, and training services, NVFCL ensures safety, performance, and efficiency in hydrogen applications across research, production, and infrastructure projects. NVFCL are keen to share their knowledge with Hydrogen Valley members to help engineer smarter, safer, and more cost-effective solutions.

Breakout sessions



Our breakout sessions once again proved to be a highlight of the meeting, sparking valuable conversations about the current hydrogen landscape and the challenges and opportunities it presents.

The breakout rooms were facilitated around two key questions:

- What are the biggest barriers your company is facing in the hydrogen sector?
- What would your company like to see from the upcoming UK Hydrogen Strategy refresh?

It was fantastic to witness the level of engagement and willingness to share both challenges and opportunities across the supply chain. Participants discussed the need for technology shifts to support hydrogen deployment at scale, and the importance of data optimisation, with many calling for clearer government incentives and funding mechanisms to accelerate progress.

A recurring theme was the need for tailored, sector-specific solutions. There was strong consensus that a “one-size-fits-all” approach won’t work for hydrogen, and that greater certainty is needed to build investor and industry confidence.

As always, the conversations could have gone on much longer - a clear sign of how much value people are getting from these sessions, and how important it is to keep creating space for this kind of collaboration.





Lloyd Mitchell
National Gas

National Gas Deblending Programme

In our latest consortium meeting, Lloyd Mitchell joined us to outline how hydrogen might be blended for use within the existing gas transmission system, and subsequently how this hydrogen can be separated from natural gas for use across different industries.

Key stats:

- Currently, 99% of the UK's gas provision travels through the transmission system.
- The transmission system provides natural gas for power generation, industry, storage sites, distribution businesses, interconnectors, and LNG Terminals.
- Hydrogen blending, alongside the rollout of 100% hydrogen pipelines, will create jobs, position the UK as a global leader in green innovation, and provide flexibility and optionality to the nation's existing energy supply.

National Gas has a Three Molecule Approach for adapting the gas transmission system to deliver hydrogen. This includes:

- The rollout of blending across the National Transmission System (NTS)
- Strategic Carbon Capture and Storage connections
- The strategic rollout of 100% hydrogen pipeline connections

Initiatives such as Project Union & FutureGrid will accelerate the rollout of 100% hydrogen pipelines by demonstrating that the fuel can be transported safely, reliably, and cost-effectively.

FutureGrid Deblending

FutureGrid Deblending focuses on the deblending of gases within the high-pressure NTS to enable delivery to transport applications.

This technology will help accelerate the rollout of hydrogen refuelling stations by allowing access to blended gas from the network, rather than relying solely on locally produced hydrogen, until 100% hydrogen pipelines are in place.

It is expected that electrochemical hydrogen compression, and a deblending unit, will enable hydrogen to be extracted out of a blended gas transmission system.

PROGRESS: National Gas has commissioned a consultancy to identify potential demand for hydrogen refueling, to map this against their existing network.

Benefits to distribution via pipeline

- Improved reliability of supply
- Smaller site footprint
- No local storage = lower risk
- Greater site capacity





CR plus

Andrew Price
CR Plus

CR Plus are a specialist, independently owned consultancy. They place special focus on delivering cost reduction, energy efficiency and decarbonisation support for their clients.

Within the Hydrogen Valley region

CR Plus are involved with a number of industrial clusters across the UK and have experience collaborating with a number of Hydrogen Valley members, including British Sugar, and the Black Country Industrial Cluster.

Working with their clients, CR Plus can help businesses identify how sites can decarbonise and reduce energy use. They support and de-risk their client's energy transition.

Bottom-Up approach

CR Plus guides their clients through their decarbonisation journey from start to finish.

1. CR Plus will consider which decarbonisation option works best for each business, identifying the best and lowest risk pathway. Each organisation is assessed based on whether hydrogen or electrification will result in optimal process outcomes for each client. CR Plus also provides insight into process transition, storage requirements, and the best use of site investment.
2. CR Plus supports and de-risks the energy transition for their clients. They use their expertise to guide businesses towards available funding and regulatory support, while utilising their engineering expertise to equip organisations with the skills required to accelerate decarbonisation goals.
3. At the start of each client's innovation journey, CR Plus uses its Business Risk & Opportunity framework to cut through innovation uncertainty on innovative plans transition projects, managing risks and high-value opportunities.





Iona Page
Progressive Energy



Richard Sheppard
Summit Energy Evolution

Summit Energy Evolution and Progressive energy – Bacton Hydrogen Hub joint venture

Bacton Energy Hub is a joint venture between Progressive Energy Limited, and Summit Energy Evolution Limited (SEEL), both of which are members of the Hydrogen Valley consortium.

What is the Bacton Energy Hub (BEH)

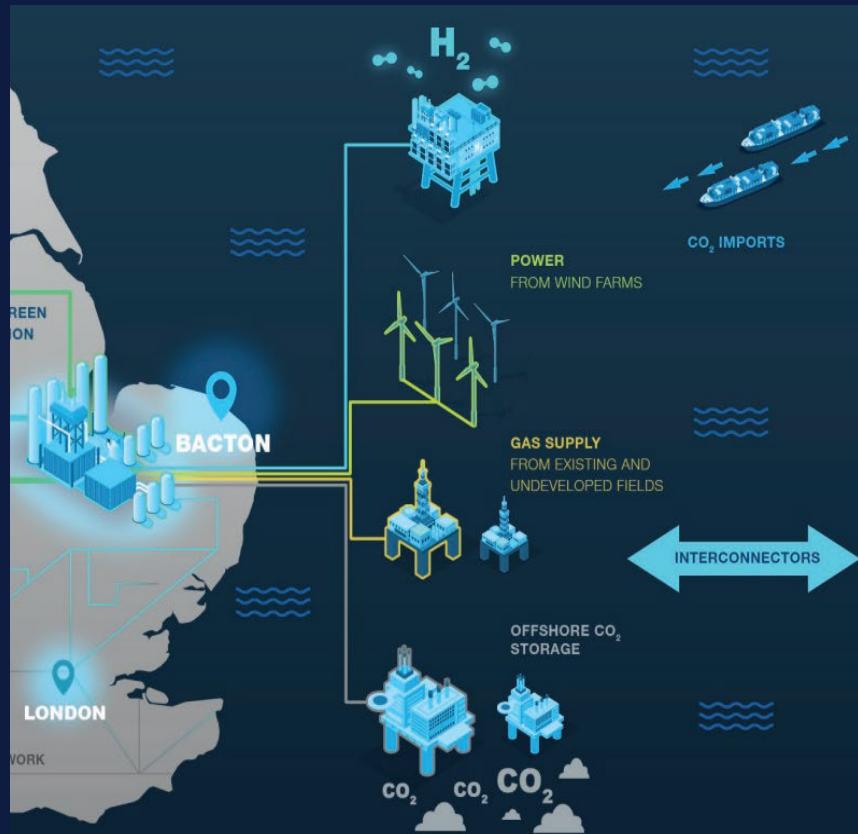
Recognised by the North Sea Transition Authority, Bacton is a key regional energy hub. Primarily due to its strategic location and the availability of existing infrastructure, BEH has the potential to become a hub for CCUS enabled blue hydrogen production.

Bacton has the unique position in the UK's energy landscape as a pseudo-centre of present and future physical gas grid connections in the UK and Europe.

Future potential

BEH, once complete, is set to deliver:

- 600MW blue hydrogen to distribution systems across the region.
- A minimum 95% carbon capture rate, with a target of 97%.
- A significant contribution to UK energy security, leveraging existing infrastructure and resource in the region to ensure its low carbon future.



The Hydrogen Valley region could be a significant offtaker for the Bacton Hub. In 2025, the project's priority is to identify offtake demand for hydrogen across the region, with the Hydrogen Valley programme, alongside Project Union and Capital Hydrogen identified as potential distribution networks.

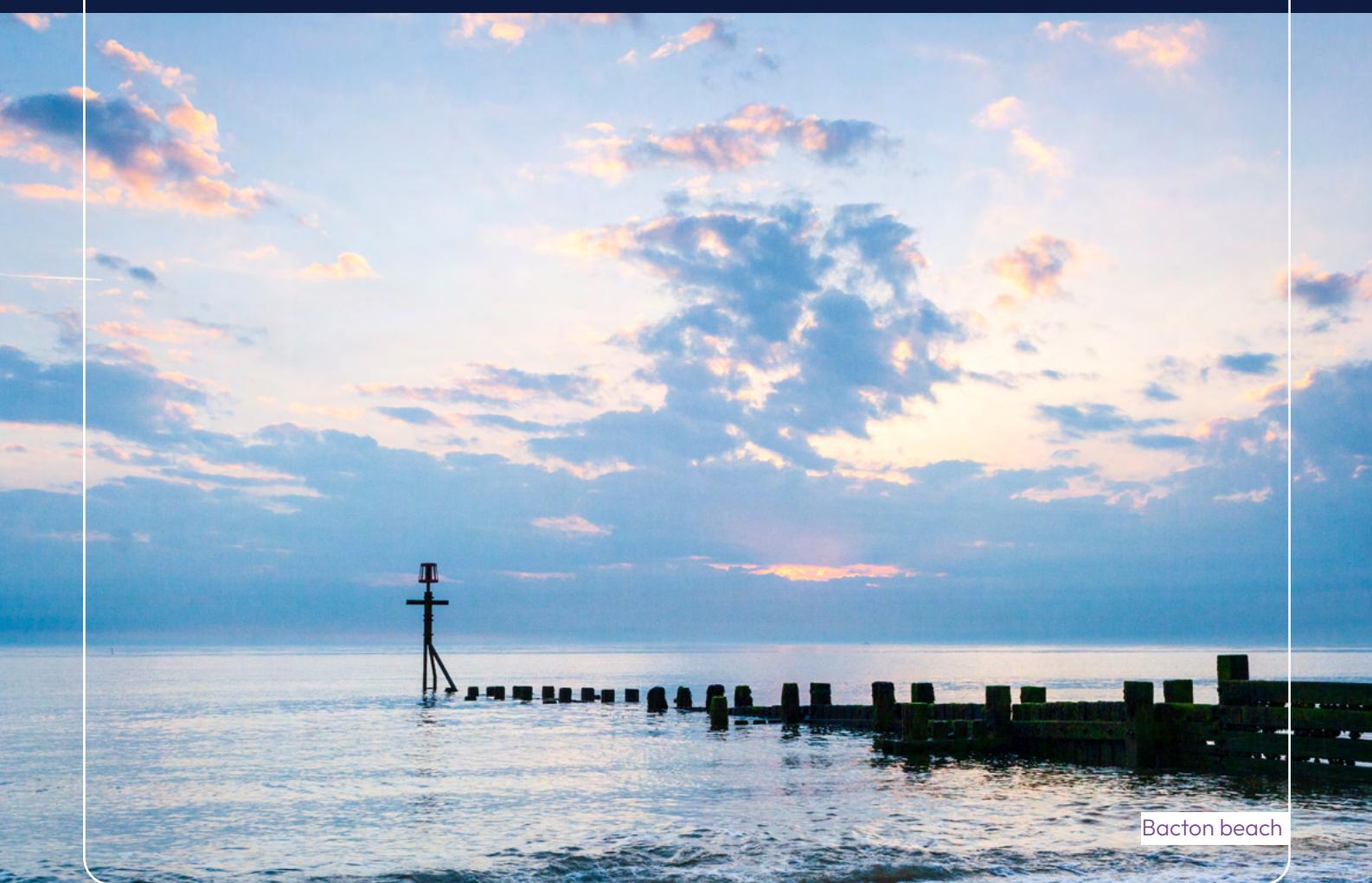
The importance of collaboration

Across the UK hydrogen sector, it is often identified that strong collaboration across the supply chain is key to accelerating the development of a low carbon economy. The Bacton team are currently working around the clock to lay the groundwork for the project's success across the hydrogen value chain. This includes:

- Identifying hydrogen demand centres and the necessary infrastructure for hydrogen distribution.
- Engaging in close collaboration with potential offtakers to make the case for the hub's development.
- Strengthening the value chain across stakeholders, including offtakers, transportation routes, power & utilities, local businesses, and more to help demonstrate value for money to the Government in an effort to secure revenue support.

Local and national benefits of BEH

- Safeguards existing jobs, while creating new skilled roles both locally and nationally
- Attracts regional investment in Bacton and beyond
- Drives regional innovation and education
- Supports the UK Government's Clean Power Mission
- Develops cross-border links
- Provides greater energy security, with locally produced hydrogen energy
- Works with and for the benefit of the local community.



Bacton beach



Swagelok

Dewi Nicholson
Swagelok

Swagelok have a vast bank of expertise in designing and manufacturing fluid system components that deliver optimum levels of safety, reliability, and performance.

Hydrogen is a unique gas, and Swagelok understand that their products and components must be designed for maximum compatibility. These considerations include:

- Designing products which are compatible with small-molecule gases, as hydrogen can escape from the smallest connection gaps.
- Manufacturing high-performance components compatible with high-containment pressures.
- Ensuring safe and quality installation practices, with the understanding that component installation can impact critical system components that can compromise the materials' integrity.

Swagelok have recently teamed up with Luxfer Gas Cylinders, experts in reliable and high-performance gas products and components that can safely store and transport hydrogen.

Hydrogen Vehicles & Refuelling

Hydrogen refuelling stations (HRSs) provide pressurised hydrogen to fuel cell electric vehicles. The process is like refuelling a conventional petrol-powered car.

Swagelok offers high pressure hydrogen control products and specific grab sampling systems which are needed to dispense hydrogen to pressures of 350 or 700 bars depending on the type of vehicle.



Hydrogen Storage & Transportation

As previously mentioned, hydrogen can be difficult to store and transport, due to its unique properties.

Swagelok aim to help solve this issue by offering transportable pressure equipment (TPE) rated products as required for UK public roads since Transportable Pressure Equipment Directive (TPED) was replaced within the UK.



Hydrogen Blending

Hydrogen blending is the process of mixing hydrogen with natural gas in existing gas networks, helping to ease the transition to a hydrogen economy.

Swagelok can help provide skids and gas distribution panels, alongside grab sampling systems that will help to analyse the blend of gases within the pipelines.



Hydrogen electrolyzers

Swagelok work with electrolyser manufacturers to offer expert advice and guidance, helping to develop the key technologies for hydrogen that emits few to no carbon emissions.



Thank you to our Consortium Members

A huge thank you to all our Hydrogen Valley members and partners.

Your expertise and collaboration are driving real progress in the Midlands. By working together, we're building a connected hydrogen ecosystem that supports businesses, strengthens communities, and accelerates the wider energy transition.

Our shared efforts are helping turn plans into progress, ensuring hydrogen plays a meaningful role in building a cleaner, more resilient energy future.





Hydrogen Valley

Thank you to everyone who have been involved with the creation of the Hydrogen Valley programme, and to those who work tirelessly to make the case for a hydrogen economy and the infrastructure needed to support this.

Contact us:



Arran.Williams@cadentgas.com



www.hydrogenvalley.co.uk



Hydrogen Valley