

Future of Gas

Minutes from the Steering Group meeting on the 19th of January 2022

Location:

Virtual event

Attendees:

Alex Haffner – National Grid ESO
Lorna Millington - Cadent
Thomas Koller - Energy Networks Association
Robin Cannings - Storengy
Richard Woolley – Chemical Industries Association
Alexandra Howe – BEIS
Richard Fairholme – Uniper
Angus Paxton – Afry
Lisa Fischer – E3G
Sam French – Johnson Matthey
Marcus Newborough – ITM
Graham Bennett – DNV GL
Steven De Ranter – IUK
Will Webster – OGUK
Kirsty Ingham – Centrica
Julie Cox – Energy UK
Stella Matthews – Northern Gas Networks
Hywel Lloyd – UK100
Victoria Mustard – Xoserve
Bogdan Kowalewicz – Ofgem
Chris Logue – National Grid Gas
Neil Rowley – National Grid Gas
Jennifer Randall – National Grid Gas
Bill Goode – National Grid Gas
Edmund Abbs-Brown – National Grid Gas
Jonathan Cranmer – National Grid Gas
Susannah Ferris – National Grid Gas

Apologies:

Martin Cook – National Grid Gas
Joe Howe – Thornton Energy Institute
Ray Arrell – Regen
Sam Hughes – Citizens Advice

Guests:

Emily Strub - First Secretary for Gas Decarbonisation and Sustainable Energy at the UK Mission to the EU in Brussels

Euan McCarthy – BEIS

Programme Lead Change:

Jen Randall to take over from Neil Rowley as programme lead for the Gas Market Plan programme, effective from 1st February 2022.

Welcome and Introduction:

The chair, Chris Logue, welcomed the attendees and proceeded to introduce Jen Randall as the programme lead for the Gas Market Plan programme. Jen is transitioning from the wider markets team at National Grid Gas Transmission, her previous position as Commercial Code Change Manager, informed the group she was delighted to be taking over from Neil. Chris concluded the housekeeping section with setting the agenda for the meeting.

Members updates:

BEIS Thanked those from the industry that have participated in the Future of Gas call for evidence development to date. BEIS are aiming to launch the call for evidence later in the year.

NGN: All GDNs have submitted proposals on 100% hydrogen village trials for up to 2,000 properties and expect a decision on the village trial outcome from BEIS in the Spring 2022. NGN have recently released a joint feasibility study (in collaboration with Cadent and NGGT) on East Coast Hydrogen and are progressing this work further. NGN will also be constructing a customer energy village, with the aim to be open to public from September 2022. The village will include 9 different properties representing different decades of property in the UK, showcasing the potential to use hydrogen in each of these properties alongside innovation opportunities and heat efficiency measures.

Hydrogen village trial: <https://www.ofgem.gov.uk/sites/default/files/2021-07/Hydrogen%20Consumer%20Trial%20-%20Open%20Letter%20to%20GDNs%20%28004%29.pdf>

East Coast Hydrogen: https://cadentgas.com/nggdwsdev/media/FRoG/ResourcesHub/East-Coast-Hydrogen-Feasibility-Report_online.pdf

Hydrogen houses: <https://www.northerngasnetworks.co.uk/2021/02/16/northern-gas-networks-partners-beis-and-cadent-to-build-hydrogen-houses/>

Cadent Confirmed they are about to launch a Future Billing Methodology (FBM) consultation. Report for FBM to be released 31st of March. Xoserve are coordinating on behalf of industry.

ITM Announced an upscaled project in Cologne, from 10 MW to a 110 MW electrolyser facility. ITM also announced at COP 26 that ITM will build two more factories to produce 5GW of electrolyser capacity per annum, with a target date of December 2024, to ensure there is sufficient green H2 production capacity available to meet international market demands. ITM will be developing an additional facility in Sheffield and another overseas.

UK100 Are approaching 100 members who have committed to reaching net zero by 2045. Members are accelerating plans for delivery to net zero, including developing an emerging framework for local area planning, as well as plans to start a climate leadership academy and a delivery summit for net zero in the summer.

Gas Goes Green Released a collaborative piece with GMaP on Britain's Hydrogen Blending plan, this report includes an exploration of the market changes needed to meet 2023 Government hydrogen blending target, including the regulatory, license, UNC and safety changes that may be required.

Britain's Hydrogen Blending plan:

<https://www.energynetworks.org/assets/images/Resource%20library/GGG%20Britain%27s%20Hydrogen%20Blending%20Delivery%20Plan.pdf>

Xoserve Are working with GDNs on a number of hydrogen pilot projects. Xoserve are developing an industry journeys piece to outline communication for what is needed by when for hydrogen pilot projects.

DNV Are working with Aker on the Northern Horizons project, to explore floating wind in the Northeast to deliver green hydrogen. The project includes exploration of a new subsea pipeline to Scotland by the 2030's and is also exploring aligning to Project Union.

Northern Horizons: <https://www.youtube.com/watch?v=SE3qzT5Rens>

Johnson Matthey Informed that 21.01.22 is the deadline for phase 2 submissions for CCUS cluster sequencing for HyNet and East Coast Cluster. The Scottish Government announced they will support the Project Acorn cluster. Johnson Matthey announced at COP 26 they pledge to invest £1bn on clean hydrogen technologies by 2030.

Johnson Matthey pledge: <https://matthey.com/en/news/2021/jm-pledge-to-invest-in-clean-hydrogen-tech-by-2030>

Debate on Decarbonising Heat in Homes

Afry and E3G delivered a presentation on the issues around decarbonising heat in homes.

- **Purpose:**
 - How can / will / should society decarbonise heat in buildings?
- **Drivers for debate:**
 - There is a dichotomy of views on the size of different outcomes on Electricity vs Hydrogen
- **Future of Gas Steering group debate centred on:**
 - How will decisions be made?
 - What level of detail is required to make those decisions?
 - What do we know about various solutions?
- **Introduction to debate:**
 - Within the energy industry there is good understanding on what solutions for the future of heat could be, such as heat pumps, resistive heating, hybrid systems, district heating, biomethane to boilers, hydrogen to boilers, biomass etc.
 - What will be critical is maximising the thermal efficiencies of buildings, and also gaining a further understanding of the 'state of the art' technologies within solutions to domestic heating. For example, heat pumps are improving all the time.
 - Policy makers should select future of heat options based on whole-system outcomes, but there are many detailed underlying uncertainties, and the choice is not clear (capital costs, operating costs, sunk costs etc). A framework may be needed to make these decisions.
 - At what point should options be provided to consumers on the decarbonisation of heat? The choices individual consumers will make will also be driven by less tangible factors (i.e., information, misinformation, perception, reputation, convenience, disruption, compatibility, bills – fuel costs into the future, i.e., the future price relationship between gas and electricity (which may not be as strong in the future) may skew intended policy outcomes.
 - There is significant regional variation in the ease of supply of gaseous heating solutions, i.e., large hydrogen supplies may be developed far away from population areas (thereby supporting the need for networks).
 - There are also a myriad of different properties in the UK (flat, terrace, semi-detached, detached, cottage), what is the long-term solution?
 - We need to deliver decarbonisation of heat at pace, and there are a range of solutions available. However, this range is at danger of paralysing deployment. How do we pay for the future of heat?
- **Key debate questions/ points discussed:**
 - How will local planning fit into the decarbonisation of heat? Local authorities need to work with utilities to deploy decarbonisation of heat technologies, due to local knowledge.
 - Approach to how the gas networks could transition to hydrogen is being explored further to develop potential options available, as the energy landscape is/will evolve rapidly.
 - How much choice will consumers have? Is hydrogen an interventionist approach? What if consumers want to move away from H2 in the future? It is a huge challenge (chicken and egg), what will come first, hydrogen production or demand?
 - We need to look at the whole system (i.e., there is excess heat in some areas and not enough in others). If we have to implement home energy efficiency measures, does that offset the risk of heat pumps? However, at peak demand times we will still need more energy (i.e., heat pumps less efficient at times of low temperatures), therefore is there a need for local hydrogen production? The debate on the future of heat is often polarised and often does not go into enough level of depth.
 - We need to consider all market participants, such as suppliers (etc) in the transition to low carbon heat.
 - Decarbonisation of heat should not focus overly on cost, consumers also value reliability, options etc (people buy houses and think about energy bills later ~ i.e., stone cottages are very expensive!)

The outputs of this debate will be considered further to determine any direct actions that may aid the progression of this topic. Any such actions will be further communicated.

EU Hydrogen and Decarbonisation Gas Package

This session was used as an opportunity to explore the recent EU hydrogen and gas publications and use feedback from the steering group to support the development of the GMaP forward plan.

On 15th December the EU published its Hydrogen and Decarbonised Gas Package proposals which included:

- Changes to EU laws including Gas Regulation (715/2009) and Gas Directive (2009/73).
- Changes to the energy performance of building directive and introduces new methane emissions regulation.
- The aims are to create a liquid market for hydrogen and low carbon gases, create a just transition and new consumer protections, as well as reduce GHG emissions by 55% by 2030.
- Proposed Milestones:
 - 2023: Member states transpose gas regulations into law, rules developed for hydrogen interconnection points with 3rd countries
 - 2024: 6GW electrolyser capacity
 - 2025: TSOs target 5% hydrogen at interconnection points for liquid cross-border flows
 - 2027: Member states to ban fossil fuels in buildings
 - 2030: Hydrogen networks to comply with unbundling rules, phase 2 of market rules for low carbon gases begins. 40 GW electrolyser capacity
 - 2031: No tariffs for access to hydrogen networks
 - 2049: Long term contracts for gas to be limited to 1 year.
 - 2050: Hydrogen meets 13-14% of total energy demand (expect to import hydrogen as well)

Key debate questions/ points discussed:

- The group discussed the zero tariff proposals and the potential consequences that they could have (e.g. cross subsidisation).
- The importance of trading with the EU was highlighted, and how that may mean rules at IPs need to be flexible to ensure the continued smooth working of the market.
- The importance of centralised co-ordination was also referenced and the need to ensure work is not being duplicated in different groups.
- There was also a suggestion for more focus and discussion on overarching hydrogen regulatory framework questions, before going down into specific proposals.

Poll Questions

How interested are you in the EU Gas Package, and is this a topic you think the FOG/GMaP programme should focus on in 2022/2023? (12 responses)

- Interested, and yes it should be an area of focus for the programme. 58 %
- Interested, but no it should not be an area of focus for the programme. 42 %
- Not interested 0 %

Based on the "Cross Border Timeline" which of the following do you think the FOG/GMaP programme should investigate further? (8 responses)

- H2 blending decisions 75 %
- Rules for H2 IPs with 3rd countries 88 %
- Gas quality cooperation by TSOs 50 %
- 5% H2 blending at IPs 75 %
- No tariffs for access to hydrogen networks 25 %
- None of the Above 0 %

- Other 0 %

Similar to the decarbonised heat topic, the feedback from this session will be considered further to determine any direct next actions relevant to the GMaP and FOG programmes. Such actions will be communicated further.

Meeting Close

The Chair thanked all for their participation and closed the meeting.