



The REA and CNG Services have been running the Green Gas Day since 2012. It is the largest industry gathering in the UK focused on green gases, including hydrogen, with over 300 people attending all previous years.

Along with actions to accelerate the roll out of energy efficiency measures and the deployment of renewables, green gases such as biomethane and clean hydrogen are key to reduce our dependency on fossil fuels and reliance on imported gas from Russia, as well as to deliver an energy future which is independent, secure, and stable.

The UK has been active in the development of green gas plants in the past decade, but more needs to be done to help us become self-sufficient. The growth of the green gas sector in the UK has been mostly supported by the Non-Domestic Renewable Heat Incentive (NDRHI) and, more recently the Green Gas Support Scheme (GGSS). According to Government statistics, the UK has 143 biomethane to grid projects registered under the NDRHI, with a further 31 projects in the pipeline. Another 45 biomethane plants are also expected to be developed over the life of the GGSS.

Green gases supplied for transport under the Renewable Transport Fuel Obligation (RTFO) have also been growing rapidly in recent years, particularly biomethane. Mobility is also likely to be one of the key sectors to kick-start the development of the clean hydrogen sector in the UK.

New financial models that are not reliant on subsidies are also emerging for biomethane plants with carbon capture and storage, which make biomethane carbon negative and particularly valuable for companies that need to offset their residual GHG emissions.

In the UK and in the world clean hydrogen is currently enjoying an unprecedented political and business momentum as a versatile and sustainable energy carrier, but the right policy and regulatory framework needs now to be in place to support the rapid scale up of this sector and deliver the necessary cost reductions. Policy to support clean hydrogen is developing at a fast pace in the UK and much innovation is being carried out to facilitate the safe and sound deployment of hydrogen production, injection into the gas network and different hydrogen applications. Innovative projects are underway that are integrating renewable electricity generation such as solar and wind with batteries and electrolysers, and injecting hydrogen into the National Transmission System.

# DRAFT AGENDA - 04.10.23 Subject to Change

- 09:00-09:30- Refreshments and Registration
- 09:30-09:40- Welcome and introductions- Dr Nina Skorupska CBE, REA's CEO

## **UK and EU Biomethane Market Update**

- 09:40-09:45- Chaired by Sara Bartle, REA
- 09:45-10:00- Europe's REPowerEU target for biomethane 12 months on Harmen Dekker, European Biogas Association
- 10:00-10:15- UK Government policy- Green Gas Support Scheme and beyond Mark Davis, DESNZ
- 10:15-10:30- GB Market update and biomethane innovation in Bio-CO2, E-CH4 and Reverse Compression John Baldwin, CNG Services
- 10:30-10:45- Never Vent Biogenic CO2 / themes of quality, end of waste and what makes a food grade gas David Hurren, President BCGA
- 10:45-10:55- Q & A
- 10:55- 11:25- Morning Tea/ Coffee break & Networking

#### **Future of Green Gas and the Gas Networks**

- 11:25-11:30- Chaired by John Baldwin, CNG Services
- 11:30-11:45- Balancing deployment scenarios of biomethane and hydrogen Angus Paxton, AFRY
- 11:45-12:00- Reducing barriers to biomethane injection projects to help NetZero Alison Cartwright, CNG Services Ltd
- 12:00-12:15- Cadent's Biomethane Strategy
  - David Moon, Cadent Gas
- 12:15-12:30- Scaling up biomethane and the future of the gas grid Nic Crowe, Grissan
- 12:30-12:40- Q&A with panel discussion
- 12:40-13:40- Lunch/Networking

## **Regulatory Session**

- 13:40-13:45- Chaired by Paul Thompson, REA
- 13:45-14:00- SHEQ- COMAH Biogas classification. EA and tank integrity testing Colin Mills, Future Biogas
- 14:00-14:15- Sustainability reporting and compliance: Risks and value Lucy Montgomery, NNFCC The Bioeconomy Consultants
- 14:15-14:30- Maximising Biomethane Gas to Grid Availability Russell Brown, nZero Group
- 14:30-14:40- Q&A
- 14:40-15:00- Afternoon Tea/Coffee break and Networking

## **Commercial Developments**

- 15:00-15:05- Chaired by David Hurren, President BCGA
- 15:05-15:20- Growth in biomethane as a transport fuel in UK

Luke Preston and Shane Doherty, Refuels

- 15:20-15:35- Biomethanol or biomethane using green hydrogen and bio CO2
  - Achim Raschka, nova-institut GmbH
- 15:35-15:50- Biomethane from manure with CCS

Charlie Steer, Grosvenor Estate Farms

15:50-16:05- Turning gas into money: Optimised routes to market

Rosanna Butters, Barrow Green Gas

- 16:05-16:15- Q&A
- 16:15-16:25- Closing remarks John Baldwin, CNG Services Ltd

## **Speakers & Chairs**



















# Dr Nina Skorupska CBE FEI, Chief Executive, The Association for Renewable Energy and Clean Technology (REA)

Prior to joining the REA in 2013, Nina worked for 20 years for the RWE Group (and UK predecessors: National Power, Npower etc.) across fuel engineering and R&D, power station operations (where she was Npower's first female power station manager) and trading. Her last RWE role was CTO, Essent (RWE's Dutch business). She is a Board member of Transport for London (TfL), REAL (REA subsidiary), and more recently Royal BAM Group NV. She also advises Carbon Trust, National Grid ESO and Energy Research Accelerator (ERA) and others. She is a Fellow of the Energy Institute. She received her CBE in 2016 for her services to renewable energy sector and promoting diversity in the Energy Industry.

#### Sara Bartle, Green Gas and Hydrogen Policy Lead, REA

Sara joined the REA in June 2023, having previously worked for over 15 years in the waste management sector. Most recently, Sara worked for a waste management company where, with her team, she ensured compliance in landfill sites. She was also responsible for permit variations and site management plans. This followed 6 years working for a local authority in the waste and recycling team, having previously worked in water and wastewater management after graduating in Environmental Science.

#### Harmen Dekker, CEO, European Biogas Association

Harmen Dekker has worked for almost 20 years within the sustainability sector and is devoted to the mitigation of climate change. With both a technical as well as a business administration background he has built his career in the water and gas sector, where he has held various management positions. He joined the EBA after being involved in the biogas sector for over five years. During those years, he not only focussed on the expansion of biogas and in particular biomethane but also on the implementation of techniques such as bio-LNG, bio-Methanol, bio-Hydrogen and bioplastics.

#### John Baldwin, Managing Director, CNG Services Ltd

John is a Chartered Engineer with 40 years in the gas industry, the first 20 in British Gas/BGE&P/Transco where he worked on South Morecambe, Armada and the NTS. Since 2003 John has worked for CNG Services with 16 years of renewable gas experience including being a former Chairman of the Renewable Energy Association Biogas Group. His company CNG Services Ltd is a niche EPC Contractor and consultant in biomethane and hydrogen. John is also a Director of CNG Fuels who are building a national network of Bio-CNG filling stations connected to the high pressure gas grid and is a Director of Barrow Shipping Ltd which is the leading shipper focused on renewable gases

### David Hurren, President, British Compressed Gas Association

David Hurren graduated from Imperial College in Chemical Engineering. For most of his career he has worked in the Industrial Gas industry, apart from a 4 year spell in water & wastewater treatment. After 25 years with Air Liquide UK, including setting up and leading Air Liquide's Biogas operations in the UK over the 7 years he is now working as a consultant/board advisor with knowledge on Biomethane Production, Transport and Use; Biogenic CO2; Hydrogen; and managing start-ups and rapidly growing businesses in the Renewables Sector.

David is currently President of the British Compressed Gas Association (BCGA); vice chair of the REA Green Gas committee; and on the advisory boards for ADBA and Gasworld.

#### Colin Mills, Managing Director, Future Biogas

Colin is a Chartered Chemical Engineer with extensive experience of leading operations, projects and teams in hazardous and regulated environments. Colin joined Future Biogas in 2018 as Operations Director, later progressing to Managing Director and is now responsible for the operations & business activities of the existing sites. Colin joined Future Biogas after a 20-year operational, project and engineering career at BOC (Industrial gases).

#### Luke Preston, Operations Director Refuels / CNG Fuels

I have been in the engineering and transport arena for over 25 years working for businesses such as Scania, Tesco and Waitrose / John Lewis before joining Refuels- CNG Fuels over 4 years ago.

From starting out as an apprentice and working within the Engineering & Transport Industries throughout my entire career has provided an in-depth understanding from engineering to supply chains and transport operation. Luke is skilled and qualified in Engineering, Transport and Dangerous Goods.

#### Nic Crowe, Government Affairs & Development Director Grissan renewable Energy

Nic's role with Grissan sees him identifying routes to significantly scale-up biomethane's role in the UK energy system. Prior to joining Grissan, Nic was a civil servant with roles in a number of key Government Departments. This included time leading the Renewable Heat Incentive's reform agenda where he developed and implemented a number of policies designed to increase biomethane deployment

### Shane Doherty, Biomethane Development, Renewable Transport Fuel Services Ltd

Shane has over 10 years experience in the AD sector, working in the development, commissioning and operation of large scale AD plants and was awarded 'AD Plant Manager of the Year' at the ADBA awards in 2018. Shane's responsibilities at RTFS is working directly with Biomethane producers, enabling unsubsidised Biomethane projects to progress and assist in the decarbonisation of the UK HGV sector.

# **Speakers & Chairs**



# Alison Cartwright, Senior Project Manager, CNG Services Ltd

Alison Cartwright has spent the last 11 years working in the biomethane industry. She is currently working as a senior project manager for CNG Services, bringing together innovative solutions to facilitate multiple plants to be able to connect to the gas grid. A chartered mechanical engineer with a MSc in Renewable Energy Systems, she has worked on both connecting new biomethane projects to the grid and in day to day operations of biogas plants.



#### Rosanna Butters, Managing Director Barrow Green Gas

Rosanna joined as Managing Director of Barrow, and its parent company Ceres Energy, in 2022. Barrow was the first biomethane shipper in Great Britain and provides gas shipping and supply services, as well as certificate marketing services. Collectively Barrow and Ceres are the leading shipper in GB and hold licences in Ireland.

Prior to joining Barrow Rosanna spent seven years at Transport for London, where she was a senior project manager of multiple major engineering projects and TfL's Sustainability Ambassador for the pan-industry Major Projects Association. Her special expertise is in project delivery and organisational improvements.



## Russell Brown, Innovation & Technology Director

Russell's engineering and commercial experience spans over three decades, with significant technical, process and operational experience working for organisations around the world. Russell repatriated in 2011 taking a senior role at Orbital, then moved to Thyson, striving for exceptional customer satisfaction in both. He is a Chartered Engineer, achieved an MBA, and is passionate about renewables, knowledge transfer, new technology, and process optimisation, that can improve our customers' operational experience.



#### Dave Moon is the Director of Asset Investment & HyDOP for Cadent

Cadent are the largest gas distribution company in the UK with over 11 million customers. Dave is an experienced leader of teams in regulation, finance, operational support and our customer centre, and is the executive sponsor of Women In Cadent, who look to promote the amazing women within Cadent. He also sits on the E, D & I executive steering group.



#### Charlie Steer, Arable Manager, Grosvenor Farms

Charlie grew up on his family's small farm in East Cheshire which his parents ran alongside their professional careers. Charlie studied agriculture at The University of Reading and graduated in 2010. He is now the arable manager for Grosvenor Farms LTD, a mixed dairy and arable enterprise on the outskirts of Chester. He is responsible for the management of the combinable and forage cropping on the farm, agronomy, staff, machinery and nutrient management; in short, all the farming operations involved in growing combinable crops and at each 'end' of the cows on the 3,500 head dairy enterprise. In addition twelve percent of the farms area is now managed for environmental enhancement under the higher tier stewardship scheme. Charlie is a 2019 Nuffield farming Scholar, the title of which is 'The Circular Farm, Minimising input for maximum output in a mixed farming system". As a result of travelling the world exploring circular economy solution for agriculture has resulted in the current development of a 60 Million KWh gas to grid AD project at Grosvenor



## Lucy Montgomery is a Senior Consultant at NNFCC

The bioeconomy consultants. Lucy has an international background in research, focussed on bioprocesses and anaerobic digestion. In her role at NNFCC, Lucy provides clients with a strategic view of feedstock, technology, policy and market development across the bioeconomy. She also specialises in the life-cycle assessment (LCA) of biobased products, such as food ingredients and fine chemicals. In the AD sector, Lucy maintains and updates NNFCC's biogas and biomethane carbon calculator. Part of her work is helping businesses become RHI/GGSS accredited and supporting plants with ongoing sustainability reporting.



## Paul Thompson (Head of Transport Fuels & Landfill Gas)

Paul has many years of experience in energy, both on the policy side and as a project developer. He was the REA's head of policy for 5 years, during which he lead the REA's policy work on areas such as the Renewable Heat Incentive, the FIT and Renewables Obligation and the Renewable Transport Fuel Obligation. He worked for a biogas project developer 2015-19, overseeing 6 biomethane and 7 electricity generation projects through from development and funding to construction and operation. Since then he continues to work as a freelance on a number of projects, with clients including Acorn Bioenergy, Amberside Advisors and Biogen. He has headed up the REA's policy work on renewable transport fuels and landfill gas since September 2020.



#### Angus Paxton, Consultant at AFRY

Angus Paxton has spent 17 years as a consultant at AFRY providing commercial, technical and regulatory advice focussed on GB & European gas, biogas and hydrogen, to a range of clients including governments, regulators, investors, utilities and NGOs. He became an advocate of biogas and biomethane after attending the UK Biomethane Day in 2017. His career at AFRY followed a 9-year career at Transco/National Grid where he planned the NTS. In November 2023 Angus will be re-joining National Grid in the ESO function to lead the team planning the Whole Energy System.



## Mark is a Corporate Finance Adviser in the Department for Energy Security & Net Zero (DESNZ)

Mark joined the Department in December 2019 to advise the Industrial Energy Transformation Fund (IETF) and other industrial decarbonisation policy areas. He moved to the Clean Heat Directorate in June 2023 to focus on Biomethane and Electrification. Prior to DESNZ, Mark worked for BluePath Finance and, before BluePath, as an analyst in the financial markets, focusing on clean technology and renewable energy.

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