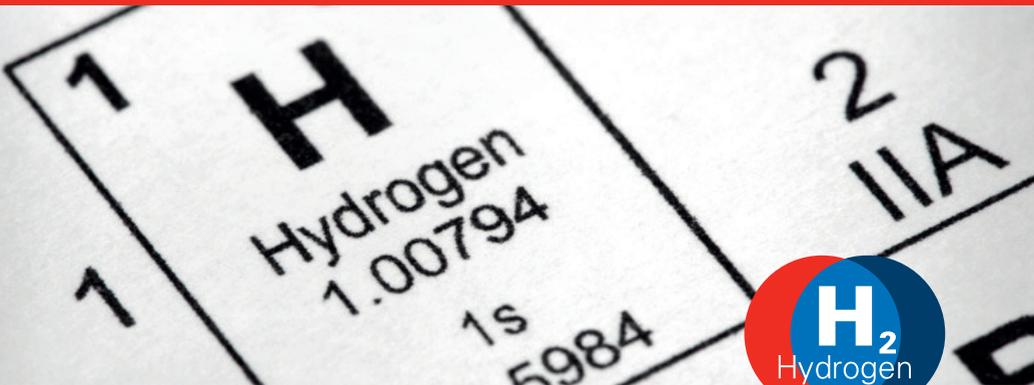


ENERGY MATTERS

Hydrogen training from Kiwa Gastec



KIWA'S NEW TRAINING COURSE - HYDROGEN AND THE NATURAL GAS NETWORK

A one-day course for professionals working in the gas supply and appliance industries.

Kiwa Gastec is involved in several hydrogen projects for Government and commercial organisations. Clearly, hydrogen has a key role in the UK's energy strategy. Technical and management staff in related industries need a sound understanding of the issues surrounding its deployment. This training course is designed to meet that requirement.

The course covers the main aspects of hydrogen as a utility, and why this is seen as a potential route to meeting our legal requirement of an 80% reduction in carbon emissions by 2050.

UNDERSTANDING THE BASICS

Course content.

The course is designed for those with an appreciation of the existing natural gas network and the principles of combustion.

Some of the key areas that will be covered include:

- the environmental benefits of using hydrogen as a fuel
- the principles of combustion and hydrogen-specific aspects
- why different concentrations of hydrogen deserve consideration
- the fundamental principles of the network conversion process from natural gas to hydrogen
- the fundamental safety issues of hydrogen compared to natural gas
- the fundamental principles of hydrogen production
- how to store hydrogen
- how to transport hydrogen
- the principle factors relating to appliance modification for conversion to hydrogen
- the economics of hydrogen production and use.



HYDROGEN REPORTS

Recent projects.

Heating Homes with Hydrogen:

Recently appointed as a result of our technical expertise, to look at Hydrogen For Heat (HY4HEAT) as part of a £25m pilot scheme for the UK Government with the Arup+ consortium.

2050 Energy Scenarios:

Alongside KPMG we looked at the bigger picture, assessing the financial benefits of a change to hydrogen over other low carbon forms of energy.

H21 Leeds City Gate:

Working closely with Northern Gas Networks and Amec Foster Wheeler, we provided a technical, environmental, and economic analysis of the concept of using Leeds as a pilot location for conversion, clearly demonstrating the benefits of decarbonising the existing gas distribution network.

Gas Distribution Company:

We assessed the feasibility of creating a hydrogen generation and distribution system to inject hydrogen into local gas distribution networks.

HyHouse:

We tested the safety implications of using hydrogen in homes in conjunction with DECC (now BEIS) and SSE.

Hydrogen Appliances:

Working on behalf of DECC we investigated the commercial appetite and technical challenges of manufacturing domestic hydrogen appliances.

HyDeploy:

We are part of the National Grid HyDeploy team looking at injecting up to 20%v/v of hydrogen to the private gas grid at Keele University.

Hydrogen Injection into Gas Grids:

We carried out a study for the IEA Greenhouse Gas Programme.



Links to these reports and more can be found on our website: www.kiwa.co.uk

MEET OUR TEAM

Committed to carbon reduction.



Mark Crowther, Technical Director

An internationally renowned chemical engineer with decades of experience in the field of gas consultancy, Mark led the team involved in the hydrogen project.



Iain Summerfield, Head of Consulting

Iain is responsible for the technical output of the Kiwa energy consultancy team and was heavily involved in the feasibility work underlying the various hydrogen-related reports.



Mark Eldridge, General Manager

Dr Mark Eldridge, previously a management consultant, and seasoned General Manager in a number of Operational, Technology and Product Led organisations, delivering business excellence in markets ranging from materials testing to aerospace.



Paul McLaughlin, Principal Consultant

With extensive experience in technical support to hydrogen production, other synthesis gases and operation of high hazard chemical plants, Paul now leads hydrogen and gas consultancy studies.

HYDROGEN'S CHARACTERISTICS

Why attend?



Hydrogen is currently receiving considerable governmental attention, and yet many people in the industry know little about its properties and complexities. We're often asked:

- If hydrogen only has a third of the calorific value of natural gas won't the pipes have to be three times larger and cost three times more?
- How can it be odourised?
- Doesn't it leak from the pipes?
- Modifying a boiler is surely very expensive?
- Can we manufacture dual-fuel boilers?

Our course will equip you with the facts to answer these and many more questions, and so enable you to concentrate on the real unknowns.

About Kiwa Gastec

Kiwa Gastec is a practical testing, training, energy management and low carbon consultancy. We are recognised internationally for our technical expertise and knowledge of energy in most of its forms: solid fuel, gas, oil and renewable (hydrogen, biomass, solar, wind, heat pumps). We also specialise in fuel cell power, mCHP and vehicle refuelling systems.

We test, inspect, train, certify and consult for multinationals, manufacturers, government bodies, SMEs, trade bodies and hospitals.

We have two hydrogen training courses – ‘Hydrogen and the Natural Gas Network’ for professionals working in the gas supply and appliance industries, and a hydrogen course for installers of domestic gas appliances.

Get in touch to find out more.

☎ 01242 677877

✉ enquiries@kiwa.co.uk

www.kiwa.co.uk/hydrogen



Kiwa UK - Cheltenham, Gloucestershire

