

# Hydrogen Services with LRQA

As organizations work towards net-zero strategies in line with COP26, hydrogen becomes a more popular source of power for many industries. This has resulted in an increased need for higher equipment supply, technology innovation and adaption.

LRQA offers a range of products helping clients to evaluate products, demonstrate feasibility, compliance and improve knowledge of global standards in the hydrogen supply chain.

## Net Zero Manufacturing Assurance



Organizations who are looking to adopt hydrogen often find they require specialist insight and experience. Our Net-Zero Manufacturing Assurance service offers a full, modularized hydrogen assurance solution covering design and technology evaluation, independent assessments and many more.

## Approval in Principle



Approval in Principle (AIP) is the systematic approach to review and certify the conceptual design or a new product before placing it into the market. AIP is based on risk assessment and engineering evaluation. It is carried out to ascertain the fundamental design and standards are suitable for the intended service. LRQA assists manufacturers to demonstrate the feasibility of their product for the intended use. It also provides confidence to the end users that the product will be suitable for intended application.

## Certificate of Origin



The certificate of origin is a digital certificate that provides proof of hydrogen production method and assessment of greenhouse gas (GHG) emissions based on the energy source. The certificate can be used to demonstrate compliance with customer or regulatory requirements (e.g. recast Renewable Energy Directive 2009/28/EC). The certificate of origin also helps to demonstrate progress against GHG targets.

## Hydrogen Standards Training



The LRQA knowledge transfer sessions demonstrate the necessary overview of global standards and best practices of the entire supply chain process. Training provides your management teams and customers with confidence in various phases of

the process life cycle, including the production, storage, transportation of hydrogen and fuelling stations.

LRQA experts have worked with many organizations to identify gaps in manufacturing processes and controls, subsequently reducing operational risk.

Training can be tailored to your needs. Usually, a typical approach would be a mix of training and workshops. Resources include access to the detailed global map covering regulations and standards, and email updates.

## Supporting your energy transition

LRQA's experts work with you to integrate changes that support your transition to cleaner energy, operations and asset life cycles.

We cover many areas including renewable energy production and distribution, nuclear power and hydrogen, and have the knowledge and expertise to help you meet your sustainability ambitions. We'll help you meet tightening regulations, improve your carbon footprint, and improve efficiency.

Since 2003 LRQA has been active in a number of international hydrogen initiatives including the International Partnership for Hydrogen and Fuel Cells in the Economy (IPHE) Regulations, Codes, Standards & Safety (RCSS), the Mission Innovation Challenge on Clean Hydrogen, and the International Energy Agency Safety Task.

### Why LRQA?

**Experience and expertise** – with experts on international committees around the world, LRQA is highly experienced in the development of standards and regulations that protect safety and quality, build confidence in the market and inspire investment. Since 2003 LRQA has been active in a number of international hydrogen initiatives including the International Partnership for Hydrogen and Fuel Cells in the Economy (IPHE) Regulations, Codes, Standards & Safety (RCSS), the Mission Innovation Challenge on Clean Hydrogen, and the International Energy Agency Safety Task.

**1. Expediting locally** – working with local regulators and vendors, and with an understanding of the supply/demand risks, LRQA staff help to ensure delivery of the right products at the right time.

- 1. Expertise** – LRQA subject matter experts understand hydrogen, and the unique requirements of hydrogen infrastructure, so they are able to help with design reviews and specifications to ensure the procurement of fit-for-purpose products.
- 2. Global vendor assurance** – building trust and confidence in the supply chain
- 3. Complete range of assurance services** – with no pre-existing global or regional standards for measuring the carbon credentials of hydrogen, LRQA can validate and verify everything from product design through to emissions. Typical services include due diligence, onsite inspection, vendor assessment, design verification, product certification, carbon footprint and GHG emissions verification.

### Summary

The hydrogen economy is evolving rapidly with an enormous number of new projects being created globally. Many pilot plants are now in operation and with global energy prices increasing, the prospects for reducing the difference between natural gas and green hydrogen are promising. However, it will take a few years for the market to develop so we have time to establish standards and best practices that are fit for purpose.

As the market develops, LRQA's customers are telling us that they need a reputable third-party with the experience and expertise to point the way forward; helping regulators to establish practical, workable rules and procedures that protect safety, lower risks and ensure that the vitally important potential of green hydrogen is exploited for everyone's benefit.

## About LRQA

By bringing together unrivaled expertise in certification, brand assurance, cybersecurity, inspection and training, we've become a leading global assurance provider.

We're proud of our heritage, but it's who we are today that really matters, because that's what shapes how we partner with our clients tomorrow. By combining strong values, decades of experience in risk management and mitigation, and a keen focus on the future, we're here to support our clients as they build safer, more secure, more sustainable businesses.

From independent auditing, certification and training; to technical advisory services; to real-time assurance technology; to data-driven supply chain transformation, our innovative end-to-end solutions help our clients negotiate a rapidly changing risk landscape – making sure they're shaping their own future, rather than letting it shape them.

**For more information on our range of assurance and inspection services, visit [lrqa.com/us](https://www.lrqa.com/us)**

### Get in touch

Visit [www.lrqa.com/us](https://www.lrqa.com/us) for more information or email us at [inquiries-usa@lrqa.com](mailto:inquiries-usa@lrqa.com)  
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