

Green Hydrogen and Power-to-X: Opportunities and Applications

COURSE OVERVIEW

This course offers an introduction into the fundamentals of green hydrogen production, storage, and transportation, as well as its integration into Power-to-X (PtX) pathways such as synthetic fuels, ammonia, and chemicals. It provides participants with a comprehensive understanding of how hydrogen produced from renewable energy sources can serve as a cornerstone for the global energy transition. Through practical applications, the course highlights for participants the economic, environmental and technological opportunities presented by green hydrogen and PtX solutions, as well as the challenges associated with scaling up adoption across industries.

WHO SHOULD ATTEND?

The course is intended for energy professionals, policymakers, sustainability managers, engineers, project developers, researchers, and decision makers seeking to understand the role of green hydrogen in decarbonization strategies. It is also valuable for investors, entrepreneurs, and corporate leaders looking to identify opportunities and innovations within the rapidly expanding hydrogen and PtX value chains.

COURSE OUTCOMES

Delegates will gain the skills and knowledge to:

- Explain the principles of green hydrogen production and its role in the energy transition.
- Assess the technical and economic feasibility of Power-to-X applications.
- Identify market opportunities and emerging business models in hydrogen and PtX sectors.
- Analyze the regulatory, policy, and financing frameworks shaping the adoption of hydrogen technologies.
- Apply knowledge of case studies to design or evaluate potential hydrogen and PtX projects.

KEY COURSE HIGHLIGHTS

At the end of the course, you will understand:

- Comprehensive introduction to hydrogen and PtX technologies.
- Practical insights into global trends, policies, and investment opportunities.
- Case studies on industrial, mobility, and power sector applications.
- Exploration of infrastructure, storage, and transport challenges.
- Interactive discussions with industry experts and practitioners.

All our courses are dual-certificate courses. At the end of the training, the delegates will receive two certificates.

1. A GTC end-of-course certificate
2. Continuing Professional Development (CPD) Certificate of completion with earned credits awarded