

N663: Introduction to Green Hydrogen

Instructor(s): Sandy Petrie

Format and Duration

Classroom - 1 Day

Virtual - 2 Sessions

Summary

Green hydrogen is a carbon-free form of fuel and energy storage. It is produced through the electrolysis of water using renewable energy or low carbon power. As such it is a key means of mitigating climate change by playing an important role in the elimination of harmful green house gas emissions. By providing power system, heat and fuel services, green hydrogen can be leveraged to decarbonize vital economic sectors across the global economy. This course enables non-technical attendees to acquire sufficient awareness and understanding to support technical and commercial staff working in green hydrogen production, transport, storage and use.

Learning Outcomes

Participants will learn to:

1. Identify key green hydrogen value chain parameters.
2. Outline green hydrogen opportunities, enablers, challenges, barriers.
3. Outline green hydrogen risks and benefits: technical, commercial, societal.
4. Discuss global examples of Green Hydrogen Projects

Training Method

This is a classroom or virtual classroom course comprising a mixture of lectures, discussion, quizzes and interactive exercises.

Who Should Attend

1. Non-Technical staff (with no prior knowledge) supporting green hydrogen/ decarbonization initiatives and projects.
2. Regulators, financial, legal and ESG professionals about to be active in supporting, assessing and approving green hydrogen initiatives and projects.
3. Recent graduates who want to develop skills to support the green hydrogen economy.
4. Members of regional and national parliaments; government decision makers.

Course Content

Why hydrogen?

- What is hydrogen?
- Uses of hydrogen and its products
- The role of hydrogen in delivering net zero
- Hydrogen safety

Types of Hydrogen production

- What is green hydrogen?
- Green Hydrogen Technologies

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- Hydrogen Storage
- Hydrogen Distribution
- The Green Hydrogen Value Chain
- The role of renewables

Value proposition

- Monetising green hydrogen
- Opportunities, enablers, benefits, issues, challenges, barriers, risks
- Where (and why) is the momentum for green hydrogen
- Global examples of green hydrogen projects
 - In development
 - Appraisal
- The role of governments
- Career development opportunities