Hydrogen Project Development Training Course

Professional Development Training Course Outline

Category	Renewable Energy	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Hydrogen Project Development Training Course provides a practical, industry-focused pathway for understanding how low-emissions hydrogen projects move from early-stage concepts to investment decisions, construction, commissioning, and commercial operation. With global hydrogen demand exceeding 100 Mt in 2025, while low-emissions hydrogen production and electrolyser deployment continue to expand, project developers increasingly need expertise spanning green hydrogen, renewable energy integration, electrolysis, project finance, offtake, infrastructure, certification, regulation, risk management, and commercial strategy. The course addresses the complete hydrogen project lifecycle and highlights the practical challenges that can determine whether a project progresses toward Final Investment Decision (FID) or remains in the development pipeline.

Participants will explore hydrogen project feasibility, technology selection, site assessment, renewable power sourcing, water requirements, electrolyser sizing, hydrogen storage, transportation, derivatives, permitting, ESG, carbon-intensity assessment, bankability, and market development. Particular emphasis is placed on the growing importance of firm offtake agreements, infrastructure, certification, blended finance, and cost reduction, all of which are increasingly important to project bankability. The course also incorporates case-study-based learning so participants can evaluate realistic project-development decisions involving green hydrogen, ammonia, industrial decarbonisation, hydrogen hubs, export corridors, and emerging African markets.

Programme Curriculum

Hydrogen Project Development Training Course

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Course Objectives

By the end of the course, participants will be able to:

1. Evaluate hydrogen project opportunities using market, technical, economic, and strategic criteria.
2. Develop a hydrogen project concept and development roadmap from pre-feasibility through FID.
3. Compare green, blue, low-carbon, and other low-emissions hydrogen pathways.
4. Assess electrolyser technologies, renewable-energy integration, capacity factors, and system configuration.
5. Conduct preliminary site selection, resource assessment, water analysis, and infrastructure screening.
6. Build an initial CAPEX, OPEX, LCOH, financial model, and sensitivity analysis.
7. Structure project finance, blended finance, grants, guarantees, and investment strategies.
8. Design bankable offtake strategies and understand hydrogen demand aggregation.
9. Evaluate hydrogen storage, transportation, pipelines, ports, ammonia, methanol, and export infrastructure.
10. Understand hydrogen certification, carbon-intensity accounting, ESG, and regulatory compliance.
11. Apply risk management, technology risk, construction risk, market risk, and policy-risk frameworks.
12. Develop an integrated FEED-to-FID development strategy supported by commercial and technical due diligence.
13. Analyze emerging hydrogen hubs, industrial clusters, energy-transition projects, and African hydrogen opportunities.

Target Audience

1. Hydrogen project developers
2. Renewable energy professionals
3. Energy and infrastructure investors
4. Project finance and banking professionals
5. Engineering, procurement and construction (EPC) professionals
6. Government, regulators and policymakers
7. Industrial energy and decarbonisation managers

8. Consultants, entrepreneurs and clean-energy specialists

Course Modules

Module 1: Hydrogen Economy, Markets & Project Development Fundamentals

- Hydrogen value chain
- Market intelligence
- Technology pathways
- Project lifecycle
- **Case study:** Analyze a hypothetical **green hydrogen hub** and determine whether its market proposition is commercially viable.

Module 2: Hydrogen Technology & Renewable Energy Integration

- Electrolyser technologies
- Renewable integration
- System sizing
- Balance of plant
- **Case study:** Compare alternative **solar-plus-electrolysis configurations** and select an appropriate development concept.

Module 3: Site Selection, Feasibility & Front-End Engineering

- Site screening
- Pre-feasibility studies
- FEED principles
- Permitting
- **Case study:** Conduct a **multi-criteria site-selection exercise** for a proposed hydrogen production facility.

Module 4: Hydrogen Project Economics & Financial Modelling

- CAPEX and OPEX
- Levelised Cost of Hydrogen (LCOH).
- Financial modelling
- Investment readiness
- **Case study:** Build and stress-test a simplified **hydrogen project financial model** under different electricity-price and utilisation scenarios.

Module 5: Offtake, Commercial Strategy & Hydrogen Markets

- Offtake structures
- Demand creation
- Hydrogen derivatives.
- Commercial strategy
- **Case study:** Evaluate competing **offtake strategies** and identify the structure most likely to support FID.

Module 6: Infrastructure, Storage, Transport & Export Corridors

- Hydrogen storage
- Transportation

- Infrastructure planning
- Export development
- **Case study:** Design a conceptual **hydrogen-to-ammonia export corridor** linking production, port infrastructure, and overseas demand.

Module 7: Regulation, Certification, ESG & Risk Management

- Policy frameworks
- Certification
- ESG
- Risk management
- **Case study:** Develop a **project risk register and ESG action plan** for a large-scale hydrogen development.

Module 8: Financing, FID & Project Execution

- Project finance
- Bankability
- FID readiness
- Execution
- **Case study:** Conduct an **FID readiness review** and identify the critical gaps preventing a hypothetical hydrogen project from reaching investment approval.

Training Methodology

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

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