Hydrogen Economics and Market Analysis 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 Economics and Market Analysis Training Course provides a strategic and commercially focused understanding of the rapidly evolving hydrogen economy, equipping professionals with the knowledge to evaluate green hydrogen, blue hydrogen, low-carbon hydrogen, hydrogen derivatives, renewable energy integration, electrolyzer economics, hydrogen pricing, project finance, and market competitiveness. The course examines how hydrogen is moving from a decarbonization concept into a major clean-energy investment opportunity, with applications across heavy industry, refining, chemicals, mobility, power generation, shipping, aviation fuels, and energy storage. Participants explore the economic drivers shaping hydrogen projects, including CAPEX, OPEX, levelized cost of hydrogen (LCOH), electricity costs, utilization rates, carbon pricing, subsidies, tax incentives, infrastructure costs, financing structures, offtake agreements, and supply-chain economics.

Through practical market analysis and industry case studies, participants learn how to assess hydrogen demand, production pathways, project bankability, market intelligence, investment risk, policy frameworks, regional competitiveness, technology costs, and emerging business models. The course connects technical fundamentals with commercial strategy, techno-economic analysis, scenario planning, competitive intelligence, investment appraisal, and energy-transition economics. By the end of the training, participants will be better positioned to identify viable hydrogen opportunities, interpret market trends, build economic assumptions, evaluate projects, and support strategic decisions in the global net-zero, energy-transition, and clean-hydrogen markets.

Programme Curriculum

Hydrogen Economics and Market Analysis Training Course

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Course Duration

5 days

Course Objectives

1. Understand the fundamentals and commercial drivers of the global hydrogen economy.
2. Analyze green, blue, turquoise, and low-carbon hydrogen production pathways.
3. Evaluate Levelized Cost of Hydrogen (LCOH) and hydrogen production economics.
4. Assess CAPEX, OPEX, electricity costs, utilization, and efficiency in hydrogen projects.
5. Analyze hydrogen supply and demand forecasts across major global markets.
6. Evaluate hydrogen pricing, cost curves, and market competitiveness.
7. Understand electrolyzer economics, renewable power integration, and technology learning curves.
8. Assess hydrogen infrastructure, storage, transportation, pipelines, and logistics economics.
9. Analyze carbon pricing, subsidies, incentives, tax credits, and policy mechanisms affecting project economics.
10. Apply techno-economic analysis (TEA) to hydrogen investment opportunities.
11. Evaluate project finance, bankability, offtake agreements, and investment risks.
12. Conduct market intelligence, competitor analysis, scenario analysis, and regional opportunity assessments.
13. Develop commercially informed strategies for hydrogen investment, market entry, portfolio development, and net-zero growth.

Target Audience

1. Energy executives and managers.
2. Renewable energy professionals.
3. Oil & gas professionals.
4. Investment, banking, and private-equity professionals.
5. Project developers and infrastructure specialists.

6. Policy makers, regulators, and government officials.
7. Consultants, analysts, economists, and market-intelligence professionals
8. Engineers and technical professionals

Course Modules

Module 1: Hydrogen Economy Fundamentals and Global Market Landscape

- Hydrogen value chains, production pathways, applications, and energy-transition economics.
- Green hydrogen, blue hydrogen, low-carbon hydrogen, Power-to-X, and hydrogen derivatives.
- Global hydrogen demand, supply developments, major producers, and emerging markets.
- decarbonization, energy security, industrial competitiveness, and net-zero targets.
- Case study: Comparative assessment of emerging hydrogen hubs and their economic development models.

Module 2: Hydrogen Production Economics and Cost Competitiveness

- Economics of electrolysis, renewable electricity, natural-gas reforming, and carbon capture.
- CAPEX, OPEX, electricity consumption, capacity factors, efficiency, and utilization rates.
- Calculating and interpreting Levelized Cost of Hydrogen (LCOH).
- Sensitivity analysis for electricity prices, electrolyzer costs, operating hours, and financing.
- Case study: LCOH comparison for a utility-scale green hydrogen project under multiple power-price scenarios.

Module 3: Hydrogen Market Demand, Pricing and Forecasting

- Hydrogen demand across refining, ammonia, steel, chemicals, mobility, shipping, and power.
- Market segmentation, demand drivers, adoption barriers, and regional growth patterns.
- Hydrogen pricing, price discovery, cost curves, and competitive positioning.
- Forecasting methods, scenario planning, and uncertainty analysis.
- Case study: Building a hydrogen demand and pricing outlook for a rapidly developing industrial market.

Module 4: Hydrogen Infrastructure, Logistics and Supply-Chain Economics

- Economics of pipelines, compression, liquefaction, storage, terminals, and transportation.
- Comparing hydrogen transportation with ammonia, methanol, and liquid organic hydrogen carriers.
- Infrastructure utilization, economies of scale, network effects, and logistics costs.
- Supply-chain risks, bottlenecks, localization, and infrastructure investment requirements.
- Case study: Economic comparison of exporting hydrogen directly versus exporting hydrogen derivatives.

Module 5: Policy, Regulation, Carbon Markets and Incentives

- Impact of hydrogen strategies, renewable-energy policies, carbon pricing, and emissions standards.
- Government incentives, grants, contracts-for-difference, tax credits, and production support.
- Additionality, temporal matching, lifecycle emissions, certification, and traceability.
- Regulatory risks and their impact on project economics and investment decisions.
- Case study: Evaluating how policy incentives and carbon prices change the competitiveness of green hydrogen.

Module 6: Hydrogen Project Finance and Investment Analysis

- Hydrogen project bankability, financial modelling, WACC, NPV, IRR, payback, and risk-adjusted returns.

- Revenue models, long-term offtake agreements, contracts, guarantees, and price structures.
- Financing challenges associated with technology, market, infrastructure, and policy uncertainty.
- Investment risk assessment, sensitivity analysis, scenario modelling, and due diligence.
- Case study: Investment appraisal of a large-scale hydrogen project using multiple financing and offtake scenarios.

Module 7: Hydrogen Market Intelligence, Competitive Analysis and Business Strategy

- Competitive intelligence for producers, technology providers, developers, and infrastructure companies.
- Benchmarking regional hydrogen markets, project pipelines, technologies, and cost structures.
- SWOT, PESTLE, Porter's Five Forces, market-entry analysis, and strategic positioning.
- Identifying high-potential sectors, emerging business models, partnerships, and investment opportunities.
- Case study: Competitive benchmarking of leading hydrogen projects and development strategies across key markets.

Module 8: Hydrogen Investment Outlook, Scenarios and Strategic Case Studies

- Developing hydrogen market scenarios under different technology, policy, and demand assumptions.
- Evaluating long-term opportunities in green steel, e-fuels, sustainable aviation fuel, ammonia, shipping, and energy storage.
- Assessing technology learning, economies of scale, cost reductions, and market tipping points.
- Building an integrated hydrogen investment and market-entry strategy.
- Case study: Strategic portfolio assessment for an energy company entering the global hydrogen economy.

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
21 Sep 2026	25 Sep 2026	Online	$1,000
21 Sep 2026	25 Sep 2026	Physical	$1,500
21 Sep 2026	25 Sep 2026	Physical	$0
21 Sep 2026	25 Sep 2026	Physical	$0
21 Sep 2026	25 Sep 2026	Physical	$0
21 Sep 2026	25 Sep 2026	Physical	$0
21 Sep 2026	25 Sep 2026	Physical	$0
21 Sep 2026	25 Sep 2026	Physical	$0

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