Wind Energy 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

Wind Energy Market Analysis Training Course is designed to equip energy professionals, analysts, project developers, investors, consultants, policymakers, and business leaders with practical skills for evaluating the rapidly evolving global wind energy market. The course focuses on market intelligence, wind power forecasting, market sizing, competitive intelligence, project economics, LCOE analysis, supply chain dynamics, policy and regulatory analysis, offshore wind, onshore wind, renewable energy auctions, corporate PPAs, grid integration, and energy transition strategies. Wind capacity additions reached around 160 GW globally in 2025, while ongoing challenges include supply-chain constraints, grid connection delays, financing pressures, and policy uncertainty.

Participants will learn how to transform market data into actionable commercial insights through data-driven decision-making, scenario analysis, investment screening, technology benchmarking, risk assessment, and strategic forecasting. Particular attention is given to emerging market dynamics, including AI-enabled analytics, digitalization, predictive maintenance, hybrid renewable projects, energy storage, flexibility markets, offshore wind development, and grid modernization. These capabilities are increasingly important as wind and solar become a larger share of electricity systems and require greater flexibility, infrastructure investment, and sophisticated market analysis.

Programme Curriculum

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Course Duration

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Course Objectives

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

1. Analyze global wind energy market trends, growth drivers, and investment opportunities.
2. Conduct market sizing, segmentation, TAM/SAM/SOM, and demand forecasting.
3. Evaluate onshore and offshore wind market dynamics across major regions.
4. Apply competitive intelligence and benchmarking to wind industry players.
5. Assess wind project economics, CAPEX, OPEX, LCOE, IRR, NPV, and bankability.
6. Analyze renewable energy auctions, CfDs, PPAs, merchant markets, and procurement models.
7. Evaluate policy, regulatory, permitting, and market-design risks.
8. Assess wind turbine technology, innovation, digitalization, and AI-enabled solutions.
9. Analyze global wind supply chains, critical materials, manufacturing capacity, and logistics.
10. Evaluate grid integration, curtailment, energy storage, flexibility, and transmission constraints.
11. Develop market-entry strategies, investment strategies, and commercialization roadmaps.
12. Apply scenario planning, sensitivity analysis, risk analytics, and market forecasting.
13. Produce a professional wind energy market intelligence report and strategic recommendation.

Target Audience

1. Renewable Energy Analysts.
2. Energy & Investment Professionals.
3. Wind Project Developers.
4. Investment & Commercial Teams.
5. Energy Consultants
6. Policy & Regulatory Professionals.
7. Utilities & Energy Companies
8. Entrepreneurs & Business Leaders

Course Modules

Module 1: Global Wind Energy Market Landscape

- Global **wind power market size, growth rates, capacity additions, and market forecasts**
- Major onshore and offshore wind markets and regional growth trajectories.

- Key industry drivers
- Market segmentation by technology, geography, project scale, and ownership model.
- **Case Study:** Comparing the growth trajectories of China, Europe, India, and emerging African wind markets.

Module 2: Wind Market Intelligence & Competitive Analysis

- **Competitive intelligence, market mapping, benchmarking, and competitor profiling**.
- Analysis of turbine OEMs, developers, utilities, investors, and service providers.
- Market-share analysis and **competitive positioning**.
- SWOT, PESTLE, Porter's Five Forces, and strategic-market analysis.
- **Case Study:** Building a competitive landscape for a hypothetical new wind-energy market entrant.

Module 3: Wind Project Economics & Financial Analysis

- Understanding **CAPEX, OPEX, LCOE, revenues, NPV, IRR, and payback periods**.
- Wind resource assessment and its impact on project economics.
- Financial modelling for onshore and offshore wind projects.
- Sensitivity analysis for electricity prices, interest rates, construction costs, and capacity factors.
- **Case Study:** Evaluating the financial attractiveness of two hypothetical wind projects under different market scenarios.

Module 4: Offshore Wind Market Analysis

- Offshore wind technology, market structure, development pipeline, and investment requirements.
- **Fixed-bottom and floating offshore wind** market opportunities.
- Auction structures, permitting, transmission, ports, vessels, and infrastructure.
- Supply-chain constraints and offshore project bankability.
- **Case Study:** Assessing an offshore wind investment opportunity using market, policy, cost, and supply-chain indicators.

Module 5: Policy, Regulation & Market Design

- Renewable-energy targets, incentives, **auctions, CfDs, PPAs, and merchant-market structures**.
- Permitting, land-use, environmental assessment, and grid-connection frameworks.
- Policy-risk and regulatory-risk assessment.
- Understanding how policy changes influence project pipelines and investor confidence.
- **Case Study:** Comparing two hypothetical wind markets with different auction and permitting regimes.

Module 6: Technology, Digitalization & Supply Chains

- Wind turbine technology trends, larger turbines, advanced materials, and performance optimization.
- **AI, machine learning, digital twins, predictive maintenance, and data analytics**.
- Global manufacturing, logistics, critical minerals, rare-earth materials, and supply-chain resilience.
- Technology cost curves and innovation-driven competitiveness.
- **Case Study:** Using a supply-chain risk framework to evaluate turbine sourcing strategies. Current industry analysis highlights concentrated rare-earth and magnet supply chains as an important strategic consideration.

Module 7: Grid Integration, Storage & Energy Markets

- **Grid integration, transmission constraints, curtailment, negative pricing, and system flexibility**.

- Wind forecasting and electricity-market participation.
- Battery storage, hybrid renewable projects, demand response, and flexible generation.
- Power-market pricing and revenue optimization.
- **Case Study:** Designing a hypothetical wind-plus-storage strategy to reduce curtailment and improve market revenues.

Module 8: Strategic Market Forecasting & Investment Decision-Making

- **Scenario planning, market forecasting, risk analytics, and investment screening**
- Building wind-market dashboards and executive-level market intelligence reports.
- Identifying emerging markets, white-space opportunities, and growth segments.
- Developing market-entry, partnership, and commercialization strategies.
- **Case Study:** Creating a five-year market-entry strategy for a hypothetical wind-energy company.

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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