Economic Analysis & Financial Modeling for Renewable Energy

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Toronto (Canada)

UK Traininig
PARTNER



Economic Analysis & Financial Modeling for Renewable Energy

Ref: 20222774_213036 Duration: Toronto (Canada) Fees: 5900 GBP

Course Description

This intensive 1-week course provides a comprehensive understanding of economic analysis and financial modeling for renewable energy projects. Participants will learn to evaluate project feasibility, structure financing, assess risks, and make informed investment decisions. The course combines theoretical concepts with hands-on modeling exercises using real-world case studies.

Learning Objectives

- Develop proficiency in building comprehensive financial models for renewable energy projects
- Understand key economic drivers and financing structures in the renewable energy sector
- Master techniques for project valuation, risk assessment, and sensitivity analysis
- Learn to interpret and present financial model outputs for decision-making
- Gain insights into industry best practices and emerging trends in renewable energy finance

Course Modules

Day 1: Fundamentals of Renewable Energy Economics

- Overview of renewable energy technologies and markets
- Key economic drivers and policy frameworks
- Introduction to project finance and investment analysis
- Levelized Cost of Energy LCOE calculations

Day 2: Financial Modeling Basics for Renewable Energy

- Excel modeling best practices and techniques
- Building the model framework and assumptions
- Revenue forecasting and operating expenses
- Capital expenditures and depreciation modeling

Day 3: Advanced Financial Modeling Techniques

- Debt financing and sculpting
- Tax equity structures and flip mechanics
- Cash flow waterfalls and distribution modeling
- Key performance indicators and financial ratios



Day 4: Risk Analysis and Valuation

- Sensitivity analysis and scenario modeling
- Monte Carlo simulation for risk assessment
- Project valuation methodologies NPV, IRR, MOIC
- Cost of capital and WACC calculations

Day 5: Real-world Applications and Case Studies

- Modeling for different renewable technologies solar, wind, storage
- Case study: Utility-scale solar project financial model
- Case study: Offshore wind farm investment analysis
- Emerging trends: Green hydrogen and energy storage modeling

Practical Wins for Participants

- Develop a comprehensive financial model for a renewable energy project from scratch
- Conduct thorough risk analysis and present findings to stakeholders
- Structure and optimize project financing to maximize returns
- Create professional-quality model outputs and investment memorandums

