

Renewable Energy & Sustainability: Powering a Green Future

3 – 7 May 2027
Barcelona (Spain)

UK Training

PARTNER



Renewable Energy & Sustainability: Powering a Green Future

Ref: 322867_217071 **Date:** 3 – 7 May 2027 **Location:** Barcelona (Spain) **Fees:** 5900 GBP

Course Description

This intensive 5-day course provides a comprehensive overview of renewable energy technologies and sustainable practices. Participants will gain in-depth knowledge of various clean energy sources, energy efficiency strategies, and the policy landscape shaping the transition to a sustainable future. Through a combination of theoretical concepts and practical applications, students will develop the skills needed to drive innovation in the renewable energy sector.

Learning Objectives

- Understand the fundamental principles and applications of major renewable energy technologies
- Analyze the environmental and economic impacts of different energy sources
- Develop strategies for improving energy efficiency in various sectors
- Evaluate renewable energy policies and their effects on sustainability goals
- Design basic renewable energy systems for residential and commercial applications
- Assess the challenges and opportunities in transitioning to a clean energy economy

Course Modules

Day 1: Introduction to Renewable Energy

- Global energy landscape and sustainability challenges
- Fundamentals of energy systems and conversions
- Overview of renewable energy technologies
- Energy and carbon accounting methodologies

Day 2: Solar and Wind Energy Systems

- Solar photovoltaic and thermal technologies
- Wind energy principles and turbine designs
- Site assessment and system sizing
- Grid integration and energy storage solutions

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A graphic of a chessboard with several chess pieces. A large gold king piece is in the foreground, with a silver pawn and a silver knight behind it. The board is checkered, and there are concentric circles in the background.

Day 3: Hydropower, Geothermal, and Bioenergy

- Hydroelectric power generation and environmental considerations
- Geothermal energy resources and power plants
- Biomass and biofuel production technologies
- Waste-to-energy systems and circular economy concepts

Day 4: Energy Efficiency and Smart Grids

- Building energy efficiency strategies and green building design
- Industrial energy management and process optimization
- Smart grid technologies and demand response systems
- Electric vehicles and sustainable transportation

Day 5: Sustainable Energy Policy and Future Trends

- Renewable energy policies and incentives
- Carbon pricing and emissions trading systems
- Financing renewable energy projects
- Emerging technologies and future of sustainable energy

Practical Wins for Participants

- Ability to design a basic solar PV or wind energy system for a specific site
- Skills to conduct an energy audit and propose efficiency improvements
- Knowledge to evaluate the feasibility and impact of renewable energy policies
- Capacity to develop a sustainable energy action plan for an organization or community