Renewable Energy Project Planning and Impact Assessment Training Course



26 - 30 Oct 2026

Boston

7500 € (Per Person)

Ref: #ENV7748_102316

Course Introduction / Overview:

The global transition towards a sustainable energy future is accelerating, creating an unprecedented demand for professionals skilled in planning and executing renewable energy projects with a keen awareness of their environmental and social footprints. This comprehensive training course is meticulously designed to bridge the critical gap between project development and environmental stewardship. It provides a holistic framework for navigating the entire lifecycle of renewable energy projects, from initial conception and feasibility studies to environmental impact assessment (EIA), stakeholder engagement, and sustainable operation. Drawing upon established principles, such as those discussed by authors like Benjamin K. Sovacool in his analyses of energy policy and socio-technical transitions, this program delves into the practical complexities of the field. Participants will explore concepts found in foundational texts like "Renewable Energy: Power for a Sustainable Future," gaining the expertise to balance technical requirements, financial viability, and regulatory compliance. BIG BEN Training Center has developed this course to empower participants to lead the charge in developing clean energy infrastructure that is not only efficient and profitable but also environmentally responsible and socially equitable.

Target Audience / This training course is suitable for:

- Project Managers and Directors in the energy sector.
- Environmental Consultants and Scientists.
- Engineers (Civil, Electrical, Mechanical, Environmental).
- Government Regulators and Policy Advisors.
- Urban and Regional Planners.
- Investment Analysts and Finance Professionals specializing in infrastructure.
- Corporate Sustainability and CSR Officers.
- Legal Advisors specializing in environmental and energy law.
- Community Relations and Stakeholder Engagement Specialists.
- Construction and Operations Managers for energy facilities.

Target Sectors and Industries:

- Energy and Utilities.
- Environmental Consulting and Services.
- Engineering, Procurement, and Construction (EPC).
- Governmental bodies and regulatory agencies.
- International Development Organizations and NGOs.
- Banking, Investment, and Financial Services.
- Real Estate and Infrastructure Development.
- Heavy Manufacturing and Industrial sectors transitioning to renewables.
- Legal and Professional Services.
- Technology and Equipment Manufacturing for the renewable sector.

Target Organizations Departments:

- Project Management Office (PMO).
- Environmental, Health, and Safety (EHS).
- Sustainability and Corporate Social Responsibility (CSR).
- Engineering and Technical Services.
- Strategic Planning and Business Development.
- Regulatory Affairs and Compliance.
- Finance and Investment.
- Legal Department.
- Operations and Maintenance.
- Public Relations and Stakeholder Management.

Course Offerings:

By the end of this course, the participants will have able to:

- Master the fundamentals of various renewable energy technologies and their applications.
- Conduct comprehensive feasibility studies and site selection analyses for energy projects.
- Develop and manage a full Environmental Impact Assessment (EIA) process.
- Identify, predict, and evaluate the environmental and social impacts of projects.
- Design effective mitigation and environmental management plans (EMPs).
- Navigate complex legal frameworks and permitting requirements for renewable energy.
- Implement robust stakeholder engagement and community consultation strategies.
- Analyze the financial viability and risk profiles of renewable energy investments.
- Integrate principles of life cycle assessment into project planning and design.
- Oversee the environmental compliance of a project during construction and operation.

Course Methodology:

The training methodology at BIG BEN Training Center is designed to be immersive, practical, and highly interactive, ensuring that participants can immediately apply their learning in a professional context. We move beyond traditional lecture-based formats to a blended approach that emphasizes experiential learning. The course is built around real-world case studies of successful and challenging renewable energy projects from around the globe, allowing participants to analyze complex scenarios and decision-making processes. Interactive workshops and group exercises will be used extensively, where participants will collaborate to develop mock feasibility reports, scope EIA studies, and create stakeholder engagement plans. Facilitated discussions and brainstorming sessions encourage the sharing of diverse perspectives and professional experiences. The curriculum incorporates simulation activities that challenge participants to navigate regulatory hurdles and manage project risks in a controlled environment. Our expert instructors provide continuous feedback and facilitate a dynamic learning environment, ensuring that theoretical knowledge is firmly connected to practical application and problem-solving skills essential for success in the renewable energy sector.

Course Agenda (Course Units):

Unit One: Foundations of Renewable Energy and Project Lifecycle

- Introduction to Renewable Energy Technologies (Solar, Wind, Hydro, Geothermal, Biomass).
- The Global Energy Transition and Policy Landscape.
- Understanding the Renewable Energy Project Lifecycle from Concept to Decommissioning.
- Key Stakeholders and Their Roles in Project Development.
- Introduction to Environmental and Social Governance (ESG) in Energy.
- Fundamentals of Project Planning and Scoping.
- Initial Site Screening and Pre-Feasibility Considerations.

Unit Two: Project Feasibility and Site Assessment

- Conducting Detailed Technical Feasibility Studies.
- Resource Assessment for Wind and Solar Energy Projects.
- Geotechnical and Hydrological Surveys for Project Siting.
- Grid Connection Feasibility and Infrastructure Requirements.
- Economic and Financial Viability Analysis.
- Supply Chain and Technology Selection Criteria.
- Developing a Comprehensive Feasibility Report.

Unit Three: The Environmental Impact Assessment (EIA) Process

- Legal and Regulatory Frameworks for EIA.
- The EIA Process Step-by-Step: Screening, Scoping, and Baseline Studies.
- Techniques for Impact Identification and Prediction.
- Assessing Impacts on Biodiversity, Water, Air, and Soil.
- Socio-Economic Impact Assessment (SIA).
- Public Consultation and Participation in the EIA Process.
- Developing the Environmental Impact Statement (EIS).

Unit Four: Mitigation, Management, and Regulatory Compliance

- Designing Effective Environmental Mitigation and Enhancement Measures.
- Developing a Comprehensive Environmental Management Plan (EMP).
- Environmental Monitoring during Construction and Operation Phases.
- Navigating the Permitting and Approval Process.
- Compliance with National and International Environmental Standards.
- Strategies for Effective Stakeholder Engagement and Conflict Resolution.
- Understanding the Social License to Operate.

Unit Five: Advanced Topics in Sustainable Project Management

- Financial Modeling and Investment Risk Analysis for Renewable Projects.
- Introduction to Life Cycle Assessment (LCA) for Energy Systems.
- Climate Change Resilience and Adaptation in Project Design.
- Project Decommissioning and Site Restoration Planning.
- Health and Safety Management in Renewable Energy Projects.
- Reporting and Communicating Environmental Performance.
- Future Trends and Innovations in Sustainable Energy Development.

FAQ:

Qualifications required for registering to this course?

There are no requirements.

How long is each daily session, and what is the total number of training hours for the course?

This training course spans five days, with daily sessions ranging between 4 to 5 hours, including breaks and interactive activities, bringing the total duration to 20 - 25 training hours.

Something to think about:

Considering the entire life cycle of a renewable energy project, from manufacturing to decommissioning, how can we truly quantify its 'net' environmental benefit beyond just carbon displacement?

What unique qualities does this course offer compared to other courses?

This course distinguishes itself through its integrated and holistic approach, seamlessly weaving together the technical aspects of project planning with the critical nuances of environmental and social impact assessment. Unlike programs that focus narrowly on either project management or environmental science, this training provides a comprehensive 360-degree view essential for modern energy professionals. The curriculum is built upon a foundation of real-world applicability, moving beyond theoretical concepts to immerse participants in complex case studies that mirror the challenges they will face in the field. A significant emphasis is placed on navigating the intricate web of regulatory compliance, financial viability, and stakeholder engagement, providing practical strategies for achieving a "social license to operate". Furthermore, the course content is forward-looking, incorporating advanced topics such as Life Cycle Assessment (LCA) and climate change adaptation, ensuring participants are not just prepared for today's challenges but are also equipped to lead in the future of sustainable energy development. The interactive methodology fosters a deep, practical understanding that empowers participants to lead projects that are not only successful but also truly sustainable.