# Carbon Accounting for Renewable Energy Training Course

Professional Development Training Course Outline

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|---|---|---|---|
| **Category** | Renewable Energy | **Duration** | 5 Days |
| **Base Fee** | $1,500 USD | **Delivery Mode** | Online / On-site Hybrid |

## Course Introduction

Carbon Accounting for Renewable Energy Training Course is designed to build advanced capabilities in greenhouse gas (GHG) emissions measurement, carbon footprint management, renewable energy decarbonization strategies, and climate action reporting. This course equips participants with the knowledge to quantify, verify, and manage carbon impacts across renewable energy projects, including solar PV, wind power, hydropower, bioenergy, battery storage, and hybrid energy systems.

The program combines carbon management principles, renewable energy analytics, emissions inventory development, sustainability reporting, and climate risk assessment with real-world applications. Participants explore industry case studies covering utility-scale solar farms, offshore wind projects, corporate renewable energy procurement, carbon-neutral energy operations, and renewable energy carbon reduction strategies. Through interactive learning, data-driven exercises, and practical tools, learners develop the skills required to support global climate goals, energy transition initiatives, ESG reporting requirements, and sustainable business transformation.

## Programme Curriculum

**Carbon Accounting for Renewable Energy Training Course**

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**Course Duration**

5 days

**Course Objectives**

By completing this Carbon Accounting for Renewable Energy Training Course, participants will be able to:

1. Understand advanced carbon accounting principles, GHG Protocol standards, and climate governance frameworks.
2. Develop organizational and project-level GHG emissions inventories for renewable energy systems.
3. Apply Scope 1, Scope 2, and Scope 3 emissions accounting methodologies.
4. Calculate carbon footprints for solar, wind, hydro, biomass, and energy storage projects.
5. Implement ISO 14064 carbon quantification and verification practices.
6. Analyze renewable energy lifecycle emissions and carbon intensity metrics.
7. Use carbon accounting software, digital sustainability platforms, and emissions databases.
8. Evaluate the role of renewable energy certificates (RECs), guarantees of origin, and carbon credits.
9. Understand carbon offsetting, carbon markets, and climate investment mechanisms.
10. Develop effective ESG, sustainability, and climate disclosure reports.
11. Apply Science-Based Targets (SBTi) and Net Zero transition pathways.
12. Perform carbon reduction assessments for renewable energy portfolios.
13. Support organizations in achieving decarbonization, energy transition, and climate resilience goals.

**Target Audience**

1. Renewable Energy Engineers and Project Developers
2. Sustainability and ESG Professionals
3. Carbon Accounting and Climate Consultants
4. Environmental Managers and Compliance Specialists
5. Energy Auditors and Carbon Analysts
6. Corporate Sustainability Reporting Teams
7. Government, Policy, and Climate Program Professionals
8. Researchers, Academics, and Clean Energy Entrepreneurs

**Course Modules**

**Module 1: Fundamentals of Carbon Accounting and Climate Change**

- Introduction to carbon accounting principles, climate science, and decarbonization strategies
- Understanding GHG Protocol Corporate Standard and emission boundaries
- Overview of global climate policies, Net Zero commitments, and carbon neutrality
- Carbon footprint concepts including baseline emissions and reduction pathways
- Case Study: Global technology company achieving Net Zero through renewable energy transition

**Module 2: Greenhouse Gas Emissions Measurement and Reporting**

- Understanding Scope 1, Scope 2, and Scope 3 emissions calculations
- Developing organizational GHG inventories and emissions measurement systems
- Applying emission factors and activity data management techniques
- Introduction to ISO 14064-1 greenhouse gas reporting requirements
- Case Study: Corporate renewable energy procurement reducing Scope 2 emissions

**Module 3: Carbon Accounting for Solar Energy Projects**

- Carbon lifecycle assessment of solar photovoltaic (PV) systems
- Measuring embodied carbon in solar manufacturing and installation
- Evaluating operational emissions and carbon savings from solar generation
- Understanding solar project carbon reduction methodologies
- Case Study: Utility-scale solar farm carbon footprint assessment

**Module 4: Carbon Accounting for Wind, Hydro, and Bioenergy Systems**

- Measuring lifecycle emissions of wind energy projects
- Carbon assessment approaches for hydropower development
- Evaluating biomass sustainability and carbon neutrality claims
- Comparing renewable energy technologies using carbon intensity indicators
- Case Study: Offshore wind project lifecycle carbon analysis

**Module 5: Renewable Energy Certificates, Carbon Credits, and Carbon Markets**

- Understanding RECs, carbon credits, offsets, and renewable energy tracking systems
- Exploring voluntary and compliance carbon markets
- Evaluating carbon project credibility and additionality principles
- Linking renewable energy projects with climate finance opportunities
- Case Study: Renewable energy developer monetizing carbon credits

**Module 6: Life Cycle Assessment (LCA) and Carbon Data Analytics**

- Applying Life Cycle Assessment methodologies for renewable energy systems
- Managing carbon datasets and sustainability performance indicators
- Using digital tools for carbon calculations and reporting automation
- Understanding carbon intensity, avoided emissions, and energy efficiency metrics
- Case Study: Battery storage project lifecycle emissions evaluation

**Module 7: ESG Reporting, Climate Disclosure, and Net Zero Strategies**

- Preparing climate disclosures aligned with TCFD, ISSB, CDP, and ESG frameworks
- Developing renewable energy carbon reduction roadmaps
- Integrating carbon accounting into corporate sustainability strategies
- Measuring progress toward Science-Based Targets and Net Zero goals
- Case Study: Multinational corporation ESG transformation using renewable energy

**Module 8: Advanced Carbon Management and Future Trends**

- Exploring emerging trends in AI-powered carbon accounting and digital MRV systems
- Understanding carbon removal technologies and negative emissions strategies

- Integrating renewable energy with climate resilience planning
- Developing organizational carbon management frameworks
- Case Study: Smart renewable energy ecosystem using AI-based carbon monitoring

### 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 |

| Start Date | End Date | Location | Price |
|---|---|---|---|
| **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 |

Ready to enroll or request a customized program? Book online or contact us:

**Register Online Now**

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