Renewable Energy Project Monitoring and Evaluation 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

Introduction

Renewable Energy Project Monitoring and Evaluation (M&E) Training Course is designed to equip professionals with practical, data-driven skills for planning, tracking, measuring, and improving renewable energy projects. The course focuses on results-based management, project performance, impact measurement, renewable energy indicators, data analytics, ESG, climate action, SDG alignment, digital monitoring, risk management, and evidence-based decision-making. Participants will learn how to develop robust M&E frameworks that demonstrate whether solar, wind, mini-grid, hydropower, battery storage, clean cooking, and other energy-transition initiatives are delivering measurable technical, financial, environmental, and social outcomes.

Through practical exercises, real-world case studies, project dashboards, indicator development, theory of change, logical frameworks, data collection tools, evaluation techniques, and performance reporting, participants will strengthen their ability to turn project data into actionable insights. The training emphasizes impact evaluation, sustainability, climate resilience, energy access, gender and social inclusion, carbon reduction, stakeholder accountability, and continuous improvement, enabling organizations to improve project effectiveness while demonstrating value to funders, governments, communities, investors, and development partners.

Programme Curriculum

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Course Objectives

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

1. Develop results-based M&E frameworks for renewable energy projects.
2. Design SMART KPIs and performance indicators for clean energy initiatives.
3. Apply Theory of Change and Logical Framework approaches to project planning.
4. Establish effective baseline, monitoring, and evaluation systems.
5. Use data analytics and digital dashboards to track project performance.
6. Measure energy access, reliability, affordability, and service quality outcomes.
7. Assess environmental, social, and climate impacts, including emissions reduction.
8. Integrate ESG, SDG, gender, and social inclusion indicators into M&E systems.
9. Conduct mid-term, outcome, impact, and end-line evaluations.
10. Identify and manage project risks, assumptions, dependencies, and performance gaps.
11. Apply GIS, digital data collection, remote monitoring, and visualization tools where appropriate.
12. Prepare evidence-based M&E reports, donor reports, dashboards, and management briefs.
13. Use monitoring evidence for adaptive management, investment decisions, accountability, and continuous improvement.

Target Audience

1. Renewable energy project managers and coordinators
2. Monitoring, Evaluation, Research and Learning (MERL/M&E) professionals
3. Renewable energy engineers and technical specialists
4. Government energy and climate-sector officials
5. NGO and development-agency project staff
6. ESG, sustainability, and climate professionals
7. Donor, investor, and development-finance professionals
8. Consultants, researchers, academics, and independent evaluators

Course Modules

Module 1: Foundations of Renewable Energy Project M&E

- Principles and purpose of **monitoring and evaluation** in renewable energy projects.
- Results chains: **inputs, activities, outputs, outcomes, and impact**.
- Linking renewable energy projects to **SDGs, climate targets, and energy-transition priorities**.
- Introduction to **results-based management and adaptive management**.
- **Case Study:** Evaluating a rural solar mini-grid project against planned energy-access outcomes.

Module 2: M&E Frameworks, Theory of Change and KPIs

- Developing a practical **Theory of Change** for clean energy interventions.
- Building **Logical Frameworks and Results Frameworks**.
- Selecting SMART **KPIs, baselines, targets, milestones, and indicators**.
- Designing technical, financial, environmental, and social performance indicators.
- **Case Study:** Creating a KPI framework for a utility-scale solar PV project.

Module 3: Data Collection, Management and Quality Assurance

- Designing **data collection tools, surveys, checklists, interviews, and digital forms**.
- Establishing baseline and routine monitoring systems.
- Data quality dimensions: **accuracy, completeness, consistency, timeliness, and reliability**.
- Applying digital tools, mobile data collection, **GIS, remote monitoring, and IoT-enabled data**.
- **Case Study:** Building a data-quality system for distributed solar installations across multiple communities.

Module 4: Renewable Energy Performance Monitoring

- Monitoring **generation, capacity, availability, reliability, efficiency, and downtime**.
- Tracking financial, procurement, implementation, and schedule performance.
- Monitoring **energy access, affordability, customer satisfaction, and service continuity**.
- Developing performance dashboards and **data visualization**.
- **Case Study:** Using operational data to identify performance gaps in a wind farm.

Module 5: Environmental, Social and Climate Impact Evaluation

- Measuring **GHG emissions reductions, carbon impact, resource efficiency, and environmental benefits**.
- Integrating **ESG, climate resilience, biodiversity, and environmental safeguards**.
- Assessing gender equality, inclusion, livelihoods, and community outcomes.
- Linking project results to **SDG 7, SDG 13, just transition, and climate action**.
- **Case Study:** Evaluating the social and climate impact of a clean-energy access program.

Module 6: Evaluation Methods and Impact Measurement

- Understanding **process, formative, mid-term, outcome, and impact evaluation**.
- Selecting qualitative, quantitative, and **mixed-methods evaluation** approaches.
- Developing evaluation questions, sampling strategies, and evidence matrices.
- Measuring **additionality, attribution, contribution, sustainability, and scalability**.
- **Case Study:** Conducting an outcome evaluation of a solar home systems program.

Module 7: Risk, ESG, Stakeholder Engagement and Adaptive Management

- Identifying **technical, financial, environmental, social, regulatory, and climate risks**.
- Developing risk indicators, mitigation measures, and early-warning mechanisms.
- Integrating **ESG and stakeholder accountability** into project M&E.
- Using monitoring evidence for **adaptive management and continuous improvement**.
- **Case Study:** Managing performance and stakeholder risks during a battery energy-storage deployment.

Module 8: M&E Reporting, Dashboards and Decision-Making

- Preparing professional **M&E reports, donor reports, management briefs, and learning products**.
- Developing executive dashboards for **real-time or periodic performance monitoring**.
- Communicating findings through data storytelling and evidence visualization.
- Turning M&E results into **investment, policy, operational, and scaling decisions**.
- **Case Study:** Developing a management dashboard and evaluation report for a national renewable-energy portfolio.

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

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

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Email: info@fineskilltrainingcenter.com | Website: www.fineskilltrainingcenter.com