Energy Performance Contracting 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

Energy Performance Contracting (EPC) is a strategic financing and implementation model that enables organizations to achieve measurable energy efficiency, cost savings, carbon reduction, and sustainability outcomes with reduced upfront capital requirements. Energy Performance Contracting Training Course equips professionals with the knowledge and practical tools to design, evaluate, procure, negotiate, finance, implement, and monitor EPC projects. Participants will explore Energy Service Companies (ESCOs), guaranteed energy savings, shared savings, energy audits, Measurement & Verification (M&V), energy baselining, performance guarantees, project finance, risk allocation, lifecycle cost optimization, decarbonization, and net-zero strategies.

The course combines proven EPC frameworks with emerging trends in digital energy management, smart buildings, IoT-enabled energy monitoring, AI-driven optimization, renewable energy integration, green finance, ESG, carbon accounting, climate resilience, and sustainable infrastructure. Through practical exercises and real-world EPC case studies, participants will learn how to transform energy-saving opportunities into bankable projects, establish robust contractual structures, manage technical and financial risks, verify performance, and maximize long-term return on investment. The program is suitable for organizations seeking to accelerate energy transition, operational efficiency, climate action, and net-zero targets through performance-based energy investments.

Programme Curriculum

Energy Performance Contracting Training Course

Introduction

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Course Duration

5 days

Course Objectives

By the end of this training, participants will be able to:

1. Understand the Energy Performance Contracting (EPC) business model and its role in accelerating energy efficiency.
2. Identify and evaluate energy conservation measures (ECMs) and high-impact energy-saving opportunities.
3. Conduct and interpret energy audits, energy baselines, and feasibility assessments.
4. Develop technically and financially viable EPC project proposals and business cases.
5. Understand different ESCO models, shared-savings structures, and guaranteed-savings contracts.
6. Apply effective Measurement & Verification (M&V) principles to quantify verified energy savings.
7. Develop appropriate performance guarantees, KPIs, benchmarks, and savings verification mechanisms.
8. Evaluate EPC financing, project finance, green finance, and investment structures.
9. Allocate technical, financial, operational, and performance risks among project stakeholders.
10. Develop effective EPC procurement, tendering, bid evaluation, and contract management strategies.
11. Integrate renewable energy, smart technologies, IoT, automation, and digital energy management into EPC projects.
12. Connect EPC initiatives with ESG, carbon reduction, climate targets, and net-zero strategies.
13. Manage EPC projects throughout their lifecycle to achieve sustainable energy savings, ROI, resilience, and long-term performance.

Target Audience

1. Energy Managers & Energy Efficiency Professionals
2. Facility & Building Managers
3. Sustainability, ESG & Net-Zero Professionals
4. Engineers, Energy Auditors & Technical Consultants
5. ESCOs, EPC Contractors & Project Developers
6. Financial Institutions, Investors & Project Finance Professionals
7. Government, Utilities & Public-Sector Procurement Officials
8. Corporate Executives, Procurement Managers & Infrastructure Decision-Makers

Course Modules

Module 1: Fundamentals of Energy Performance Contracting

- EPC concepts, principles, benefits, and market evolution
- Role and responsibilities of ESCOs, clients, financiers, consultants, and contractors
- Guaranteed savings vs. shared savings models
- EPC project lifecycle: opportunity identification to contract close-out
- Case Study: Commercial building EPC project demonstrating energy savings and reduced operating costs

Module 2: Energy Auditing, Baseline Development & Opportunity Identification

- Energy audits, energy baselining, benchmarking, and consumption profiling
- Identification and prioritization of Energy Conservation Measures (ECMs)
- Technical assessment of HVAC, lighting, motors, pumps, compressed air, and building systems
- Energy-saving calculations, load analysis, and cost-benefit assessment
- Case Study: Industrial facility energy audit converted into a bankable EPC opportunity

Module 3: EPC Business Models, Financial Analysis & Project Finance

- ESCO business models, capital structures, and revenue mechanisms
- Project economics: CAPEX, OPEX, NPV, IRR, payback period, ROI, and lifecycle costs
- Shared savings, guaranteed savings, and hybrid EPC financing
- Green finance, sustainability-linked financing, and climate investment
- Case Study: Financing a multi-site energy efficiency program through an ESCO model

Module 4: EPC Contract Structure, Procurement & Risk Allocation

- Essential components of an Energy Performance Contract
- Procurement strategies, RFP development, tendering, and bid evaluation
- Performance guarantees, warranties, penalties, incentives, and dispute mechanisms
- Risk allocation covering technology, energy prices, operational changes, and performance
- Case Study: EPC tender evaluation and contract negotiation for a public-sector facility

Module 5: Measurement & Verification of Energy Savings

- Fundamentals of **Measurement & Verification (M&V)** and performance verification
- Energy baselines, adjustment factors, operating conditions, and normalization
- **IPMVP principles**, meters, sensors, data collection, and verification protocols
- Digital monitoring, **IoT, smart meters, analytics, and automated M&V**
- **Case Study:** Verifying guaranteed savings from a large commercial HVAC optimization project

Module 6: EPC Technologies & Digital Energy Transformation

- High-efficiency HVAC, LED lighting, motors, pumps, drives, and building automation
- Building Energy Management Systems (BEMS) and smart building technologies
- IoT-enabled energy monitoring, real-time analytics, and predictive maintenance
- AI-driven energy optimization, digital twins, and intelligent controls
- Case Study: Smart building retrofit combining automation, IoT sensors, and AI-based optimization

Module 7: Renewable Energy, Decarbonization & Net-Zero EPC

- Integrating solar PV, battery storage, renewable energy, and energy efficiency
- EPC strategies for decarbonization and carbon reduction
- ESG reporting, carbon accounting, climate targets, and net-zero pathways
- Energy efficiency as a foundation for energy transition and climate resilience
- Case Study: Hybrid solar-plus-efficiency EPC project supporting a corporate net-zero target

Module 8: EPC Project Implementation, Performance Management & Best Practices

- Project mobilization, implementation, commissioning, and quality assurance
- Monitoring contractual KPIs and maintaining guaranteed energy performance
- Stakeholder engagement, change management, reporting, and operational optimization
- Long-term performance management, savings persistence, and contract close-out
- Case Study: Post-implementation review of a successful multi-year EPC program and lessons learned

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

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