Training Course on Energy Transition and Sustainable Resource Management (Executive)

Professional Development Training Course Outline

Category	CEOs and Directors	**Duration**	10 Days
Base Fee	$3,000 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

In an era defined by **climate change urgency** and **resource scarcity**, the imperative for a global **Energy Transition** and robust **Sustainable Resource Management** has never been more critical. Training Course on Energy Transition and Sustainable Resource Management (Executive) is designed to equip senior leaders with the strategic foresight and practical tools necessary to navigate this complex landscape. We delve into cutting-edge **renewable energy technologies**, **decarbonization pathways**, and **circular economy principles**, empowering executives to drive transformative change within their organizations and contribute to a resilient, low-carbon future.

The course provides a holistic understanding of the **interconnected challenges** and **unprecedented opportunities** arising from this paradigm shift. Participants will gain insights into **green finance**, **policy frameworks**, and **innovative business models** that are reshaping industries worldwide. Through expert-led sessions and real-world case studies, attendees will develop the leadership capabilities to champion **sustainable development goals (SDGs)**, enhance **organizational resilience**, and unlock new avenues for **economic growth** in the evolving **green economy**.

Programme Curriculum

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Course Duration

10 days

Course Objectives

1. Develop a comprehensive understanding of effective strategies for **carbon emission reduction** and achieving **net-zero targets** across various sectors.
2. Critically assess the feasibility and deployment of diverse **renewable energy sources** (solar, wind, geothermal, hydro) in large-scale operations.
3. Apply **circular economy models** to optimize resource utilization, minimize waste, and create closed-loop systems.
4. Understand the landscape of **sustainable finance**, **impact investing**, and **ESG criteria** to secure funding for green projects.
5. Design and implement **innovative business models** that integrate environmental and social sustainability into core operations.
6. Analyze evolving **climate policies**, **carbon pricing mechanisms**, and international agreements like the Paris Agreement.
7. Identify and implement advanced **energy efficiency solutions** and **smart grid technologies** for operational savings.
8. Develop strategies for building **resilient and sustainable supply chains**, from raw materials to end-of-life.
9. Explore the role of **AI, IoT, and big data analytics** in advancing energy transition and resource management.
10. Integrate **CSR initiatives** and **stakeholder engagement** into sustainability strategies.
11. Develop frameworks for **climate risk assessment** and building **organizational resilience** to environmental shocks.
12. Foster a culture of **green innovation** and develop new technologies and solutions for a sustainable future.
13. Acquire the project management skills necessary to plan, execute, and monitor **large-scale energy transition projects**.

Organizational Benefits

- Position themselves as leaders in **sustainability** and **corporate responsibility**, attracting ethically conscious customers and investors.
- Implement **energy efficiency** and **resource optimization** strategies leading to substantial operational cost reductions.
- Proactively adapt to evolving **environmental regulations** and **carbon pricing**, avoiding penalties and ensuring compliance.
- Identify and capitalize on emerging **green markets** and **sustainable product/service development**.
- Appeal to a workforce increasingly prioritizing **purpose-driven organizations** and **sustainable practices**.
- Streamline processes, reduce waste, and enhance resource productivity through **circular economy principles**.

- Drive internal **R&D** and foster a culture of continuous improvement in **sustainable technologies**.
- Demonstrate commitment to **ESG performance**, attracting **sustainable investments** and improving access to capital.
- Develop adaptive strategies to navigate **climate change impacts** and ensure business continuity.

Target Audience

1. Senior Executives and Board Members
2. Sustainability Directors and Managers
3. Energy Managers and Consultants
4. Heads of Operations and Supply Chain
5. Investment Professionals and Green Finance Specialists
6. Government Officials and Policymakers
7. Engineers and Technologists
8. Business Development Leaders

Course Outline

Module 1: The Global Energy Landscape and Climate Imperative

- Understanding the current global energy mix and its environmental impact.
- Drivers of energy transition: climate change, resource scarcity, geopolitical shifts.
- The urgency of **net-zero targets** and the Paris Agreement.
- **Case Study:** The European Green Deal and its economic implications.
- Examining the **energy trilemma**: security, affordability, and sustainability.

Module 2: Foundations of Renewable Energy Technologies

- In-depth overview of **solar PV** and **concentrated solar power** technologies.
- Wind energy: onshore, offshore, and emerging innovations.
- Geothermal energy: direct use, power generation, and enhanced systems.
- **Case Study:** Germany's *Energiewende* and the role of renewables.
- Hydropower, bioenergy, and emerging clean energy solutions.

Module 3: Decarbonization Pathways and Carbon Management

- Strategies for reducing **greenhouse gas emissions** across industries.
- **Carbon Capture, Utilization, and Storage (CCUS)** technologies.
- The role of **green hydrogen** and blue hydrogen in industrial decarbonization.
- **Case Study:** Norways's full-scale CCS project (Longship).
- Nature-based solutions for carbon sequestration.

Module 4: Sustainable Resource Management and the Circular Economy

- Principles of **circular economy**: reduce, reuse, recycle, regenerate.
- Strategies for **waste-to-energy** and waste minimization.
- **Water resource management** and efficiency in industrial processes.
- **Case Study:** Philips' transition to a circular business model for lighting.
- Material flow analysis and industrial symbiosis.

Module 5: Green Finance and Investment for Sustainable Projects

- Understanding **ESG (Environmental, Social, Governance)** criteria and reporting.

- Accessing **sustainable finance**: green bonds, impact investing, blended finance.
- Risk assessment and financial modeling for **renewable energy projects**.
- **Case Study:** The role of the World Bank and IFC in financing sustainable infrastructure.
- Valuation of environmental externalities and internalizing costs.

Module 6: Policy, Regulation, and Governance in Energy Transition

- Global and national **climate policies** and their impact on business.
- **Carbon pricing mechanisms**: carbon taxes and emissions trading schemes (ETS).
- Renewable energy mandates and incentive programs.
- **Case Study:** California's pioneering climate and energy policies.
- International cooperation and climate diplomacy (e.g., COPs).

Module 7: Energy Efficiency and Smart Grid Technologies

- Advanced **energy management systems** and industrial energy efficiency.
- Building automation and green building standards.
- **Smart grids**, demand-side management, and grid modernization.
- **Case Study:** Singapore's smart city initiatives and energy efficiency drives.
- Energy storage solutions: batteries, pumped hydro, and thermal storage.

Module 8: Sustainable Business Models and Innovation

- Developing **disruptive business models** for the green economy.
- Product-as-a-service models and extended producer responsibility.
- Fostering a culture of **green innovation** within organizations.
- **Case Study:** Interface's journey to sustainability and closed-loop manufacturing.
- Value chain transformation for sustainability.

Module 9: Digital Transformation for Sustainability

- Leveraging **Artificial Intelligence (AI)** and **Machine Learning** for energy optimization.
- **Internet of Things (IoT)** applications in smart buildings and grids.
- Big data analytics for environmental monitoring and resource tracking.
- **Case Study:** Siemens' use of digital twins for optimizing energy assets.
- Blockchain for carbon credit trading and supply chain transparency.

Module 10: Sustainable Supply Chain Management

- Mapping and assessing environmental and social risks in supply chains.
- Implementing **sustainable sourcing** and procurement practices.
- Logistics optimization and **green transportation**.
- **Case Study:** Patagonia's commitment to ethical and sustainable supply chains.
- Circular supply chain design and reverse logistics.

Module 11: Corporate Social Responsibility (CSR) and Stakeholder Engagement

- Integrating **CSR** into core business strategy.
- Effective **stakeholder engagement** in sustainability initiatives.
- Community relations and social license to operate.
- **Case Study:** Unilever's Sustainable Living Plan and its impact on brand and profits.
- Reporting and communicating sustainability performance.

Module 12: Climate Risk Management and Organizational Resilience

- Identifying and assessing **physical and transitional climate risks**.
- Developing **climate adaptation strategies** for business continuity.
- Integrating climate considerations into enterprise risk management.
- **Case Study:** How insurance companies are adapting to increasing climate risks.
- Building **organizational resilience** in a changing climate.

Module 13: Leading Energy Transition Projects

- Project management methodologies for complex sustainability initiatives.
- Risk management and mitigation in large-scale energy projects.
- Cross-functional team leadership and change management.
- **Case Study:** The development of a major offshore wind farm project.
- Performance measurement and impact assessment of green projects.

Module 14: Emerging Technologies and Future Trends

- Advances in **renewable energy storage** solutions.
- Small modular reactors (SMRs) and the future of nuclear power.
- Geothermal energy advancements and untapped potential.
- **Case Study:** Breakthroughs in next-generation battery technology.
- The role of biotechnology in sustainable resource production.

Module 15: Strategic Implementation and Action Planning

- Developing an integrated **energy transition roadmap** for your organization.
- Crafting compelling **sustainability business cases**.
- Measuring and reporting progress on **SDGs** and sustainability metrics.
- **Case Study:** BP's evolving strategy towards a low-carbon future.
- Peer coaching and personalized action plan development.

Training Methodology

This executive training course employs a highly interactive and practical methodology tailored for senior professionals. It will include:

- **Expert-Led Lectures and Discussions:** Engaging sessions delivered by renowned industry experts, academics, and policymakers.
- **Case Study Analysis:** In-depth examination of real-world corporate and national case studies, encouraging critical thinking and problem-solving.
- **Interactive Workshops:** Hands-on exercises and group activities to apply concepts and develop practical skills.
- **Peer-to-Peer Learning and Networking:** Opportunities for participants to share experiences, challenges, and best practices with a diverse group of senior leaders.
- **Guest Speaker Sessions:** Insights from leading practitioners and innovators in energy transition and sustainable resource management.
- **Strategic Action Planning:** Dedicated time for participants to develop tailored action plans for their respective organizations.
- **Q&A and Open Dialogue:** Fostering a collaborative learning environment where questions are encouraged and insights are shared.

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. Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	04 Dec 2026	Online	$2,000
23 Nov 2026	04 Dec 2026	Physical	$3,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$9,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$12,000

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