



*Training Course:  
Power Generation*

*6 - 10 December 2026*

*Cairo (Egypt)*

*Holiday Inn & Suites Cairo Maadi, an IHG Hotel*

## Training Course: Power Generation

Training Course code: EN6029 From: 6 - 10 December 2026 Venue: Cairo (Egypt) - Holiday Inn & Suites Cairo Maadi, an IHG Hotel Training Course Fees: 4410 € Euro

### Introduction

Power generation is a fundamental sector that supports industrial growth, economic development, and modern infrastructure. It involves the conversion of various energy sources—such as fossil fuels, nuclear energy, and renewables—into electrical power. Understanding generation technologies, system operations, and efficiency optimization is essential for reliable and sustainable energy production.

This program, designed by Global Horizon Training Center, equips participants with comprehensive knowledge of power generation systems, including conventional and modern technologies, operational practices, and performance optimization.

### Course Objectives

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

- Understand the principles of power generation and energy conversion
- Identify different types of power plants and their components
- Analyze thermodynamic cycles used in power generation
- Operate and monitor power generation systems
- Evaluate plant performance and efficiency
- Apply maintenance and troubleshooting techniques
- Integrate renewable energy into power systems
- Ensure safe and reliable plant operations

### Target Audience

This program is designed for:

- Mechanical and Electrical Engineers
- Power Plant Operators and Supervisors
- Maintenance and Reliability Engineers
- Energy and Utility Professionals
- Technical staff involved in power generation
- Professionals seeking foundational power generation knowledge

### Outline

#### Day 1: Fundamentals of Power Generation

- Overview of energy sources and power generation methods
- Basic thermodynamics and energy conversion
- Types of power plants thermal, hydro, nuclear, renewable
- Power plant components and systems
- Safety considerations

#### Day 2: Thermal Power Plants and Steam Systems

- Steam generation and boiler systems
- Rankine cycle operation
- Steam turbines and condensers
- Auxiliary systems
- Efficiency improvement techniques

#### Day 3: Gas Turbines and Combined Cycle Plants

- Gas turbine operation and components
- Brayton cycle fundamentals
- Combined cycle integration
- Heat Recovery Steam Generator HRSG
- Performance optimization

#### Day 4: Renewable Energy and Modern Technologies

- Solar, wind, and hydro power systems
- Energy storage technologies
- Smart grids and digital transformation
- Environmental impact and sustainability
- Integration challenges

#### Day 5: Operation, Maintenance, and Optimization

- Plant operation and control systems
- Preventive and predictive maintenance
- Troubleshooting techniques
- Performance monitoring and KPIs
- Case studies and real-world applications

## Registration form on the Training Course: Power Generation

**Training Course code:** EN6029 **From:** 6 - 10 December 2026 **Venue:** Cairo (Egypt) - Holiday Inn & Suites Cairo Maadi, an IHG Hotel **Training Course Fees:** 4410 € Euro

Complete & Mail or fax to Global Horizon Training Center (GHTC) at the address given below

### Delegate Information

Full Name (Mr / Ms / Dr / Eng): .....

Position: .....

Telephone / Mobile: .....

Personal E-Mail: .....

Official E-Mail: .....

### Company Information

Company Name: .....

Address: .....

City / Country: .....

### Person Responsible for Training and Development

Full Name (Mr / Ms / Dr / Eng): .....

Position: .....

Telephone / Mobile: .....

Personal E-Mail: .....

Official E-Mail: .....

### Payment Method

- Please find enclosed a cheque made payable to Global Horizon
- Please invoice me
- Please invoice my company

### Easy Ways To Register

Telephone:  
+201095004484 to  
provisionally reserve your  
place.

Fax your completed  
registration  
form to: +20233379764

E-mail to us :  
info@gh4t.com  
or training@gh4t.com

Complete & return the  
booking form with cheque  
to: Global Horizon  
3 Oudai street, Aldouki,  
Giza, Giza Governorate,  
Egypt.