

# **Power Generation: Turbines, Boilers & Renewable Systems**

Oil & Gas Engineering  
Toronto (Canada)  
15 - 19 Sep 2025

UK Traininig

# **PARTNER**



## Power Generation: Turbines, Boilers & Renewable Systems

**Ref:** 3299\_138151 **Date:** 15 - 19 Sep 2025 **Location:** Toronto (Canada) **Fees:** 4700 **Euro**

### Course Description

This comprehensive 5-day course provides in-depth knowledge of various power generation technologies, including traditional and renewable systems. Participants will explore turbines, boilers, co-generation, combined cycle, wind, and solar power, gaining practical insights into their operation, efficiency, and applications in the modern energy landscape.

### Learning Objectives

- Understand the principles and operation of steam turbines and boilers in power plants
- Analyze co-generation and combined cycle systems for improved efficiency
- Explore wind and solar power technologies and their integration into the grid
- Evaluate the environmental impact and efficiency of different power generation methods
- Apply best practices in power plant operation and maintenance

### Course Modules

#### Day 1: Introduction to Power Generation

- Overview of power generation technologies
- Thermodynamic cycles in power generation
- Energy conversion and efficiency concepts
- Environmental considerations in power generation

#### Day 2: Steam Turbines and Boilers

- Steam turbine types and components
- Boiler designs and steam generation processes
- Turbine and boiler efficiency optimization
- Operation and maintenance best practices

#### Day 3: Co-Generation and Combined Cycle Systems

- Principles of co-generation CHP systems
- Combined cycle power plant configurations
- Heat recovery steam generators HRSG
- Efficiency improvements in co-generation and combined cycle plants

#### Day 4: Wind Power Systems

UK Training  
**PARTNER**



- Wind turbine technology and components
- Wind farm design and grid integration
- Wind resource assessment and site selection
- Operation and maintenance of wind power systems

### **Day 5: Solar Power and Future Trends**

- Photovoltaic PV and concentrated solar power CSP technologies
- Solar power plant design and operation
- Energy storage solutions for renewable systems
- Emerging trends in power generation technology

### **Practical Wins for Participants**

- Ability to assess and optimize power plant efficiency
- Skills to integrate renewable energy sources into existing power systems
- Knowledge to implement co-generation and combined cycle technologies
- Capacity to make informed decisions on power generation investments

A graphic of a chessboard with several chess pieces. A large gold king piece is in the foreground, with a silver pawn and a silver knight behind it. In the background, there are concentric circles and the text 'UK Training PARTNER'.

## Blackbird training cities



Amman (Jordan)



Amsterdam (Netherlands)

Accra (Ghana)

Annecy (France)

Baku (Azerbaijan)

Bali (Indonesia)

Bangkok (Thailand)

Bangkok (Thailand)

Barcelona (Spain)

Batumi (Georgia)

Beijing (China)

Beirut (Lebanon)

Berlin (Germany)

Birmingham (UK)

Bordeaux (France)

Boston, Massachusetts (USA)

Brussels (Belgium)

Cairo (Egypt)

Cape Town (South Africa)

Casablanca (Morocco)

Cascais (Portugal)

Copenhagen (Denmark)

Doha (Qatar)

Dubai (UAE)

Düsseldorf (Germany)

UK Training  
**PARTNER**





## Blackbird Training Category



Human Resource



Audit & Quality Assurance



Finance, Accounting, Budgeting



Marketing, Sales, Customer Service



Secretary & Admin



Law and Contract Management



Project Management



IT & IT Engineering



Supply Chain & Logistics



Management & Leadership



Professional Skills



Oil & Gas Engineering



Health & Safety



Telecom Engineering



Hospital Management



Customs & Safety



Aviation



C-Suite Training



Agile and Refinement



## Blackbird training Clients



MANNAI Trading  
Company WLL,  
Qatar



Alumina Corporation  
Guinea



Booking.com  
Netherlands



Oxfam GB International  
Organization,  
Yemen



Capital Markets  
Authority,  
Kuwait



Waltersmith Petroman Oil Limited  
Nigeria



Qatar National Bank  
(QNB),  
Qatar



Qatar Foundation,  
Qatar



AFRICAN UNION ADVISORY  
BOARD ON CORRUPTION,  
Tanzania



KFAS  
Kuwait



Reserve Bank of  
Malawi,  
Malawi



Central Bank of Nigeria  
Nigeria



Ministry of Interior  
Kingdom of Saudi Arabia  
KSA



Mabruk Oil Company  
Libya



Saudi Electricity  
Company,  
KSA



BADAN PENGELOLA  
KEUANGAN Haji,  
Indonesia



NATO  
Italy



ENI CORPORATE  
UNIVERSITY,  
Italy



Gulf Bank  
Kuwait



General Organization for  
Social Insurance  
KSA



Defence Space Administration  
Nigeria



National Industries  
Group (Holding),  
Kuwait



Hamad Medical  
Corporation,  
Qatar



USAID  
Pakistan



STC Solutions,  
KSA



North Oil company,



EKO Electricity



Oman Broadband



UNITED NATIONS  
UN.



Authority for

UK Training  
**PARTNER**



**LONDON TRAINING PROVIDER**



[www.blackbird-training.com](http://www.blackbird-training.com)



[training@blackbird-training.com](mailto:training@blackbird-training.com)



+44 7480 775526 / +44 7401 177335