

#### **COURSE CRITERIA** UPON COMPLETION OF THIS COURSE, LEARNERS WILL BE ABLE TO:

- Explain the purpose of an EnMS and the business and environmental benefits of improving energy management performance;
- Explain the role of an auditor to plan, conduct, report and follow up an EnMS audit in accordance with ISO 19011 and ISO 17021-1 where appropriate;
- Plan, conduct, report and follow up an audit of an EnMS to establish conformity (or otherwise) with ISO 50001:2018 and in accordance with ISO 19011 (and ISO/IEC 17021-1 where appropriate).

Learners will need to demonstrate acceptable performance in all areas to complete the course successfully.

### **PRIOR KNOWLEDGE**

Before starting this course, learners are expected to have the following prior knowledge:

- Management systems
- The Plan, Do, Check, Act (PDCA) cycle;

- The core elements of a management system and the interrelationship between

Context, Leadership and Commitment, Energy Policy, Planning, Operation, Performance Evaluation, Management Review and Continual Improvement.

• ISO 50001: 2018

 An understanding of the requirements of ISO 50001 and the commonly used energy management terms and definitions, as given in ISO 50000, which may be gained by completing CQI and OIRCA Certified ISO 50001 Foundation (EnMS) Training course (or equivalent).

• Energy Management

The principles of fuel combustion, heat transfer and energy flow;

 The relevant sources of energy regulation, guidelines and standards;

 The typical methods and technologies for increasing efficiency;

Energy measurement units, sources, costs, tariffs and scheduling;

- Energy use data analysis methods;

 Energy performance indicators, monitoring and performance measurement;

 The impact of organisational processes and equipment on energy efficiency;

Electricity use: motors, drives, lighting, computers.

Energy related legislation and how legal compliance forms part of an EnMS.

# SGS ACADEMY

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COURSE DURATION: 2 days DELIVERY METHODOLOGY: Face to Face COURSE LANGUAGE: English ACCREDITATION: SGS

#### **COURSE DESCRIPTION**

The objective of this course is to provide learners with the knowledge and skills required to perform first-party audits of Energy Management Systems (EnMS) against ISO 50001:2018, in accordance with ISO 19011 and ISO 17021, as applicable.



#### COURSE CONTENT SESSION 1: INTRODUCTION TO ENERGY MANAGEMENT SYSTEMS

- The need for and benefits of an EnMS
- ISO 50001, the standard
- Compatibility with other standards
- The energy performance approach
- The organisation's internal and external issues
- Relevant interested parties and their relevant needs and expectations

## SESSION 2: ESTABLISHING AN ENERGY MANAGEMENT

- Application of the PDCA cycle
- Structure of ISO 50001:2018
- Key points of ISO 50001:2018
- The role of the Auditor

# SESSION 3: AUDIT EVIDENCE AND AUDIT TRAILS

- Relevant information
- Audit evidence

#### SESSION 4: AUDITS: DEFINITION, PRINCIPLES AND TYPES

- Audit definition
- Principles of auditing
- Types of audit

#### **SESSION 5: AUDIT PLANNING**

- Establishing audit objectives and scope
- Establishing the audit team
- Auditor roles and responsibilities

#### **SESSION 6: STAGE 1 AUDIT**

- Document review
- The audit plan
- Work documents

#### **SESSION 7: DEVELOPING THE CHECKLIST**

- The audit checklist
- Process review
- The "Turtle Diagram"

#### **SESSION 8: CONDUCTING THE AUDIT**

- Collecting and verifying information
- Opening meeting
- Roles and responsibilities of guides
- Conducting the audit
- Questioning techniques
- Controlling the audit
- Communication with the audit client and auditee

#### **SESSION 9: AUDIT REVIEW**

- Audit review meeting
- Audit findings
- Finding statements
- CARs
- Classification of CARs
- Opportunities for improvement

### **COURSE CERTIFICATION**

Learners who are in attendance for the complete course will be issued with a "Certificate of Attendance".



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