

Singapore Certified Energy Manager (SCEM) Associate Level

Module: Conduct Preliminary Energy Assessment of Building Facilities

The competency unit is conduct preliminary energy site assessment. On completion of this unit, learners will have the knowledge and skills to identify major building facilities in energy audit and measurement, carry out initial site assessment in client's building and prepare instrument checklists for actual site audit in client's building.

This competency unit provides an overview of the topics:

1. Identify major building facilities in energy audit and measurements.
 - Identify electricity distribution in a typical building
 - Identify types of air conditioning systems in use in energy building
 - Identify types of building's energy infrastructure
 - Identify components and its application of water-cooled air conditioning system in energy building
 - Identify operations and configuration of water distribution systems in relation to energy building
 - Identify different ventilation systems of building
 - Develop different types of energy system efficiency indexes to perform benchmarking exercises
2. Carry out initial site assessment in client's building
 - Clarify work plan with appropriate person before going to client's building to carry out pre-assessment
 - Study client's building blueprints to determine locations of energy systems
 - Produce simple schematic drawing according to as-built condition
 - Carry out pre-assessment at client's building to map out actual location of measuring points for analysis
 - Perform feasibility study to determine actual location of measurement
3. Perform instrument checklists for actual site audit in client's building
 - Confirm energy audit work plan with appropriate person to make preparation for actual site installation
 - Verify accuracy of technical specifications of client's building blueprints to ensure scope of energy audit work is achieved
 - Develop instrument checklists according to site installation requirements
 - Make preparation for audit resources to be made available for installation
 - Contact appropriate person in client's office for appointment

This module is inclusive of a practical session. Venue at ITE Simei.