



Australian Government

**Assessment Requirements for UEERE0010
Design energy management controls for
electrical installations in buildings**

Release: 1

Assessment Requirements for UEERE0010 Design energy management controls for electrical installations in buildings

Modification History

Release 1. This is the first release of this unit of competency in the UEE Electrotechnology Training Package.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions on at least one occasion and includes:

- determining the extent of the design
- setting up and conducting appropriate examinations and tests
- reporting evaluation including recommendation for improving energy efficiency
- dealing with unplanned events
- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including the use of risk control measures
- applying sustainable energy principles and practices
- designing energy management controls for electrical installations in buildings/structures
- preparing to design energy management controls for electrical installations in buildings/structures.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions and include knowledge of:

- building management control systems, including:
 - functions of a building management system (BMS) encompassing:
 - autonomous functions
 - input/output (I/O)
 - general I/O
 - installation management items
 - energy management
 - risk management
 - information processing
 - objectives
 - building running costs

- smoke control as per AS 1668.1 The use of ventilation and air conditioning in buildings Fire and smoke control in buildings
- BMS hardware encompassing:
 - system architecture
 - communication devices
 - substations
 - personal computers
 - interfaces with other systems
- I/O functions encompassing:
 - digital I/O
 - digital output with status feedback
 - analogue I/O
 - sensors
 - alarms
- energy management encompassing:
 - night cycle
 - optimum stop/start
 - time and event programs
 - night purge
 - outside air percentage control
 - enthalpy control
 - power demand control
 - duty cycle
 - presence detection
 - lighting control
- information processing functions encompassing:
 - computer systems
 - central system management
 - programs
 - system configuration and security
 - operator - machine interface
 - data points
- risk and maintenance management encompassing:
 - system files
 - fire and intruder control
 - access control
- relevant job safety assessments or risk mitigation processes
- relevant manufacturer specifications
- relevant WHS/OHS legislated requirements
- relevant workplace documentation

- relevant workplace policies and procedures.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in suitable workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated suitable workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, facilities and equipment currently used in industry
- resources that reflect current industry practices in relation to designing energy management controls for electrical installations in buildings
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

Links

Companion Volume implementation guides are found in VETNet - -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>