Australian Government

UEERE0010 Design energy management controls for electrical installations in buildings

Release: 1

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Modification History

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

Application

This unit involves the skills and knowledge required to design energy management controls for electrical installations in new buildings/structures.

It includes designing and developing energy management control methods to reduce energy use in new buildings/structures, and documenting strategies to effectively reduce energy use in the completed installation.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

UEERE0013 Develop strategies to address environmental and sustainability issues in the energy sector

Competency Field

Renewable Energy

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1 Identify energy management techniques for electrical installations in buildings	**1.1** Work health and safety (WHS)/occupational health and safety (OHS) processes and workplace procedures for a given work area are identified, obtained and applied

	1.2	Hazards are identified, WHS/OHS risks assessed, and control measures and workplace procedures are implemented in preparation for work
	1.3	Scope of the energy management electrical design is determined from specifications of building and its services, plant and machinery and in consultation with relevant person/s
	1.4	Advice is sought from allied trade areas and component suppliers on required energy usage and system design in accordance with manufacturer specifications on energy usage for electrical control system
	1.5	Advice is sought from work supervisor to ensure work is coordinated effectively with relevant person/s
	1.6	Tools, testing devices and materials needed to carry out work are obtained and checked for correct operation and safety
2 Design energy management controls for electrical installations	**2.1**	WHS/OHS risk control measures and workplace procedures for carrying out work are followed
	2.2	Inspection, tests and measurements are carried out in accordance with WHS/OHS requirements and workplace procedures
	2.3	Energy use of building services, plant and machinery is obtained and applied to the energy management design control process
	2.4	Energy evaluation tests are set up in accordance with inspection and test methods and workplace procedures
	2.5	Strategies to reduce electrical system energy use without compromising occupancy standards are developed in accordance with energy management techniques and evaluation test results
	2.6	Unexpected situations are dealt with safely and effectively in accordance with workplace procedures and approval relevant person
	2.7	Design and electrical installation evaluation is carried out without unnecessary damage to systems circuits, the surrounding environment or services using sustainable energy practices

3	**Document energy management strategies to effectively reduce energy use in building**	**3.1** WHS/OHS work completion risk control measures and workplace procedures are followed
		3.2 Worksite is cleaned and made safe in accordance with workplace procedures
		3.3 Results of energy management design controls, recommended electrical installation strategies and their criterion for energy reduction are documented in accordance with workplace procedures
		3.4 Plans, wiring diagrams and specifications are completed and forwarded to relevant person/s

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the UEE Electrotechnology Training Package Companion Volume Implementation Guide.

Designing energy management controls for electrical installations in buildings must include at least the following:

- two building types

Unit Mapping Information

This unit replaces and is equivalent to UEENEEK146A Design energy management controls for electrical installations in buildings.

Links

Companion Volume implementation guides are found in VETNet - - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6