



**Australian Government**

# **UEERE0059 Design energy management controls for electrical installations in buildings**

**Release: 1**

# **UEERE0059 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.

This unit replaces and is not equivalent to UEERE0010 Design energy management controls for electrical installations in buildings. Modifications include:

- Prerequisite changed
- Significant amendments made to Elements and Performance Criteria
- Range of conditions updated
- Updates to performance and knowledge evidence requirements.

## **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.

This unit is appropriate for Licenced Electricians or Electrical Engineers with responsibility for designing energy management controls for electrical installations in buildings.

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

## **Pre-requisite Unit**

UEEIC0013 Develop, enter and verify discrete control programs for programmable controllers

## **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) requirements and workplace procedures are identified and applied

**1.2** 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

**1.3** People or organisations involved in the design and installation are identified and roles clarified

**1.4** Industry regulations, legal obligations and job requirements are identified and applied to work in accordance with workplace procedures

#### **2 Design energy management controls for electrical installations**

**2.1** Energy management controls' performance standards and compliance methods are applied to the design development

**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** Safety, functional and budgetary considerations are incorporated in design

**2.7** Results of energy management design controls, recommended electrical installation strategies and their criterion for energy reduction are documented in

accordance with workplace procedures

- 2.8** 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 different building types.

## Unit Mapping Information

This unit replaces and is not equivalent to UEERE0010 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>