



Australian Government

UEERE0012 Develop effective engineering strategies for energy reduction 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 develop effective engineering strategies for energy reduction in buildings.

It includes developing and documenting engineering strategies/methods to effectively reduce energy use in buildings. It also includes documenting and reporting engineering strategies for energy reduction in buildings.

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

Elements describe the essential outcomes.

1 Identify engineering energy strategies for a building

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

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

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| | 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 engineering evaluation is determined from specifications of building, services, plant and machinery and in consultation with relevant person/s |
| | 1.4 | Advice is sought from work supervisor to ensure work is coordinated effectively with relevant person/s |
| | 1.5 | Tools, testing devices and materials needed to carry out work are obtained and checked for correct operation and safety |
| 2 | | Develop engineering strategies for energy reduction in a building |
| | 2.1 | WHS/OHS risk control measures and workplace procedures for carrying out the 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 engineering evaluation process |
| | 2.4 | Energy evaluation tests are set up in accordance with inspection and test methods and workplace procedures |
| | 2.5 | Engineering strategies to reduce 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 the approval of relevant person/s |
| | 2.7 | Engineering evaluation is carried out without damage to systems, circuits, the surrounding environment or services using sustainable energy practices |
| 3 | | Document and report engineering strategies for energy reduction 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 use evaluation and recommended engineering strategies and their criterion for energy reduction are documented in accordance with workplace procedures
- 3.4 Engineering energy reduction report is 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.

Developing engineering strategies for effective energy reduction must include at least the following:

- two buildings

Unit Mapping Information

This unit replaces and is equivalent to UEENEEK151A Develop effective engineering strategies for energy reduction in buildings.

Links

Companion Volume implementation guides are found in VETNet - -

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