



Australian Government

UEERA0039 Evaluate and report on building services energy management systems

Release: 1

UEERA0039 Evaluate and report on building services energy management systems

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 evaluate and report on building services energy management systems, plant and machinery.

It includes working safely, setting up and conducting evaluation measurements, evaluating energy use from measured parameters, and reporting results, including recommending any resulting corrective actions.

The skills and knowledge described in this unit require a licence or permit to practice in the workplace where work is carried out on electrical installations which are designed to operate at voltages greater than 50 volt (V) alternating current (a.c.) or 120 V direct current (d.c.).

Competency development activities in this unit are subject to regulations directly related to licensing. Where a licence or permit to practice is not held, skills and knowledge described in this unit require a relevant contract of training, such as an Australian Apprenticeship.

Additional and/or other conditions may apply in some jurisdictions subject to regulations related to electrical work. Practice in the workplace and during training is also subject to work health and safety (WHS)/occupational health and safety (OHS) regulations.

Permits may also be required for some work environments, such as confined spaces, working aloft, near live electrical apparatus and site rehabilitation.

Pre-requisite Unit

UEERA0094 Verify functionality and compliance of refrigeration and air conditioning installations

UEECD0007 Apply work health and safety regulations, codes and practices in the workplace

UEECD0019 Fabricate, assemble and dismantle utilities industry components

UEECD0020 Fix and secure electrotechnology equipment

UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications

UEECD0016 Document and apply measures to control WHS risks associated with electrotechnology work

UEERA0059 Prepare and connect refrigerant tubing and fittings

UEERA0036 Establish the basic operating conditions of vapour compression systems

UEERA0035 Establish the basic operating conditions of air conditioning systems

UEERA0050 Install refrigerant pipe work, flow controls and accessories

UEERA0081 Select refrigerant piping, accessories and associated controls

UEERA0031 Diagnose and rectify faults in air conditioning and refrigeration control systems

UEERA0092 Solve problems in low voltage refrigeration and air conditioning circuits

UEERL0005 Locate and rectify faults in low voltage (LV) electrical equipment using set procedures

UEERL0004 Disconnect - reconnect electrical equipment connected to low voltage (LV) installation wiring

UEERL0001 Attach cords and plugs to electrical equipment for connection to a single phase 230 Volt supply

UEERL0002 Attach cords, cables and plugs to electrical equipment for connection to 1000 V a.c. or 1500 V d.c.

Competency Field

Refrigeration and air-conditioning

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to evaluate and report on energy management

PERFORMANCE CRITERIA

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

- 1.1 WHS/OHS procedures are obtained and implemented in accordance with workplace procedures
- 1.2 WHS/OHS risk control measures and procedures for work are followed
- 1.3 The extent of evaluation is determined from building services, plant and machinery specifications and discussed with relevant person/s
- 1.4 Advice is sought from work supervisor to ensure work is coordinated effectively with others

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| | 1.5 | Tools, testing devices and materials required for the work are obtained and checked for correct operation and safety in accordance with workplace procedures |
| 2 Evaluate energy management | 2.1 | WHS/OHS risk control measures and workplace procedures for carrying out the work are followed |
| | 2.2 | Need to test or measure live work is determined in accordance with workplace procedures and WHS/OHS requirements |
| | 2.3 | Energy management of building services, plant and machinery is applied to the evaluation process |
| | 2.4 | Energy evaluation tests for each parameter under scrutiny are conducted in accordance with workplace procedures and test methods |
| | 2.5 | Energy evaluation tests are conducted methodically and results/comments systematically noted |
| | 2.6 | Unplanned situations are dealt with safely with the approval of authorised person/s |
| | 2.7 | Evaluation is conducted without damage to systems, circuits, the surrounding environment and/or services using sustainable energy practices |
| 3 Report on energy management | 3.1 | WHS/OHS work completion risk control measures and procedures are followed |
| | 3.2 | Worksite is cleaned and made safe in accordance with workplace procedures |
| | 3.3 | Results of energy management evaluation, including recommendations and justification for improvements, are documented |
| | 3.4 | Energy evaluation report is forwarded to appropriate person/s in accordance with workplace procedures |

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.

Evaluating and reporting on building services energy management systems must include at least the following

- two different types of building services, plant and machinery

Unit Mapping Information

This unit replaces and is equivalent to UEENEEJ136A Evaluate and report on building services energy management systems.

Links

Companion Volume implementation guides are found in VETNet - -

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