



Australian Government

UEERA0041 Evaluate new and alternative technologies applicable to electrotechnology applications

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 evaluate new and alternative technologies applicable to electrotechnology applications.

It includes working safely and comparing manufacturer's technical data for alternative or new technologies with specifications for a proposed project.

It also includes conducting evaluation tests, evaluating systems/components from technical data and/or measured parameters, and reporting findings for use in design work.

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

Pre-requisite Unit

Not applicable

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 alternative and new technologies

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) 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 proposed project specifications and discussions with relevant person/s
 - 1.4 Advice is sought from work supervisor to ensure work is coordinated effectively with others
 - 1.5 Tools, testing devices and manufacturer technical data required for the work are obtained and checked for correct operation and safety in accordance with workplace procedures
- 2 **Evaluate alternative and new technologies**
 - 2.1 WHS/OHS risk control measures and workplace procedures for carrying out the work are followed
 - 2.2 Electrotechnology disciplines applicable to the alternative/new technology being considered are applied to the evaluation process
 - 2.3 Manufacturer's technical data for alternative/new technologies is compared with proposed project specifications, budget and regulations
 - 2.4 Evaluation tests for each component under scrutiny are conducted in accordance with WHS/OHS requirements and established test methods
 - 2.5 New and alternative technologies are evaluated 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 use of alternative and new technologies**
 - 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 the evaluation, including recommendations and justifications for adoption/rejection of the

alternative and new technologies, are documented for use in design work

- 3.4** Report is forwarded to appropriate person/s for endorsement 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 alternative and new technologies must include at least two different proposed projects in any of the following electrotechnology disciplines:

- automated systems
- computer systems
- electrical
- electronics
- industrial electronics and control
- refrigeration and air conditioning
- renewable energy (RE)

Unit Mapping Information

This unit replaces and is equivalent to UEENEEJ150A Evaluate new and alternative technologies applicable to electrotechnology applications.

Links

Companion Volume implementation guides are found in VETNet - -

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