



Australian Government

UEERE0031 Design stand-alone renewable energy (RE) systems

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 stand-alone renewable energy (RE) systems and its installation.

It includes determining and developing stand-alone RE systems design, following design briefs, documenting design calculations and criteria, and obtaining design approval for stand-alone RE system.

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

Pre-requisite Unit

UEERE0046 Solve problems in stand-alone renewable energy (RE) systems

Competency Field

Renewable Energy

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Determine stand-alone RE system

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
- 1.2 Scope of the stand-alone RE system and electrical installation is determined from design brief

- 1.3 Safety and regulatory requirements to which the electrical installation must comply are identified, obtained and applied
 - 1.4 Design development work is planned to meet scheduled timelines in consultation with relevant person/s involved in the stand-alone RE system installation or associated work
- 2 Develop stand-alone RE system design**
 - 2.1 Stand-alone RE system performance requirements and compliance methods are applied to the design
 - 2.2 Alternative stand-alone RE system designs are considered in accordance with the design brief
 - 2.3 Safety, functionality and budgetary considerations are incorporated in the stand-alone RE design
 - 2.4 Stand-alone RE system design is drafted and checked for compliance with the design brief and regulatory requirements
 - 2.5 Stand-alone RE system design is documented for submission to relevant person/s for acceptance and approval
 - 2.6 Unplanned situations are dealt with safely and effectively in accordance with workplace procedures
- 3 Obtain design approval for stand-alone RE system**
 - 3.1 Stand-alone RE system design is presented for approval and any issues clarified with client representative and/or relevant person/s
 - 3.2 Requests for alterations to the design are negotiated with relevant person/s within the constraints of workplace policies
 - 3.3 Final design is documented and approval obtained from relevant person/s
 - 3.4 Quality of work is monitored in accordance with relevant performance agreement and/or workplace procedures or industry standards

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 stand-alone RE systems must include at least the following:

- two different stand-alone RE systems

Unit Mapping Information

This unit replaces and is equivalent to UEENEEK139A Design stand-alone renewable energy (RE) systems.

Links

Companion Volume implementation guides are found in VETNet --

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