



Australian Government

Assessment Requirements for UEERE0067 Develop engineering solutions to renewable energy (RE) problems

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.

This unit replaces and is not equivalent to UEERE0033 Develop engineering solutions to renewable energy (RE) problems. Modifications include:

- Prerequisites changed
- Significant amendments made to Elements and Performance Criteria
- Range of conditions updated
- Significant amendments to Performance and Knowledge Evidence and CVIG content developed.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions on at least two occasions and include:

- determining the nature and scope of renewable energy (RE) problem
- developing and implementing a project plan appropriate for the nature and scope of the RE problem
- identifying and applying technical and practical engineering methods, techniques, tools and resources to development of solution
- identifying and consulting personnel and stakeholders required to support solution development and implementation
- developing and testing effective engineering solution/s and modifying as/if required
- selecting, documenting and implementing engineering solution/s.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions and include knowledge of (refer UEE Training Package Companion Volume Implementation Guide for more detail about each item):

- energy resources
- energy and humanity
- basic energy concepts
- monitoring, measurement and verification of data management and cyber security
- energy application technologies

- electrical application technologies
- energy transfer in closed and open systems
- AC v DC power generation/transmission
- Gases
- heat engines and their performance
- electrical power distribution systems operation
- protection and relaying
- distributed generation issues
- RE supply issues
- factors affecting the uptake of distributed generation
- asset management
- life-cycle management
- impact of climate change on electrical infrastructure
- benefits, issues and impacts of options and solutions to problems
- relevant manufacturer specifications
- jurisdictional Electrical Licencing requirements relevant to RE
- technical and non-technical jurisdictional requirements related to grid connection
- relevant workplace documentation, policies and procedures
- relevant WHS/OHS requirements including:
 - risk assessment and mitigation
 - legislated requirements
 - design and implementation of site-specific guidelines for access to apparatus
 - requirements for working with HV versus LV
 - safe systems of work
- engineering methods, tools and techniques relevant to solving RE problems.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in suitable workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated suitable workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or simulations
- relevant and appropriate materials, tools, facilities and equipment currently used in industry

- resources that reflect current industry practices in relation to developing engineering solutions to RE problems
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

Links

Companion Volume Implementation Guides are found in VETNet -

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