



Australian Government

Assessment Requirements for UEERE0079 Install off-grid power conversion equipment to electrical installation

Release: 1

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Modification History

Release 1. This is the first release of this unit of competency in the Electrotechnology Training Package.

Performance Evidence

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

- installing off-grid systems to electrical installation, including:
 - applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including using risk control measures
 - verifying design and resolving any issues with designer
 - coordinating work with relevant person/s
 - determining and applying live testing, measurement and isolation requirements
 - reading and interpreting drawings/diagrams related to apparatus locations and circuit connections
 - applying appropriate installation methods for off-grid systems
 - testing system operation and verifying compliance with standards and job specifications
 - connecting and commissioning in accordance with industry standards and regulations
 - completing necessary documentation, including handing over system operational documents to the customer.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- system configurations including multiple energy sources including:
 - systems with d.c. loads only
 - systems with d.c. and ac. loads
 - systems with a.c. loads
 - renewable energy only systems including PV, wind and micro-hydro
 - hybrid systems comprising one or more RE system with fuel generator
- electrical installation requirements including:
 - methods used in wiring and connecting the following in accordance with relevant Australian Standards and manufacturers requirements:

- multiple PCEs and associated control equipment
- PCEs with generating sets
- PCEs and fuel generators directly with loads or with switchboards or distributions board
- considerations involved in choosing the cable routes
- selection and locating the associated protection and isolating devices in accordance with relevant Australian standards and industry guidelines
- wiring diagrams for the off-grid RE system showing the general circuit layout and protection between the various system components
- system control installation including:
 - control and monitoring equipment
 - associated cabling
 - control programming
- system testing and commissioning
- system documentation
- relevant manufacturer specifications
- relevant safe work method statements (SWMS)/job safety assessments or risk mitigation processes
- relevant workplace documentation, policies and procedures.

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 workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated 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 other simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment (PPE) currently used in industry
- resources that reflect current industry practices in relation to installing and setting up off-grid systems
- 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>