



Australian Government

**Assessment Requirements for UEERE0080
Install photovoltaic power conversion
equipment to grid**

Release: 1

Assessment Requirements for UEERE0080 Install photovoltaic power conversion equipment to grid

Modification History

Release 1. This is the first release of this unit of competency in the UEE 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:

- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including using risk control measures
- verifying design, drawings and documentation and resolving any issues with designer
- installing grid-connected system safely
- testing and commissioning in accordance with industry standards and regulations
- completing documentation according to regulatory and industry standards.

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:

- power conversion equipment (PCE), including:
 - types of PCEs used in grid-connected systems
 - the basic AC specifications and functions of an PCE
- PCE operation, including:
 - connection of a grid connected PCE and measurement of the PCE parameters for various loads
 - Industry Standards and regulation relevant to PCEs
- PV grid-connected system operation, including:
 - operation of grid interactive PV systems, including synchronisation, safety feature, power flow control, passive and active anti-islanding, secondary protection and metered energy for systems
 - schematic diagrams of common grid-connected PCE circuit configurations, including metering arrangements, isolation and connection with respect to residual current devices (RCDs) in accordance with relevant industry standards
- installation of grid-connected PCEs, including:
 - major installation requirements for all system components which will ensure correct operation, long life, safety and ease of maintenance consistent with relevant industry

- standards and WHS/OHS guidelines
- typical installation configurations for grid connection of energy systems via PCEs
- the function and operation of a grid protection device as specified by relevant industry standards
- labelling and signage requirements for switchboards supplied with power from grid connected PCEs, as set out in the relevant industry standards
- system commissioning and maintenance, including:
 - the isolation procedures required for grid-connected PCEs
 - relevant commissioning procedures, including start-up and shutdown procedures for grid-connected PCE systems in accordance with relevant industry standards
 - testing a grid-connected PCE system for correct operation
 - performing commissioning work on a PV power system in accordance with relevant industry standards.
- relevant workplace documentation, policies, procedures and standards.

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
- 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>