



Australian Government

UEERE0080 Install photovoltaic power conversion equipment to grid

Release: 1

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.

Application

This unit involves the skills and knowledge required to install and commission photovoltaic (PV) power conversion equipment (PCE) to grid.

It includes working safely to industry installation standards, installing components in accordance with design, placing and securing system components accurately, making required circuit connections, testing and commissioning the installation and completing the necessary installation documentation.

The skills and knowledge described in this unit require a licence or permit to practice in the workplace where work is carried out on electrical installations, which are designed to operate at voltages greater than 50 volt (V) alternating current (a.c.) or 120 V direct current (d.c.).

Competency development activities in this unit are subject to regulations directly related to licensing. Where a licence or permit to practice is not held, a relevant contract of training, such as an Australian Apprenticeship, is required.

Additional and/or other conditions may apply in some jurisdictions subject to regulations related to electrical work. Practice in the workplace and during training is also subject to work health and safety (WHS)/occupational health and safety (OHS) regulations.

Note: Those holding an Unrestricted Electrician's Licence or equivalent issued in an Australian state or territory meet the prerequisite requirements of UEEEL0012 Install low voltage wiring, appliances, switchgear and associated accessories. All other prerequisite requirements must be met.

Pre-requisite Unit

UEEEL0012 Install low voltage wiring, appliances, switchgear and associated accessories

UEERE0054 Conduct site survey for grid-connected photovoltaic and battery storage systems

Competency Field

Renewable Energy

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Plan to install photovoltaic power conversion equipment to grid

2 Install grid-connected systems

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1** Nature of the installation is verified from design documentation and any design concerns identified are referred to designer
- 1.2** WHS/OHS processes and procedures for work are identified and applied in accordance with workplace procedures
- 1.3** Work is planned in consultation with the customer and others impacted by the work and sequenced appropriately
- 1.4** Location of components is verified within the constraints of the building structure, design and industry standards and regulations
- 1.5** Material, tools, equipment and measuring devices required for the installation are obtained in accordance with design requirements
- 1.6** Live testing, measurement and isolation requirements determined and applied in accordance with WHS/OHS requirements and workplace procedures
- 2.1** Circuits/machines/plant are isolated in accordance with WHS/OHS requirements and workplace procedures
- 2.2** System installed in compliance with industry standards, regulations and job/manufacture specifications, and with sufficient access to enable terminations, adjustment and maintenance
- 2.3** Wiring is terminated at components and associated equipment in accordance with manufacturer specifications and functional and regulatory requirements

- 2.4 Quality checks of installed apparatus are conducted in accordance with workplace procedures
- 2.5 Testing and commissioning of the system is conducted in accordance with design documentation, regulations, relevant industry standards and manufacturer specifications
- 2.6 Worksite is cleaned and made safe in accordance with workplace procedures
- 2.7 'As-installed' system and associated equipment are documented, manuals produced, and system is handed over to required person/s as per legislation, regulations, industry standards and job requirements

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.

Installation of PV PCE must include:

- installing, configuring and commissioning at least two different LV grid-connected PCEs to the grid.

Unit Mapping Information

This is a new unit.

Links

Companion Volume Implementation Guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>