



Australian Government

UEERE4001 Install, maintain and fault find battery storage systems for grid-connected photovoltaic systems

Release: 1

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Modification History

Release 1. New unit of competency.

Application

This unit involves the skills and knowledge required to safely and effectively install, maintain and fault find battery storage systems for grid-connected photovoltaic (PV) systems.

A person competent in this unit will hold an unrestricted electrical licence issued in an Australian State or Territory and be able to install, maintain and fault find battery storage systems for grid-connected PV in accordance to relevant industry standards and regulations.

This unit is subject to the following requirements:

- Legislation, regulations, relevant industry standards and codes of practice for electrical work including specific work health and safety (WHS)/occupational health and safety (OHS) legislation and regulatory requirements
- Electrical licencing requirements – unrestricted electrical work
- Legislation, regulations, relevant industry standards and codes of practice for renewable energy.

There may be variations in these requirements across jurisdictions.

Pre-requisite Unit

UEENEEK148A Install, configure and commission LV grid connected photovoltaic power systems

Competency Field

Renewable and Sustainable Energy

Unit Sector

Electrotechnology

Elements and Performance Criteria

Elements describe the essential Performance criteria describe the performance needed to

outcomes.

demonstrate achievement of the element.

1 Plan for the installation, maintenance or fault finding of battery storage systems for grid-connected PV systems

- 1.1 Installation design requirements, components and how they interconnect with the different system configurations are identified
- 1.2 Hazards associated with battery storage systems for grid-connected PV systems are identified and the risk control measures are listed in safe work method statements/job safety analysis
- 1.3 Designer recommendations, relevant industry standards, regulations and manufacturer specifications are identified and applied to planning the system installation, maintenance or fault finding
- 1.4 Tools and safety equipment are selected and checked for safe performance of required tasks
- 1.5 Maintenance is planned in accordance with system designer's requirements
- 1.6 PV system and reported faults are identified and fault finding techniques applied

2 Carry out the installation, maintenance and fault finding of battery storage systems for grid-connected PV systems

- 2.1 Job safety analysis is undertaken or safe work method statement is prepared and used to inform work processes in accordance with regulations and workplace procedures
- 2.2 Battery storage components are installed in accordance with system design documentation, relevant industry standards, regulations and manufacturer specifications
- 2.3 Inverters are installed in accordance with system design documentation, relevant industry standards, regulations and manufacturer specifications
- 2.4 System charge controllers are installed in accordance with system design documentation, relevant industry standards, regulations and manufacturer specifications
- 2.5 Storage system equipment including, cables, protection and isolation equipment, and signs are installed in accordance with system design documentation, relevant industry standards,

regulations and manufacturer specifications

- 2.6 System charge controllers and inverters are programmed in accordance with design documentation, relevant industry standards, regulations and manufacturer specifications
- 2.7 Required modification to the electrical installation is carried out in accordance with design documentation, regulations and relevant industry standards
- 2.8 Maintenance checklists are used to identify items needing servicing or replacement
- 2.9 Required maintenance is performed by servicing or replacing items
- 2.10 Fault finding techniques are applied to correctly diagnose and rectify system faults
- 2.11 Testing, commissioning or reinstatement of the system is conducted in accordance with design documentation, regulations, relevant industry standards and manufacturer specifications

3 Document the installation, maintenance or fault finding of battery storage systems for grid-connected PV systems

- 3.1 Testing, commissioning and required compliance documents are completed
- 3.2 As installed, electrical system drawings and equipment location plans are produced
- 3.3 Client system documentation, from designer, is completed
- 3.4 Client is briefed on safe and correct system operation and recommended maintenance
- 3.5 Maintenance checklists are finalised correctly and added to client system documentation
- 3.6 Fault report/record is completed and added to client system documentation

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 can be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This is a new unit – no equivalent unit

Links

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