Australian Government

UEERE0076 Install and maintain wind energy systems to power conversion equipment

Release: 1

UEERE0076 Install and maintain wind energy systems to power conversion equipment

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:

- UEERE0036 Install small wind energy conversion systems rated up to 10 kW for ELV stand-alone applications, and
- UEERE0038 Install, configure and commission LV wind energy conversion systems rated up to 10 kW

Modifications include:

- Unit title changed
- Unit application updated
- Prerequisites changed
- Significant amendments made to Elements and Performance Criteria
- Range of conditions updated
- Significant amendments to Performance and Knowledge Evidence.

Application

This unit involves the skills and knowledge required to install and maintain wind energy systems to power conversion equipment.

It includes preparing, installing and maintaining wind energy systems as well as maintenance and reporting activities.

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.

Pre-requisite Unit

UEEEL0039 Design, install and verify compliance and functionality of general electrical installations

UEERE0055 Conduct site survey for off-grid photovoltaic/generating set systems

UEERE0078 Install battery storage to power conversion equipment

UEERE0079 Install off-grid power conversion equipment to electrical installation

Competency Field

Renewable Energy

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1 Prepare to work on wind energy systems	**1.1** WHS/OHS processes and procedures for relevant work area are identified and applied in accordance with workplace procedures
	1.2 WHS/OHS hazards are identified, risks assessed, reported to relevant person/s and workplace procedures for risk control measures applied in preparation for work
	1.3 Nature, scope and location of the work are determined from documentation or relevant person/s
	1.4 Work is planned in consultation with the customer and others impacted by the work and sequenced appropriately
	1.5 Engagement and scheduling of contractors and other experts required for completion of work are arranged, and roles, responsibilities and levels of authority confirmed
	1.6 Materials, components, tools, equipment and testing devices required are obtained in accordance with workplace procedures and checked for correct operation and safety
	1.7 Live testing, measurement and isolation requirements determined in accordance with WHS/OHS requirements

		and workplace procedures
2	**Install wind energy systems**	**2.1** Nature of the installation is verified from design documentation and any design concerns identified referred to designer
		2.2 Transport of equipment to the site is confirmed in accordance with workplace procedures
		2.3 Installation/construction work of other parties is confirmed as compliant with industry standards, regulations and manufacturer specifications prior to commencing each stage of the project
		2.4 Circuits/machines/plant are isolated in accordance with WHS/OHS requirements and workplace procedures
		2.5 System components are installed in compliance with industry standards, regulations and job/manufacturer specifications, and with sufficient access to enable terminations, adjustment and maintenance
		2.6 Wiring is terminated at components and associated equipment in accordance with manufacturer specifications and functional and regulatory requirements
		2.7 Quality checks of installed apparatus are conducted in accordance with workplace procedures
		2.8 System installation is completed in accordance with design, industry standards, regulations and manufacturer specification
		2.9 Testing and commissioning of the system is conducted in accordance with design documentation, regulations, relevant industry standards and manufacturer specifications
		2.10 Worksite is cleaned and made safe in accordance with workplace procedures
		2.11 ‘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
3	**Maintain wind energy systems**	**3.1** Scope and nature of the maintenance is verified from relevant documentation and relevant person/s

3.2 Live testing, measurement and isolation requirements determined and applied in accordance with WHS/OHS requirements and workplace procedures

3.3 System is dismantled in accordance with manufacturer guides and instructions from relevant person/s

3.4 Component parts are tagged during dismantling to ensure correct and efficient reassembly and stored to protect against loss or damage

3.5 System is reassembled in required sequence with all parts placed, secured and connected in accordance with manufacturer guides or industry practice

3.6 Repairs are completed in accordance with industry standards, regulations and manufacturer specification

3.7 Testing, commissioning and reinstatement of the system is conducted in accordance with design documentation, regulations, relevant industry standards and manufacturer specifications

3.8 Worksite is cleaned and made safe in accordance with workplace procedures

3.9 'As-installed' system and associated equipment are documented, manuals updated, 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 and maintenance of wind energy systems must include:	• verification of design • installing power conversion equipment/electrics for a wind turbine.

Unit Mapping Information

This unit replaces and is not equivalent to UEERE0036 Install small wind energy conversion systems rated up to 10 kW for ELV stand-alone applications and UEERE0038 Install, configure and commission LV wind energy conversion systems rated up to 10 kW

Links

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