



Australian Government

UEERE0047 Solve problems in wind energy conversion systems (WECS) rated up to 10 kW

Release: 1

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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 solve problems in wind energy conversion systems (WECS) rated up to 10 kilowatt (kW).

It includes preparing to work on WECS, solving problems in WECS, completing work and documenting problem-solving activities.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

UEECD0007 Apply work health and safety regulations, codes and practices in the workplace

UEEEL0019 Solve problems in direct current (d.c.) machines

UEEEL0021 Solve problems in electromagnetic devices
and

UEECD0043 Solve problems in direct current circuits
or

UEECD0044 Solve problems in multiple path circuits

UEECD0046 Solve problems in single path circuits

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 WECS

- 1.1** Work health and safety (WHS)/occupational health and safety (OHS) processes and procedures for relevant work area are identified and applied in accordance with workplace procedures
- 1.2** Risk control measures are applied in accordance with workplace procedures prior to commencing work
- 1.3** Nature of apparatus problem is identified from documentation or from relevant person/s to determine the scope of work
- 1.4** Instructions for coordinating work with others is obtained from relevant person/s and applied
- 1.5** Materials required for the work are identified and accessed in accordance with workplace procedures
- 1.6** Tools, equipment and testing devices required to carry out work are obtained and checked for correct operation and safety

2 Solve problem in WECS

- 2.1** Workplace risk control measures and procedures are applied
- 2.2** Need to test or measure live electrical work is determined in accordance with WHS/OHS requirements and conducted in accordance with workplace procedures
- 2.3** Circuits are isolated in accordance with WHS/OHS requirements and workplace procedures
- 2.4** WECS problems are solved using measured and calculated values of apparatus operating parameters and in accordance with workplace procedures
- 2.5** Problems are solved without damage to apparatus, circuits, the surrounding environment and services using sustainable energy practices

3 Complete work and document problem-solving activities

- 3.1** Workplace risk control measures and procedures are applied
- 3.2** Worksite is cleaned and made safe in accordance with

workplace procedures

- 3.3 Justification for solutions used to solve WECS problems is documented
- 3.4 Work completion is documented and relevant person/s notified in accordance with workplace procedures

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.

Problem solving in WECS must include the following:

- installation, fault-finding, maintenance or development work functions on at least three of the following:
 - determining the operating parameters of an existing apparatus
 - identifying and locating electrical faults
 - identifying and locating mechanical faults

Unit Mapping Information

This unit replaces and is equivalent to UEENEEK130A Solve problems in 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>