



Australian Government

**UEERE0009 Conduct periodic maintenance
of remote area power supply wind
generators**

Release: 2

UEERE0009 Conduct periodic maintenance of remote area power supply wind generators

Modification History

Release 2. This minor update is the second release of this unit of competency in the UEE Electrotechnology Training Package.

Typographic error in prerequisite option requirements fixed.

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 conduct periodic maintenance of remote area power supply (RAPS) wind generators where the exposed voltage is not greater than 50 volt (V) alternating current (a.c.) or 120 V direct current (d.c).

It includes preparing for, completing and reporting on maintenance of RAPS wind generators.

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

UEECD0019 Fabricate, assemble and dismantle utilities industry components

UEERE0019 Maintain safety and tidiness of remote area power supply systems

UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications

UEERE0023 Work safely with remote area power supply systems

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 conduct periodic maintenance on wind generators

- 1.1** Work health and safety (WHS)/occupational health and safety (OHS) procedures for a RAPS plant 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** Risks/hazards are identified, assessed, reported to relevant person/s and control measures implemented
- 1.4** Nature and location of RAPS system is identified from relevant documentation or from relevant person/s to determine the scope of work
- 1.5** Instructions for coordinating work with relevant personnel and the local community is obtained from relevant person/s and applied
- 1.6** Materials required for the work are identified and accessed in accordance with workplace procedures
- 1.7** Tools, equipment and testing devices required for work are obtained and checked for correct operation and safety

2 Maintain RAPS systems wind generators

- 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/machines/plant are isolated in strict accordance with WHS/OHS requirements and workplace procedures
- 2.4** RAPS system wind generators are tested in accordance with relevant workplace procedures
- 2.5** Wind generator maintenance, including performance

- measurements and repairs, is completed safely in accordance with workplace routines and procedures
- 2.6** Known types of wind generator functional faults are identified using fault-finding procedures
- 2.7** Non-routine events are referred to relevant person/s for directions in accordance with workplace procedures
- 2.8** Maintenance and repair work are completed minimising waste of materials, energy, damage to apparatus, circuits, the surrounding environment and services
- 2.9** Quality checks are conducted in accordance with workplace procedures
- 3 Complete maintenance work of wind generators and report outcomes**
- 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** Maintenance issues are referred to the local community in accordance with workplace procedures
- 3.4** Wind generator performance measurements are reported to relevant person/s in accordance with maintenance reporting 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.

Unit Mapping Information

This unit replaces and is equivalent to UEENEEK106A Conduct periodic maintenance of remote area power supply wind generators.

Links

Companion Volume Implementation Guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>

Assessment Requirements for UEERE0009 Conduct periodic maintenance of remote area power supply wind generators

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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 one occasion and include:

- measuring and recording generator no-load and load voltages
- measuring and recording generator output for three load conditions
- visually inspecting generator and support structure for physical damage
- visually inspecting generator connections and cables
- identifying generator defects and faults
- reporting all maintenance activities
- dealing with unplanned events
- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements and workplace procedures and practices, including the use of risk control measures
- checking isolation of circuits/machines/system
- coordinating work with relevant personnel and the local community
- determining live testing/measurement requirements
- identifying and accessing materials, tools, equipment and testing devices
- maintaining remote area power supply (RAPS) wind generators.

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:

- RAPS systems wind generator maintenance techniques, including:
 - wind generator minor maintenance encompassing:
 - checking the integrity of support structure
 - tension of stay wires
 - visual inspection of wind generator operation

- maintaining logbooks and maintenance regime
- relevant manufacturer specifications
- relevant job safety assessments or risk mitigation processes
- relevant WHS/OHS legislated requirements
- relevant workplace documentation
- relevant workplace policies and procedures.

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 suitable workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in suitable 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
- resources that reflect current industry practices in relation to conducting periodic maintenance of RAPS wind generators
- 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>