

# **UEERE9987Y Maintain renewable energy (RE) apparatus**

## **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 maintain renewable energy (RE) apparatus.

It includes preparing to maintain RE apparatus, completing routine maintenance of RE apparatus, completing and reporting on maintenance activities.

Coverage of this unit is limited to basic routine scheduled preventative maintenance activities that do not require a licence to practice.

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

Note: Those holding an 'Unrestricted Electrician's Licence' or equivalent issued in an Australian state or territory meet the prerequisite requirements of this unit.

## **Pre-requisite Unit**

UEECD0044 Solve problems in multiple path circuits

UEECD0046 Solve problems in single path circuits

UEECD0019 Fabricate, assemble and dismantle utilities industry components

and

UEECD0025 Lay wiring/cabling and terminate accessories for extra-low voltage (ELV) circuits

or

UEEEL0023 Terminate cables, cords and accessories for low voltage circuits

## **Competency Field**

Renewable Energy

## Unit Sector

Electrotechnology

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

### PERFORMANCE CRITERIA

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

#### **1 Prepare to maintain RE apparatus**

- 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** Maintenance schedule/s, specifications, drawings, plans, job requirements and material lists are obtained, interpreted, and applied in accordance with workplace procedures
- 1.3** Work is prioritised and coordinated with relevant site personnel in accordance with workplace procedures
- 1.4** Competencies required to conduct work are determined from job specifications and/or consultations with appropriate person/s
- 1.5** Materials, tools, apparatus and testing devices required for the work are identified and accessed in accordance with workplace procedures
- 1.6** Need to test or measure live electrical work is determined in accordance with WHS/OHS, regulatory and licencing requirements and licenced personnel arranged to complete work if required

#### **2 Maintain RE apparatus**

- 2.1** Circuits/apparatus are confirmed as isolated, and other safety measures implemented, in accordance with WHS/OHS requirements and workplace procedures
- 2.2** Visual inspection of site and equipment is conducted and any hazards and/or anomalies requiring attention noted
- 2.3** System performance monitoring is completed and recorded in accordance with technical standards and workplace procedures

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|          | <b>2.4</b>  | Routine maintenance is conducted in accordance with schedule, technical standards and workplace procedures   |
|          | <b>2.5</b>  | Maintenance quality checks are conducted in accordance with job specifications, technical standards, regulatory requirements and/or workplace procedures |
|          | <b>2.6</b>  | Repairs within scope of personal competency and licence requirements are identified and completed in accordance with technical standards                 |
|          | <b>2.7</b>  | Repairs outside of personal competency and licence requirements are identified and reported in accordance with workplace procedures                      |
|          | <b>2.8</b>  | Maintenance quality checks are conducted in accordance with job specifications, technical standards, regulatory requirements and/or workplace procedures |
|          | <b>2.9</b>  | System is reenergised in accordance with technical standards and workplace procedures  |
| <b>3</b> | <b>Complete and report maintenance activities</b> |  |
|          | <b>3.1</b>  | Work area is cleaned and made safe in accordance with workplace procedures   |
|          | <b>3.2</b>  | Completion of work is documented and appropriate 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.

Repairs must include the following:

- RE apparatus is limited to replacement or repair of components within scope of competence and licencing requirements in which the fault has been previously determined.

Carrying out repairs to RE apparatus must include the following:

- two different RE apparatus withing scope of competence and licencing requirements in which three different types of components are faulty, one of which is mechanical.

## Unit Mapping Information

New unit

## Links

UEE - Electrotechnology Training Package Companion Volume Implementation Guide at:  
[sector webpage link here]

# Assessment Requirements for UEERE9987Y Maintain renewable energy (RE) apparatus

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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, performance criteria and range of conditions on at least two occasion and include:

- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including the use of risk control measures
- completing visual inspection of system and identifying any hazards and/or anomalies
- completing routine scheduled maintenance in accordance with maintenance schedule, technical standards and safety requirements
- monitoring and documenting performance of system
- completing physical repairs withing scope of competence and licencing requirements
- notifying relevant parties of electrical work outside of competence and licencing requirements
- completing required documentation.

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions and include knowledge of:

- relevant WHS/OHS requirements
- relevant workplace documentation, policies and procedures
- relevant manufacturer specifications, technical standards and maintenance guidelines
- relevant regulations including licencing requirements for electrical work
- commonly used renewable energy generating and storage systems including different equipment types, layout and their componentry
- maintenance procedures for:
  - PV arrays
  - batteries
  - generators
  - Power Conversion Equipment (PCEs)
- maintenance processes including:

- maintenance terminology
- maintenance function and role of maintenance department
- system maintenance including:
  - visual site and system inspection
  - scheduled preventative maintenance
  - predictive maintenance
  - corrective maintenance
- correct isolation, shut down and re-energisation processes and procedures
- appropriate maintenance methods for system components using appropriate safety procedures
- maintenance data acquisition.

## 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 carrying out repairs to RE apparatus by replacement of components
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

## Links

UEE - Electrotechnology Training Package Companion Volume Implementation Guide at:  
[sector webpage link here]