



Australian Government

UEPMNT442 Maintain wind turbine generator electrical systems

Release: 1

UEPMNT442 Maintain wind turbine generator electrical systems

Modification History

Release 1. This is the first release of this unit of competency in the UEP Generation Training Package.

Application

This unit involves the skills and knowledge required to undertake scheduled maintenance of electrical systems in large scale wind turbine generators.

Maintenance is the process of optimising power generation plant and equipment operations through regular inspections and verification of electrical systems in large scale wind turbine generators.

Competency in this unit requires the ability to plan work, conduct maintenance on wind turbine generator electrical systems and complete all work tasks. Individuals will, in general, work under supervision in an electrical, electronic and/or mechanical equipment repair workshop or on site.

Power generation maintenance personnel are typically trained and authorised to receive permits to work.

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

Note: Workplace practice

The application of the skills and knowledge described in this unit of competency may require a licence or training permit to practice in the workplace, where work is carried out on gas and electrical installations. Additional and/or other conditions may apply under state and territory legislative and regulatory licensing requirements.

Pre-requisite Unit

UEPMNT371 Maintain large scale wind turbine generators

UEENEEG006A Solve problems in single and three phase low voltage machines

UEENEEE102A Fabricate, assemble and dismantle electrotechnology components

UEENEEE104A Solve problems in D.C circuits

UEENEEE105A Fix and secure electrotechnology equipment

UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications

UEENEEG101A Solve problems in electromagnetic devices and related circuits

UEENEEG102A Solve problems in low voltage A.C. circuit

UEENEEG106A Terminate cables, cords and accessories for low voltage circuits

Competency Field

Maintenance

Unit Sector

Electricity generation

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Plan and prepare for work

PERFORMANCE CRITERIA

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

- 1.1** Requirements including scope of work and assigned roles are identified and are confirmed with appropriate personnel or by site inspection, in accordance with workplace procedures
- 1.2** Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) regulations, legislative requirements, industry standards, codes of practice, manufacturers' specifications, environmental obligations and workplace procedures are reviewed in preparation for work
- 1.3** Resources are obtained and inspected for compliance with job specification
- 1.4** Relevant plans, drawings and manuals are selected and used, in accordance with workplace procedures
- 1.5** Work is planned, sequenced and prioritised, in accordance with workplace procedures
- 1.6** Work area is prepared, in accordance with workplace procedures

2 Conduct maintenance on wind turbine generator electrical systems

- 2.1** Wind turbine generator equipment is replaced, if required, due to faulty operation or maintenance plan requirements, in accordance with workplace procedures and manufacturers' specifications
- 2.2** Documented service checklists, or similar are followed, in accordance with workplace procedures
- 2.3** Diagnostic testing and data from monitoring systems is used to identify those components requiring

maintenance

- 2.4 Wind turbine generator equipment is dismantled, if required, for maintenance, in accordance with manufacturers' specifications and workplace procedures
 - 2.5 Techniques are used to enable identification or reassembly of wind turbine generator equipment, in accordance with workplace procedures
 - 2.6 New components are obtained, if required, and are inspected for compliance with manufacturers' specifications
 - 2.7 Wind turbine generator equipment is tested, monitored and adjusted, if required, in accordance with workplace procedures and manufacturers' specifications
- 3 Complete work**
- 3.1 Work is completed and appropriate personnel are notified, in accordance with workplace requirements
 - 3.2 Work area is cleared of waste, cleaned, restored and secured, in accordance with workplace procedures
 - 3.3 Tools and equipment are maintained and stored, in accordance with workplace procedures
 - 3.4 Work completion details are finalised, 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 Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UEPMNT442A Maintain wind turbine generator electrical systems.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1715b9fa-e7bd-441c-bb8d-cf22c9c825a8>