



Australian Government

# **UEERE0069 Diagnose and rectify faults in renewable energy (RE) control systems**

Release: 1

# **UEERE0069 Diagnose and rectify faults in renewable energy (RE) control systems**

## **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 UEERE0034 Diagnose and rectify faults in renewable energy control systems. Modifications include:

- Licensing statement updated
- Prerequisites changed
- Significant amendments made to Elements and Performance Criteria
- Performance Evidence amended to reflect changed elements and performance criteria.

## **Application**

This unit involves the skills and knowledge required to diagnose and rectify faults in renewable energy (RE) control systems.

It includes preparing to work on RE control systems, diagnosing and rectifying faults in RE control systems, and completing and reporting fault-finding and repair 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**

UEERE0054 Conduct site survey for grid-connected renewable energy systems

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

## **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.

|                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1 Prepare to diagnose and rectify faults</b>            | <p><b>1.1</b> 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</p> <p><b>1.2</b> The nature of the fault/issue is identified from stakeholders and relevant data and documentation</p> <p><b>1.3</b> Requirements for working with other stakeholders are confirmed and applied</p> <p><b>1.4</b> Required materials, tools, apparatus and testing devices are identified, accessed and checked for correct operation and safety</p> <p><b>1.5</b> Need to test or measure live electrical work is determined in accordance with WHS/OHS requirements and workplace procedures</p> |
| <b>2 Diagnose and rectify faults in RE control systems</b> | <p><b>2.1</b> Circuits/apparatus are isolated in accordance with WHS/OHS requirements and workplace procedures</p> <p><b>2.2</b> Nature of reported fault/issue is verified</p> <p><b>2.3</b> System testing is conducted and documented</p> <p><b>2.4</b> Fault/s are diagnosed, faulty equipment is identified, and the replacement products required are documented</p> <p><b>2.5</b> System is made safe, faulty apparatus is dismantled, recorded and stored in accordance with manufacturer guides and stakeholder instructions</p> <p><b>2.6</b> Repaired or replaced apparatus is assembled in accordance with manufacturer guidelines, industry standards and regulation</p>                                  |

**3 Complete and report fault-finding and repair activities**

- 3.1** Repaired apparatus is tested and commissioned in accordance with manufacturer guidelines, industry standards and regulation
- 3.2** Work area is cleaned and made safe
- 3.3** Repair is documented and stakeholders notified

## 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.

RE system fault finding and repairing must include at least four of the following:

- open circuit
- short circuit
- incorrect connections
- insulation failure
- unsafe condition
- apparatus/component failure
- related mechanical failure.

## Unit Mapping Information

This unit replaces and is not equivalent to UEERE0034 Diagnose and rectify faults in renewable energy control systems.

## Links

Companion Volume Implementation Guides are found in VETNet -

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