



**Australian Government**

# **UEERE0046 Solve problems in stand-alone renewable energy (RE) systems**

**Release: 1**

# **UEERE0046 Solve problems in stand-alone renewable energy (RE) systems**

## **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 stand-alone renewable energy (RE) systems.

It includes preparing to work on stand-alone RE systems, solving problems in stand-alone RE systems, 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**

UEERE0025 Carry out basic repairs to renewable energy apparatus

## **Competency Field**

Renewable Energy

## **Unit Sector**

Electrotechnology

## **Elements and Performance Criteria**

### **ELEMENTS**

Elements describe the essential outcomes.

#### **1 Prepare to work on stand-alone RE systems**

### **PERFORMANCE CRITERIA**

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

**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
	<b>1.3</b> Nature of the apparatus problem is identified from documentation or from relevant person/s to determine the scope of work
	<b>1.4</b> Instructions for coordinating work with others is obtained from relevant person/s and applied
	<b>1.5</b> Materials required for the work are identified and accessed in accordance with workplace procedures
	<b>1.6</b> Tools, equipment and testing devices required for work are obtained and checked for correct operation and safety
<b>2 Undertake problem solving in stand-alone RE systems</b>	<b>2.1</b> Need to test or measure live electrical work is determined in accordance with WHS/OHS requirements and conducted in accordance with workplace procedures
	<b>2.2</b> Circuits are isolated in accordance with WHS/OHS requirements and workplace procedures
	<b>2.3</b> Stand-alone RE system problems are solved using measured and calculated values of apparatus operating parameters and in accordance with workplace procedures
	<b>2.4</b> Problems are solved without damage to apparatus, circuits, the surrounding environment and services applying sustainable energy practices
<b>3 Complete work and document problem-solving activities</b>	<b>3.1</b> Worksite is cleaned and made safe in accordance with workplace procedures
	<b>3.2</b> Justification for solutions used to solve stand-alone RE systems problems is documented
	<b>3.3</b> 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

Non-essential conditions may be found in the UEE Electrotechnology Training Package Companion Volume Implementation Guide.

RE system problem solving must include at least three of the following problems:

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

## Unit Mapping Information

This unit replaces and is equivalent to UEENEEK128A Solve problems in stand-alone renewable energy systems.

## Links

Companion Volume implementation guides are found in VETNet - -

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