



**Australian Government**

# **UEE50722 Diploma of Renewable Energy Engineering**

**Release 1**

# UEE50722 Diploma of Renewable Energy Engineering

## Modification History

Release 1. This is the first release of this qualification in the UEE Electrotechnology Training Package

This qualification replaces and is not equivalent to UEE50720 Diploma of Renewable Energy Engineering. Modifications include:

- Qualification description updated
- Significant changes to core and elective unit structure and packaging rules

## Qualification Description

This qualification provides competencies to design renewable energy systems; supervise installation and maintenance; and develop, select, commission, maintain and diagnose faults/malfunctions on large-scale renewable energy (RE) equipment and systems.

There are skills and knowledge covered in this qualification that require a licence or permit to practice.

## Entry Requirements

The entry requirement for this qualification is:

- UEE30820 Certificate III in Electrotechnology Electrician
- or
- a current 'Unrestricted Electricians Licence' or its equivalent issued in an Australian state or territory.

## Packaging Rules

A total of **760 weighting points** comprising:

**310 core weighting points**; plus

**450 elective weighting points**

Choose a minimum of **430 elective weighting points** units from the list below, of which:

- **20 weighting points** must be taken from Group A
- a minimum of **80 weighting points** must be taken from Group B
- between **0 and 350 weighting points** can be taken from Group C
- between **0 and 200 weighting points** can be taken from Group D

Up to **200 weighting points** of the elective units Group D, may be selected, with appropriate contextualisation, from any relevant nationally endorsed Training Package or accredited course,

provided that selected units contribute to the vocational outcome of the qualification. Previously assigned weighting points are listed in the UEE Electrotechnology Training Package Companion Volume Implementation Guide (CVIG), if not listed weighting points will be 10 points, unless directed from the Electrotechnology Industry Reference Committee (IRC).

There are units of competency within this qualification that contain pre-requisites. Units of competency that have a pre-requisite requirement are identified by this symbol \*. Refer directly to the units of competency to identify pre-requisite requirements to ensure all are complied with. A list of all pre-requisites is also provided in the UEE Pre-requisite Companion Volume.

Where imported units are selected, care must be taken to ensure all pre-requisite units specified are complied with.

<b>Core units</b>		<b>Weighting Points</b>
UEECD0010	Compile and produce an energy sector detailed report	60
UEECD0024	Implement and monitor energy sector WHS policies and procedures	20
UEECD0062	Write specifications for renewable energy engineering projects	40
UEERE0049	Apply safe work practices in the rooftop solar industry	20
UEERE0054	Conduct site survey for grid-connected photovoltaic and battery storage systems	30
UEERE0055	Conduct site survey for off-grid photovoltaic/generating systems	40
UEERE0056	Coordinate maintenance of renewable energy (RE) apparatus and systems*	20
UEERE0078	Install battery storage to power conversion equipment *	30
UEERE0081	Install photovoltaic systems to power conversion equipment *	30
UEERE0082	Maintain renewable energy (RE) apparatus *	20
<b>Group A Elective units</b>		<b>Weighting Points</b>
UEEEL0047	Identify, shut down and restart systems with alternate supplies*	20
UEERE0050	Identify and isolate multiple supply systems *	20
<b>Group B Elective units</b>		<b>Weighting Points</b>
UEERE0057	Coordinate the design of micro-grid renewable energy	50

	systems	
UEERE0058	Coordinate the installation, fault finding and repair of micro grid systems	40
UEERE0060	Design grid-connected battery storage systems *	40
UEERE0061	Design grid-connected photovoltaic power supply systems *	40
UEERE0062	Design micro-hydro systems *	40
UEERE0063	Design off-grid photovoltaic/generating set systems *	40
UEERE0064	Design renewable energy heating systems *	40
UEERE0065	Design wind energy systems *	40
<b>Group C Elective units</b>		<b>Weighting Points</b>
CPPHES4005	Assess household energy use and efficiency improvements	40
UEECO0013	Prepare specifications for the supply of materials and equipment for electrotechnology projects	40
UEECO0014	Prepare tender submissions for electrotechnology projects*	60
UEEEEC0060	Repairs basic electronic apparatus faults by replacement of components*	40
UEEEEC0075	Troubleshoot single phase input d.c power supplies*	40
UEEEL0011	Evaluate performance of low voltage electrical apparatus*	40
UEEEL0040	Develop compliance policies and plans to conduct an electrical contracting business*	80
UEEEL0078	Install and commission whole current electricity meters	20
UEEIC0002	Assemble, enter and verify operating instructions in microprocessor equipped devices*	20
UEEIC0013	Develop, enter and verify discrete control programs for programmable controllers*	60
UEERE0052	Assess energy loads and uses for energy efficiency in commercial facilities*	40

UEERE0053	Assess energy loads and uses for energy efficiency in industrial properties and enterprises*	40
UEERE0068	Develop strategies to address sustainability issues for electrical installations	20
UEERE0069	Diagnose and rectify faults in renewable energy (RE) control systems*	60
UEERE0070	Fault find and repair grid-connected photovoltaic power supply systems *	30
UEERE0071	Fault find and repair off-grid photovoltaic/generating set systems to an electrical installation *	30
UEERE0075	Install and maintain micro hydro energy systems to power conversion equipment *	30
UEERE0076	Install and maintain wind energy systems to power conversion equipment *	30
UEERE0077	Install battery storage equipment power conversion equipment to grid *	30
UEERE0079	Install off-grid power conversion equipment to electrical installation *	30
UEERE0080	Install photovoltaic power conversion equipment to grid *	30

**Group D Elective units****Weighting Points**

BSBINS501	Implement information and knowledge management systems	50
BSBLDR522	Manage people performance	70
BSBSTR501	Establish innovative work environments	50
BSBSTR502	Facilitate continuous improvement	60
BSBTWK502	Manage team effectiveness	60
ICTICT214	Operate application software packages	20
UEECD0030	Prepare electrotechnology/utilities drawings using manual drafting and CAD equipment and software*	60
UEECD0031	Prepare engineering drawings using manual drafting and CAD for electrotechnology applications*	60

UEECD0032	Produce detailed electrotechnology/utilities drawings using CAD equipment and software*	60
UEECO0001	Estimate electrotechnology projects	40
UEECO0013	Prepare specifications for the supply of materials and equipment for electrotechnology projects	40
UEECO0015	Provide quotations for installation or service jobs	20
UEECO0017	Source and purchase material/parts for installation or service jobs	20
UEECS0033	Use engineering applications software on personal computers	40
UEERE0084	Manage renewable energy (RE) projects	40
UEERE0085	Plan renewable energy (RE) projects	60

## Qualification Mapping Information

This qualification replaces and is not equivalent to UEE50720 Diploma of Renewable Energy Engineering

## Links

Companion Volume Implementation Guides are found in VETNet -

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