



Australian Government

UEE43322 Certificate IV in Electrical - Renewable Energy

Release: 1

UEE43322 Certificate IV in Electrical - Renewable Energy

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:

- UEE41920 Certificate IV in Electrical - Renewable Energy
- UEE42020 Certificate IV in Electrical - Photovoltaic systems; and
- UEE43120 Certificate IV in Energy Efficiency and Assessment

Modifications include:

- Consolidation of three qualifications into this one
- Changes to core and elective units to reflect consolidation
- Changes to elective group structure and packaging rules

Qualification Description

This qualification provides competencies to select, install, set up, test, fault find, repair and maintain renewable energy (RE) electrical systems and equipment in buildings and premises.

It includes requirements and competencies to select, install, set up, test, fault find, repair and maintain stand-alone 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 **440 weighting points** comprising:

210 core weighting points; plus

230 elective weighting points

Choose a minimum of **230 elective weighting points** units from the list below, of which:

- **20 weighting points** must be taken from Group A
- a minimum of **60 weighting points** must be taken from Group B
- a minimum of **30 weighting points** must be taken from Group C
- between **0 and 80 weighting points** can be taken from Group D
- between **0 and 120 weighting points** can be taken from Group E
- between **0 and 60 weighting points** can be taken from Group F

Up to **60 weighting points** of the elective units Group E, 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.

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.

Core units		Weighting Points
UEECD0010	Compile and produce an energy sector detailed report	60
UEECD0024	Implement and monitor energy sector WHS policies and procedures	20
UEERE0049	Apply safe work practices in the rooftop solar industry	20
UEERE0054	Conduct site survey for grid-connected photovoltaic and battery storage systems	30
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
Group A Elective units		Weighting Points
UEEEL0047	Identify, shut down and restart systems with alternate supplies*	20
UEERE0050	Identify and isolate multiple supply systems *	20
Group B Elective units		Weighting Points
UEERE0055	Conduct site survey for off-grid photovoltaic/generating	40

	set systems	
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 C Elective units		Weighting Points
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
Group D Elective units		Weighting Points
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
Group E Elective units		Weighting Points
CPPHES4005	Assess household energy use and efficiency improvements	40
UEEDV0005	Install and maintain cabling for multiple access to telecommunication services*	80
UEEEL0050	Install and replace low voltage current transformer metering*	20

UEEEL0078	Install and commission whole current electricity meters	20
UEEIC0002	Assemble, enter and verify operating instructions in microprocessor equipped devices*	20
UEEIC0009	Develop an electrical integrated system interface for access through a touch screen*	20
UEEIC0011	Develop electrical integrated systems*	20
UEEIC0013	Develop, enter and verify discrete control programs for programmable controllers*	60
UEEIC0014	Develop, enter and verify programs in supervisory control and data acquisition systems*	60
UEEIC0015	Develop, enter and verify word and analogue control programs for programmable logic controllers*	60
UEEIC0024	Plan the electrical installation of integrated systems*	20
UEEEL0029	Conduct compliance inspection of LV electrical installations with demand exceeding 100 A per phase*	40
UEEEL0030	Conduct compliance inspection of single phase LV electrical installations*	60
UEEEL0031	Conduct compliance inspection of special LV electrical installations*	60
UEEEL0040	Develop compliance policies and plans to conduct an electrical contracting business*	80
UEEEL0050	Install and replace low voltage current transformer metering*	20
UEEEL0051	Investigate and report on electrical incidents and causes*	60
UEEEL0057	Plan electrical installations with a low voltage demand up to 400 A per phase*	40
UEEEL0063	Provide photometric data for illumination system design	60
UEEEL0069	Select and arrange equipment for special LV electrical installations*	60
UEEEL0073	Verify compliance and functionality of special LV electrical installations*	40
UEERE0052	Assess energy loads and uses for energy efficiency in	40

	commercial facilities*	
UEERE0053	Assess energy loads and uses for energy efficiency in industrial properties and enterprises*	40
UEERE0056	Coordinate maintenance of renewable energy (RE) apparatus and systems*	20
UEERE0061	Design grid-connected photovoltaic power supply systems*	60
UEERE0068	Develop strategies to address sustainability issues for electrical installations	20
UEERE0069	Diagnose and rectify faults in renewable energy (RE) control systems*	60
UEERE0083	Maintain safety and tidiness of remote area power supply systems*	20
UEERE0088	Work safely with remote area power supply systems*	20
Group F Elective units		Weighting Points
ICTICT214	Operate application software packages	20
UEECD0031	Prepare engineering drawings using manual drafting and CAD for electrotechnology applications*	60
UEECD0035	Provide basic instruction in the use of electrotechnology apparatus	20
UEECD0056	Apply methods to maintain currency of industry developments	20
UEECO0001	Estimate 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
UEERE0086	Promote sustainable energy practices	40

Qualification Mapping Information

This qualification replaces and is not equivalent to:

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- UEE42020 Certificate IV in Electrical - Photovoltaic systems; and
- UEE43120 Certificate IV in Energy Efficiency and Assessment

Links

Companion Volume Implementation Guides are found in VETNet -

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