



Australian Government

UEE50720 Diploma of Renewable Energy Engineering

Release 1

UEE50720 Diploma of Renewable Energy Engineering

Modification History

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

Qualification Description

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

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

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:

240 core weighting points listed below; **plus**

520 general elective weighting points from the general elective units listed below.

Choose a total of **520 weighting points** elective units from the list below, of which between 0 and **260 weighting points** can be taken from Group A; between 0 and **100 weighting points** must be taken from Group B; between 0 and **240 weighting points** must be taken from Group C; and between 260 and **340 weighting points** must be taken from Group D.

Up to 260 weighting points of the general elective units Group A, 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.

Core units		Weighting Points
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UEECD0010	Compile and produce an energy sector detailed report	60
UEECD0024	Implement and monitor energy sector WHS policies and procedures	20
UEECD0027	Participate in development and follow a personal competency development plan	20
UEECD0062	Write specifications for renewable energy engineering projects	40
UEERE0013	Develop strategies to address environmental and sustainability issues in the energy sector	20
UEERE0025	Carry out basic repairs to renewable energy (RE) apparatus*	80

Group A: Imported and common elective units		Weighting Points
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BSBCUS201	Deliver a service to customers	20
BSBINM501	Manage an information or knowledge management system	50
BSBINN502	Build and sustain an innovative work environment	50
BSBMGT502	Manage people performance	70
BSBMGT516	Facilitate continuous improvement	60
BSBWOR502	Lead and manage team effectiveness	60
ICTICT203	Operate application software packages	20
UEECD0011	Comply with scheduled and preventative maintenance program processes	20
UEECD0035	Provide basic instruction in the use of electrotechnology apparatus	20

UEECO0002	Maintain documentation	20
UEECO0015	Provide quotations for installation or service jobs	20
UEECO0017	Source and purchase material/parts for installation or service jobs	20

Group B: Qualification elective units**Weighting Points**

UEECS0033	Use engineering applications software on personal computers	40
UEEEEC0060	Repairs basic electronic apparatus faults by replacement of components*	40
UEEEEC0075	Troubleshoot single phase input d.c power supplies*	40
UEEEL0013	Install, set up and commission interval metering*	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
UEERE0016	Install, configure and commission LV grid-connected photovoltaic power systems*	40
UEERE0022	Solve basic problems in photovoltaic energy apparatus and systems*	20
UEERE0034	Diagnose and rectify faults in renewable energy (RE) control systems*	60
UEERE0035	Install ELV stand-alone photovoltaic power systems*	60
UEERE0036	Install small wind energy conversion systems rated up to 10 kW for ELV stand-alone applications*	20
UEERE0037	Install, configure and commission LV micro-hydro systems rated up to 6.4 kW*	20
UEERE0038	Install, configure and commission LV wind energy conversion systems rated up to 10 kW*	40
UEERE0039	Install, set up and maintain ELV micro-hydro systems rated up to 6.4 kW*	20

UEERE0045	Solve basic problems in micro-hydro systems*	20
UEERE0046	Solve problems in stand-alone renewable energy (RE) systems*	60
UEERE0047	Solve problems in wind energy conversion systems (WECS) rated up to 10 kW*	60
UEERE5001	Design battery storage systems for grid-connected photovoltaic systems*	80

Group C: Qualification elective units**Weighting Points**

UEECO0001	Estimate electrotechnology projects	40
UEECO0013	Prepare specifications for the supply of materials and equipment for electrotechnology projects	40
UEEEL0040	Develop compliance policies and plans to conduct an electrical contracting business*	80
UEERE0003	Assess energy loads and uses for energy efficiency in commercial facilities*	40
UEERE0004	Assess energy loads and uses for energy efficiency in industrial properties and enterprises*	40
UEERE0005	Assess energy loads and uses for energy efficiency in residential, office and retail premises*	40
UEERE0011	Design grid-connected photovoltaic power supply systems*	60
UEERE0014	Develop strategies to address sustainability issues for electrical installations*	20
UEERE0015	Implement and monitor energy sector environmental and sustainable policies and procedures	20

Group D: Qualification elective units**Weighting Points**

UEECO0014	Prepare tender submissions for electrotechnology projects*	60
UEEEL0011	Evaluate performance of low voltage electrical apparatus*	40
UEERE0029	Design micro-hydro systems rated to 6.4 kW*	60

UEERE0030	Design renewable energy (RE) heating systems*	120
UEERE0032	Design wind energy conversion systems (WECS) rated to 10 kW*	60

Qualification Mapping Information

This qualification replaces and is not equivalent to UEE50711 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>