



Australian Government

**UEE62020 Advanced Diploma of
Engineering Technology - Renewable
Energy**

Release 1

UEE62020 Advanced Diploma of Engineering Technology - Renewable Energy

Modification History

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

Qualification Description

This qualification provides competencies in preparation to design and validate/evaluate renewable energy (RE) equipment and systems and provide technical advice/sales.

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

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

A total of **2160 weighting points** comprising:

1260 core weighting points listed below; **plus**

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

Choose a total of **900 weighting points** elective units from the list below, of which between 0 and 360 **weighting points** can be taken from Group A; between 0 and 240 **weighting points** can be taken from Group B; between 0 and 220 **weighting points** can be taken from Group C; between 0 and 220 **weighting points** can be taken from Group D; and between 280 and 320 **weighting points** can be taken from Group E.

Up to 170 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
UEECD0003	Apply industry and community standards to engineering activities	20
UEECD0004	Apply material science to solving electrotechnology engineering problems	60
UEECD0005	Apply physics to solving electrotechnology engineering problems	60
UEECD0007	Apply work health and safety regulations, codes and practices in the workplace	20
UEECD0010	Compile and produce an energy sector detailed report	60
UEECD0014	Develop design briefs for electrotechnology projects	40
UEECD0016	Document and apply measures to control WHS risks associated with electrotechnology work*	20
UEECD0019	Fabricate, assemble and dismantle utilities industry components*	40
UEECD0020	Fix and secure electrotechnology equipment*	20
UEECD0024	Implement and monitor energy sector WHS policies and procedures	20
UEECD0025	Lay wiring/cabling and terminate accessories for extra-low voltage (ELV) circuits*	40
UEECD0036	Provide engineering solutions for problems in complex multiple path circuits	60
UEECD0039	Provide solutions to basic engineering computational problems*	60
UEECD0043	Solve problems in direct current circuits*	80
UEECD0051	Use drawings, diagrams, schedules, standards, codes and specifications*	40
UEECD0062	Write specifications for renewable energy engineering projects	40

UEECS0033	Use engineering applications software on personal computers	40
UEEEL0019	Solve problems in direct current (d.c.) machines*	30
UEEEL0020	Solve problems in low voltage a.c. circuits*	80
UEEEL0021	Solve problems in magnetic and electromagnetic devices*	30
UEEEL0062	Provide engineering solutions to problems in complex polyphase power circuits*	60
UEERE0013	Develop strategies to address environmental and sustainability issues in the energy sector	20
UEERE0022	Solve basic problems in photovoltaic energy apparatus and systems*	20
UEERE0025	Carry out basic repairs to renewable energy (RE) apparatus*	80
UEERE0034	Diagnose and rectify faults in renewable energy (RE) control systems*	60
UEERE0042	Manage renewable energy (RE) projects	40
UEERE0044	Plan renewable energy (RE) projects	60
UEERE0046	Solve problems in stand-alone renewable energy (RE) systems*	60

Group A: Imported and common elective units.**Weighting Points**

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
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**

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
UEEIC0013	Develop, enter and verify discrete control programs for programmable controllers*	60
UEERE0017	Maintain and repair facilities associated with remote area essential service operations*	120
UEERE0024	Attend to breakdowns in remote area power supplies (RAPS)*	20
UEERE0026	Conduct checks in the demand side use of remote area power supplies (RAPS)*	40
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
UEERE0039	Install, set up and maintain ELV micro-hydro systems rated up to 6.4 kW*	20
UEERE0041	Maintain operation of remote area power generation plant*	120
UEERE0043	Plan periodic maintenance schedules of remote area power supplies (RAPS)*	40
UEERE0045	Solve basic problems in micro-hydro systems*	20

UEERE0047	Solve problems in wind energy conversion systems (WECS) rated up to 10 kW*	60
UEERE0048	Verify compliance and functionality of an extra-low voltage renewable energy installation*	40
UEERL0001	Attach cords and plugs to electrical equipment for connection to a single phase 230 Volt supply*	20
UEERL0002	Attach cords, cables and plugs to electrical equipment for connection to 1000 V a.c. or 1500 V d.c.*	20
UEERL0003	Conduct in-service safety testing of electrical cord connected equipment and cord assemblies*	20

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

UEECD0032	Produce detailed electrotechnology/utilities drawings using CAD equipment and software*	60
UEECD0047	Supervise and coordinate energy sector work activities	40
UEECO0001	Estimate electrotechnology projects	40
UEECO0013	Prepare specifications for the supply of materials and equipment for electrotechnology projects	40
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
UEERE0011	Design grid-connected photovoltaic power supply systems*	60
UEERE0027	Coordinate maintenance of renewable energy (RE) apparatus and systems*	20

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

UEEEL0006	Develop detailed and complex drawings for electrical systems using CAD systems*	60
UEERE0030	Design renewable energy (RE) heating systems*	120
UEERE0032	Design wind energy conversion systems (WECS) rated to 10 kW*	60

UEERE0029	Design micro-hydro systems rated to 6.4 kW*	60
Group E: Qualification elective units.		Weighting Points
UEERE0010	Design energy management controls for electrical installations in buildings*	80
UEERE0012	Develop effective engineering strategies for energy reduction in buildings*	60
UEERE0028	Design hybrid renewable power systems*	80
UEERE0031	Design stand-alone renewable energy (RE) systems*	40
UEERE0033	Develop engineering solutions to renewable energy (RE) problems*	60

Qualification Mapping Information

This qualification replaces and is equivalent to UEE62011 Advanced Diploma of Engineering Technology - Renewable Energy

Links

Companion Volume implementation guides are found in VETNet - -

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