



Australian Government

UEE50711 Diploma of Renewable Energy Engineering

Release 4

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Modification History

Release	Action	Core/Elective	Details	Points
2	Edit		Edit Name to reflect correct Unit title UEENEE104A Use engineering applications software on personal computers	40
3	Edit	Group C	Edit Name to reflect correct Unit title UEENEEK145A Implement and monitor energy sector environmental and sustainable policies and procedures	20
4	Edit	Core	Correct title of UEENEE074B Write specifications for renewable energy engineering projects	40
4	Edit	Core	Correct title of UEENEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
4	Edit	Core	Correct title of UEENEE102A Fabricate, assemble and dismantle utilities industry components	40
4	Edit	Core	Correct title of UEENEE124A Compile and produce an energy sector detailed report	60
4	Edit	Elective	Correct title of UEENEE004B Prepare specifications for the supply of materials and equipment for electrotechnology projects	40
4	Edit	Elective	Correct title of UEENEE101A Use computer applications relevant to a workplace	20
4	Edit	Elective	Correct title of UEENEE131A Evaluate performance of low voltage electrical apparatus	40
4	Edit	Elective	Correct title of UEENEE102A Repairs basic electronic apparatus faults by replacement of components	40

4	Edit	Elective	Correct title of UEENEEI116A Assemble, enter and verify operating instructions in microprocessor equipped devices	20
4	Edit	Elective	Correct title of UEENEEK128A Solve problems in stand-alone renewable energy systems	60
4	Edit	Elective	Correct title of UEENEEK130A Solve problems in wind energy conversion systems rated up to 10 kW	60
4	Edit	Elective	Correct title of UEENEEK131A Design wind energy conversion systems (WECS) rated to 10 kW	60
4	Edit	Elective	Correct title of UEENEEK134A Install ELV stand-alone photovoltaic power systems	60
4	Edit	Elective	Correct title of UEENEEK135A Design grid connected photovoltaic power supply systems	60
4	Edit	Elective	Correct title of UEENEEK137A Install, set up and maintain ELV micro-hydro systems rated up to 6.4 kW	20
4	Edit	Elective	Correct title of UEENEEK138A Design micro-hydro systems rated to 6.4 kW	60
4	Edit	Elective	Correct title of UEENEEK143A Install small wind energy conversion systems rated up to 10 kW for ELV stand-alone applications	20
4	Edit	Elective	Correct title of UEENEEK144A Install, configure and commission LV wind energy conversion systems rated up to 10 kW	40
4	Edit	Elective	Correct title of UEENEEK148A Install, configure and commission LV grid connected photovoltaic power systems	40
4	Edit	Elective	Correct title of UEENEEK153A Assess energy loads and uses for energy efficiency in residential, office and retail premises	40
4	Edit	Elective	Correct title of UEENEEK154A Assess energy loads and uses for energy efficiency in commercial facilities	40
4	Edit	Elective	Correct title of UEENEEK155A Assess energy loads and uses for energy efficiency in industrial	40

			properties and enterprises	
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Description

Scope

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

Pathways Information

Not applicable.

Licensing/Regulatory Information

Not applicable.

Entry Requirements

Not applicable.

Employability Skills Summary

Not applicable.

Packaging Rules

Completion requirements

The requirements for granting this qualification will be met when competency is demonstrated and achieved for:

- All the Core competency standard units, defined in the Core Competency Standard Units table below and
- A combination of Elective competency standard units to achieve a total weighting of 520 points in accordance with the Elective Competency Standard Units table below.
- All the required prerequisite competency standard units

Note: UEENEEG105A - Those holding an 'Unrestricted Electricians Licence or equivalent issued in an Australian State or Territory meets the requirements of this unit and its pre-requisite requirements.

Core Competency Standard Units		Weighting Points
All Core competency standard units to be achieved		
UEENEEE038B	Participate in development and follow a personal competency development plan	20
UEENEEE074B	Write specifications for renewable energy engineering projects	40
UEENEEE101A	Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
UEENEEE102A	Fabricate, assemble and dismantle utilities industry components	40
UEENEEE104A	Solve problems in d.c. circuits	80
UEENEEE105A	Fix and secure electrotechnology equipment	20
UEENEEE107A	Use drawings, diagrams, schedules, standards, codes and specifications	40
UEENEEE117A	Implement and monitor energy sector OHS policies and procedures	20
UEENEEE124A	Compile and produce an energy sector detailed report	60
UEENEEE137A	Document and apply measures to control OHS risks associated with electrotechnology work	20
UEENEEG006A	Solve problems in single and three phase low voltage machines	80

UEENEEG033A	Solve problems in single and three phase low voltage electrical apparatus and circuits	60
UEENEEG063A	Arrange circuits, control and protection for general electrical installations	40
UEENEEG101A	Solve problems in electromagnetic devices and related circuits	60
UEENEEG102A	Solve problems in low voltage a.c. circuits	80
UEENEEG103A	Install low voltage wiring and accessories	20
UEENEEG104A	Install appliances, switchgear and associated accessories for low voltage electrical installations	20
UEENEEG105A	Verify compliance and functionality of low voltage general electrical installations	40
UEENEEG106A	Terminate cables, cords and accessories for low voltage circuits	40
UEENEEG107A	Select wiring systems and cables for low voltage general electrical installations	60
UEENEEG108A	Trouble-shoot and repair faults in low voltage electrical apparatus and circuits	40
UEENEEG109A	Develop and connect electrical control circuits	80
UEENEEK123A	Carry out basic repairs to renewable energy apparatus	80
UEENEEK132A	Develop strategies to address environmental and sustainability issues in the energy sector	20
Total points in core		1080

Elective Competency Standard Units

Complete Elective units to achieve a total of weighting of 520 points from the following groups:

Group	Minimum points	Maximum points
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A	Imported and Common Elective Units Imported units from other training packages and/or state accredited courses can be added to this group, but they must be selected from qualifications where the unit is first packaged at AQF level 5. If units have not being assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0	260
B	Qualification Elective Units	0	100
C	Qualification Elective Units	0	240
D	Qualification Elective Units	260	340

Group A – Imported and Common Elective Units		Weighting Points
You may complete units to a maximum weighting of 260		
BSBMGT502B	Manage people performance	70
BSBINM501A	Manage an information or knowledge management system	50
BSBMGT516C	Facilitate continuous improvement	60
BSBINN502A	Build and sustain an innovative work environment	50
BSBWOR502B	Ensure team effectiveness	60
UEENEEC001B	Maintain documentation	20
UEENEEC002B	Source and purchase material/parts for installation or service jobs	20
UEENEEC003B	Provide quotations for installation or service jobs	20
UEENEEC010B	Deliver a service to customers	20
UEENEED101A	Use computer applications relevant to a workplace	20
UEENEEE009B	Comply with scheduled and preventative maintenance program processes	20
UEENEEE020B	Provide basic instruction in the use of electrotechnology apparatus	20
	Imported units from other training packages and/or	Up to 260

	<p>state accredited courses can be added to this group, but they must be selected from qualifications where the unit is first packaged at AQF level 5. If units have not being assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.</p> <p>Note: For further information see Application of the NQC Flexibility Formula, UEE11 Electrotechnology Training Package, Version 1, Volume 1 Qualification Framework</p>	<p>points</p>
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Group B – Qualification Elective Units		Weighting Points
You may complete units to a maximum weighting of 100		
UEENEED104A	Use engineering applications software on personal computers	40
UEENEEG171A	Install, set up and commission interval metering	20
UEENEEH102A	Repairs basic electronic apparatus faults by replacement of components	40
UEENEEH111A	Troubleshoot single phase input d.c. power supplies	40
UEENEEL116A	Assemble, enter and verify operating instructions in microprocessor equipped devices	20
UEENEEL150A	Develop, enter and verify discrete control programs for programmable controllers	60
UEENEEL124A	Solve basic problems in micro hydro systems	20
UEENEEL125A	Solve basic problems in photovoltaic energy apparatus and systems	20
UEENEEL127A	Diagnose and rectify faults in renewable energy control systems	60
UEENEEL128A	Solve problems in stand-alone renewable energy systems	60
UEENEEL130A	Solve problems in wind energy conversion systems rated up to 10 kW	60
UEENEEL134A	Install ELV stand-alone photovoltaic power systems	60
UEENEEL136A	Install, configure and commission LV micro-hydro systems rated up to 6.4 kW	20
UEENEEL137A	Install, set up and maintain ELV micro-hydro systems rated up to 6.4 kW	20
UEENEEL143A	Install small wind energy conversion systems rated up to 10 kW for ELV stand-alone applications	20
UEENEEL144A	Install, configure and commission LV wind energy conversion systems rated up to 10 kW	40

UEENEEK148A	Install, configure and commission LV grid connected photovoltaic power systems	40
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Group C – Qualification Elective Units		Weighting Points
You may complete units to a maximum weighting of 240		
UEENEEC004B	Prepare specifications for the supply of materials and equipment for electrotechnology projects	40
UEENEEC005B	Estimate electrotechnology projects	40
UEENEEG175A	Develop compliance policies and plans to conduct a electrical contracting business	80
UEENEEK135A	Design grid connected photovoltaic power supply systems	60
UEENEEK145A	Implement and monitor energy sector environmental and sustainable policies and procedures	20
UEENEEK152A	Develop strategies to address sustainability issues for electrical installations	20
UEENEEK153A	Assess energy loads and uses for energy efficiency in residential, office and retail premises	40
UEENEEK154A	Assess energy loads and uses for energy efficiency in commercial facilities	40
UEENEEK155A	Assess energy loads and uses for energy efficiency in industrial properties and enterprises	40

Group D – Qualification Elective Units		Weighting Points
You must complete units to a minimum weighting of 260 to a maximum of 340		
UEENEEC006B	Prepare tender submissions for electrotechnology projects	60
UEENEEG131A	Evaluate performance of low voltage electrical apparatus	40
UEENEEK129A	Design renewable energy (RE) heating systems	120

UEENEEK131A	Design wind energy conversion systems (WECS) rated to 10 kW	60
UEENEEK138A	Design micro-hydro systems rated to 6.4 kW	60

Note:

1. Prerequisite pathways shall be identified and met for all elective units selected.
2. In selecting elective units considerations to career planning advice should be given to units that form part of a prerequisite pathway for the progression to achieve particular competencies or qualification at a higher level.
3. Registered training organisations shall provide competency development advice in relation to any licensing requirements to practice that apply, or can contribute towards the qualification requirement, prior to establishing the competency development plan.

END OF QUALIFICATION**Custom Content Section**

Not applicable.