



**Australian Government**

**UEE62011 Advanced Diploma of  
Engineering Technology - Renewable  
Energy**

**Release: 2**

# UEE62011 Advanced Diploma of Engineering Technology - Renewable Energy

## Modification History

Release	Action	Core/Elective	Details	Points
2	Edit		Edit Name to reflect correct Unit title UEENEED104A Use engineering applications software on personal computers	40

## Description

### Scope

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

## 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 900 points in accordance with the Elective Competency Standard Units table below.

<b>Core Competency Standard Units</b>		<b>Weighting Points</b>
All Core competency standard units to be achieved		
UEENEED104A	Use engineering applications software on personal computers	40
UEENEEE015B	Develop design briefs for electrotechnology projects	40
UEENEEE074B	Write specifications for renewable energy engineering projects	40
UEENEEE080A	Apply industry and community standards to professional engineering activities	20
UEENEEE081A	Apply material science to solving electrotechnology engineering problems	60
UEENEEE082A	Apply physics to solving electrotechnology engineering problems	60
UEENEEE101A	Apply Occupational Health Safety regulations, codes and practices in the workplace	20
UEENEEE102A	Fabricate, dismantle, assemble of 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
UEENEEE108A	Lay wiring/cabbling and terminate accessories for ELV circuits	40
UEENEEE117A	Implement and monitor energy sector OHS policies and	20

	procedures	
UEENEEE124A	Compile and produce an energy sector detailed report	60
UEENEEE125A	Provide solutions to complex multiple path circuits problems	60
UEENEEE126A	Provide solutions to basic engineering computational problems	60
UEENEEE137A	Document and apply measures to control OHS risks associated with electrotechnology work	20
UEENEEG101A	Solve problems in electromagnetic devices and related circuits	60
UEENEEG102A	Solve problems in low voltage a.c. circuits	80
UEENEEG149A	Provide engineering solutions to problems in complex polyphase power circuits	60
UEENEEK121A	Manage renewable energy (RE) projects	40
UEENEEK122A	Plan renewable energy (RE) projects	60
UEENEEK123A	Carry out basic repairs to renewable energy apparatus	80
UEENEEK125A	Solve basic problems in photovoltaic energy apparatus and systems	20
UEENEEK127A	Diagnose and rectify faults in renewable energy control systems	60
UEENEEK128A	Solve problems in stand-alone renewable energy apparatus and systems	60
UEENEEK132A	Develop strategies to address environmental and sustainability issues in the energy sector	20
<b>Total points in core</b>		<b>1260</b>

### Elective Competency Standard Units

Complete Elective units to achieve a total of weighting of 900 points from the following groups:

Group	Minimum points	Maximum points
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<b>A</b>	<b>Imported and Common Elective Units</b> 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 6. If units have not being assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0	360
<b>B</b>	<b>Qualification Elective Units</b>	0	240
<b>C</b>	<b>Qualification Elective Units</b>	0	220
<b>D</b>	<b>Qualification Elective Units</b>	0	220
<b>E</b>	<b>Qualification Elective Units</b> You may select all your elective units from this Group	280	320

<b>Group A – Imported and Common Elective Units</b>		<b>Weighting Points</b>
You may complete units to a maximum weighting of 360		
BSBINM501A	Manage an information or knowledge management system	50
BSBINN502A	Build and sustain an innovative work environment	50
BSBMGT502B	Manage people performance	70
BSBMGT516C	Facilitate continuous improvement	60
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
UEENEEE020B	Provide basic instruction in the use of electrotechnology apparatus	20

	<p>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 6. 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>Up to 360 points</p>
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<b>Group B – Qualification Elective Units</b>		<b>Weighting Points</b>
You may complete units to a maximum weighting of 240		
UEENEEE190A	Prepare engineering drawings using manual drafting and CAD for electrotechnology/utilities applications	60
UEENEEE191A	Prepare electrotechnology/utilities drawings using manual drafting and CAD equipment and software	60
UEENEEI150A	Develop, enter and verify discrete control programs for programmable controllers	60
UEENEEK107A	Conduct checks in the demand side use of remote area power supplies (RAPS)	40
UEENEEK108A	Plan periodic maintenance schedules of remote area power supplies (RAPS)	40
UEENEEK109A	Attend to breakdowns in remote area power supplies (RAPS)	20
UEENEEK117A	Maintain and repair facilities associated with remote area essential services	120
UEENEEK120A	Maintain operation of remote area power generation plant	120
UEENEEK124A	Solve basic problems in micro hydro systems	20
UEENEEK130A	Solve problems in wind energy conversion apparatus and systems	60
UEENEEK134A	Install standalone extra low voltage photovoltaic power systems	60
UEENEEK137A	Install, set up and maintain ELV micro-hydro systems rated up to 6.4 kW	20
UEENEEK143A	Install wind energy conversion systems rated to 10 kW for ELV stand-alone applications	20
UEENEEK149A	Verify compliance and functionality of a renewable energy installations	40
UEENEEP024A	Attach cords and plugs to electrical equipment for connection to a single phase 230 Volt supply	20

UEENEEP025A	Attach cords, cables and plugs to electrical equipment for connection to 1000 Va.c. or 1500 Vd.c. supply	20
UEENEEP026A	Conduct in-service safety testing of electrical cord assemblies and cord connected appliances/equipment	20

<b>Group C – Qualification Elective Units</b>		<b>Weighting Points</b>
You may complete units to a maximum weighting of 220		
UEENEEC004B	Prepare specifications for the supply of equipment and materials for electrotechnology projects	40
UEENEEC005B	Estimate electrotechnology projects	40
UEENEEE114A	Supervise and coordinate utilities /electrotechnology work activities	40
UEENEEE192A	Produce detailed electrotechnology/utilities drawings using computer aided design equipment and software	60
UEENEEI151A	Develop, enter and verify programs for industrial control systems using high level instructions	60
UEENEEI152A	Develop, enter and verify programs in Supervisory Control and Data Acquisition systems	60
UEENEEK110A	Coordinate maintenance of renewable energy (RE) apparatus and systems	20
UEENEEK135A	Design photovoltaic grid connected power supply systems	60

<b>Group D – Qualification Elective Units</b>		<b>Weighting Points</b>
You may complete units to a maximum weighting of 220		
UEENEEG180A	Develop detailed and complex drawings for electrical systems using CAD systems	60
UEENEEK129A	Design renewable energy (RE) heating systems	120
UEENEEK131A	Design wind energy conversion systems (WECS) rated to 10 kW.	60
UEENEEK138A	Design micro-hydro power systems	60



<b>Group E – Qualification Elective Units</b>		<b>Weighting Points</b>
You must complete units to a minimum weighting of 280 to a maximum of 320		
UEENEEK133A	Design hybrid renewable power systems	80
UEENEEK139A	Design stand-alone renewable energy power systems	40
UEENEEK140A	Develop engineering solutions to renewable energy problems	60
UEENEEK146A	Design energy management controls systems for electrical installations in buildings	80
UEENEEK151A	Develop engineering strategies for energy reduction in buildings	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 also provide information related to the relevant pathway(s) that may be taken to achieve paraprofessional status ("associate membership") with a professional engineering membership organisation.

**END OF QUALIFICATION****Custom Content Section**

Not applicable.