Australian Government

Department of Education, Employment and Workplace Relations

UEE50711 Diploma of Renewable Energy Engineering

Release: 1

UEE50711 Diploma of Renewable Energy Engineering

Modification History

Not applicable.

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 All Core competency standard units to be achieved		**Weighting Points**
UEENEEE038B	Participate in development and follow a personal competency development plan	20
UEENEEE074B	Write specifications for renewable energy projects	40
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
UEENEEE117A	Implement and monitor OHS energy sector procedures and policies	20
UEENEEE124A	Compile and produce an energy sector 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	60

	voltage electrical apparatus and circuits	
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 energy sector strategies to address environmental and sustainability issues	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**

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 You may complete units to a maximum weighting of 260		**Weighting Points**
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 basic computer applications relevant to a energy sector 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 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. Note: For further information see Application of the NQC Flexibility Formula, UEE11 Electrotechnology Training Package, Version 1, Volume 1 Qualification Framework	Up to 260 points

Group B – Qualification Elective Units You may complete units to a maximum weighting of 100		**Weighting Points**
UEENEED104A	Use engineering applications software on personal computers	40
UEENEEG171A	Install, set up and commission interval metering	20
UEENEEH102A	Repair basic electronic apparatus faults by replacement of components	40
UEENEEH111A	Troubleshoot single phase input d.c. power supplies	40
UEENEEI116A	Enter and verify operating instructions in microprocessor equipped devices	20
UEENEEI150A	Develop, enter and verify discrete control programs for programmable controllers	60
UEENEEK124A	Solve basic problems in micro hydro systems	20
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
UEENEEK130A	Solve problems in wind energy conversion apparatus and systems	60
UEENEEK134A	Install standalone extra low voltage photovoltaic power systems	60
UEENEEK136A	Install, configure and commission LV micro-hydro systems rated up to 6.4 kW	20
UEENEEK137A	Install and set up micro-hydro power systems	20
UEENEEK143A	Install wind energy conversion systems rated to 10 kW for ELV stand-alone applications	20
UEENEEK144A	Install, configure and commission LV wind energy conversion systems rated to 10 kW	40

UEENEEK148A	Install, configure and commission photovoltaic grid connected power systems	40

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

Group D – Qualification Elective Units You must complete units to a minimum weighting of 260 to a maximum of 340		**Weighting Points**
UEENEEC006B	Prepare tender submissions for electrotechnology projects	60
UEENEEG131A	Evaluate performance of LV 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 power systems	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.