



**Australian Government**

# **UEP40512 Certificate IV in ESI Generation Maintenance - Electrical Electronics**

**Release: 3**

## UEP40512 Certificate IV in ESI Generation Maintenance - Electrical Electronics

### Modification History

Release	Action	Core/Elective	Details	Points
3	Edit	Group C	Correct weighting points of UEPOPS439B – Plan and organise work	30

### Description

**Scope:** This qualification provides competencies to manufacture, fit, assemble, erect, operate, test, fault find, alter, repair electrical equipment, electronic, instrumentation systems, and includes electrical wiring work only if that work is associated with assembling, maintaining, terminating or altering the wiring between electrical components within a power generating plant or machinery, maintenance planning and scheduling and supervision of others and coordination of work activities of individuals and/or teams.

Electrical equipment means any appliance, article, accessory, wire, fitting, cable, conduit or apparatus that generates, uses, conveys or controls (or that is intended to generate, use, convey or control) electricity above extra low voltage.

This qualification does not authorise the holder to install any electrical wiring systems within an electrical installation as prescribed by definitions contained in AS/NZS 3000.

### 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 460 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		
UEENEEE101 A	Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
UEENEEE102 A	Fabricate, dismantle, assemble utilities components	40
UEENEEE104 A	Solve problems in d.c. circuits	80
UEENEEE105 A	Fix and secure electrotechnology equipment	20
UEENEEE107 A	Use drawings, diagrams, schedules, standards, codes and specifications	40
UEENEEE117 A	Implement and monitor energy sector OHS policies and procedures	20
UEENEEE137 A	Document and apply measures to control OHS risks associated with electrotechnology work	20
UEENEEG006 A	Solve problems in single and three phase low voltage machines	80
UEENEEG033 A	Solve problems in single and three phase low voltage electrical apparatus and circuits	60
UEENEEG063 A	Arrange circuits, control and protection for general electrical installations	40
UEENEEG101 A	Solve problems in electromagnetic devices and related circuits	60

UEENEEG102 A	Solve problems in low voltage a.c circuits	80
UEENEEG106 A	Terminate cables, cords and accessories for low voltage circuits	40
UEENEEG108 A	Trouble-shoot and repair faults in low voltage electrical apparatus and circuits	40
UEENEEG109 A	Develop and connect electrical control circuits	80
UEPOPS338B	Facilitate Effective Workplace Communications	20
UEPOPS371A	Carry out operational checks on in-service electrical plant	40
UEPOPS417B	Monitor and Implement Environmental Plans and Procedures	20
UEPOPS430B	Control permit to work operations	20
<b>Total points in core</b>		<b>820</b>

### Elective Competency Standard Units

Complete Elective units to achieve a total of weighting of 460 points from the following groups:

Group		Minimum points	Maximum points
<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 4. If units have not being assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0	220
<b>B</b>	<b>Qualification Electives</b> You may select units from this group for qualification completion.	0	220
<b>C</b>	<b>Qualification Electives</b>	240	460

	You may select all your elective units from this Group		
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<b>Group A - Imported and Common Elective Units.</b>		<b>Weighting Points</b>
Complete units to a maximum weighting of 220 points.		
UEENEEC001B	Maintain documentation	20
UEENEEC010B	Deliver a service to customers	20
UEENEEED101A	Use basic computer applications relevant to a energy sector workplace	20
UEENEEED104A	Use software for engineering applications	40
UEENEEEEE124A	Compile and produce an energy sector detailed report	60
BSBCUS401B	Coordinate implementation of customer service strategies	40
BSBINM401A	Implement workplace information system	40
BSBINN301A	Promote Innovation in a team environment	40
BSBLED401A	Develop teams and individuals	40
BSBMGT402A	Implement operational plan	40
BSBMGT403A	Implement continuous improvement	40
BSBWOR401A	Establish effective workplace relationships	50
BSBWOR402A	Promote team effectiveness	50
BSBWOR404B	Develop Work Priorities	40
TAEDEL301A	Provide work skill instruction	40
	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 4. If units have not being assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	Up to 220 points
	Note: For further information see Application of the	

	NQC Flexibility Formula, Page 10, UEP12 ESI Generation Sector Training Package, Part1.1.00	
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<b>Group B Qualification Electives.</b>		<b>Weighting Points</b>
Complete units to a maximum weighting of 220 points.		
UEENEEF102A	Install and maintain cabling for multiple access to telecommunication services	120
UEENEEF105A	Install and modify optical fibre performance data communication cabling	40
UEENEEI101A	Use instrumentation drawings, specifications, standards and equipment manuals	40
UEENEEI107A	Install process instrumentation and tubing and control cabling	20
UEENEEI108A	Install process control apparatus and associated equipment	20
UEPMNT319B	Maintain and Test Fixed Fire Protection Systems	20
UEPMNT345B	Install electronic equipment	40
UEPMNT346B	Maintain electrical equipment	40
UEPMNT347B	Maintain complex electrical equipment	60
UEPMNT348B	Maintain electrical electronic equipment	40
UEPMNT350B	Modify electrical equipment	40
UEPMNT351B	Test and commission electrical equipment	40
UEPMNT352B	Test and commission electronic electrical equipment	40
UEPMNT355B	Install complex electronic/ instrumentation equipment	40
UEPMNT356B	Maintain instrumentation equipment	40
UEPMNT357B	Diagnose and repair faults in instrumentation equipment	60
UEPMNT358B	Modify instrumentation equipment	40
UEPMNT359B	Test and Commission Instrumentation Systems	40
UEPMNT362A	Maintain Wind Turbine Control Systems	60
UEPMNT366A	Maintain power plant inverter systems	60



UEPOPS202B	Apply Quality Systems To Work	20
UEPOPS301B	Conduct Single Energy Source Isolation Procedures for Permit to Work	40
UEPOPS337B	Maintain Quality Systems within the Team	20

<b>Group C Qualification Electives.</b>		<b>Weighting Points</b>
At least 240 points to be achieved from this group. You may select all your elective units from this Group		
UEENEEC005B	Estimate electrotechnology projects	40
UEPMNT410B	Diagnose and Repair Faults in Electronic Equipment	60
UEPMNT411B	Diagnose and Repair Faults in Complex Electrical Equipment	60
UEPMNT412B	Modify Complex Electrical Equipment	60
UEPMNT413B	Modify Electronic Electrical Equipment	60
UEPMNT414B	Test and Commission Complex Electrical Equipment	60
UEPMNT415B	Diagnose and Repair Faults in Complex Refrigeration / Air Conditioning Equipment	60
UEPMNT416B	Overhaul Electrical Generators	80
UEPMNT417B	Inspect Electrical Generators and Diagnose Faults	80
UEPMNT421B	Conduct Technical Inspection of Process Plant and Equipment	60
UEPMNT422B	Conduct Performance Testing on Process Plant and Equipment	60
UEPMNT424B	Monitor Efficiency of Thermal Steam Cycle Power Plant	60
UEPMNT425B	Maintain Complex Instrumentation Equipment	80
UEPMNT426B	Maintain Electronic Instrumentation Equipment	80
UEPMNT427B	Diagnose and Repair Faults in Complex Instrumentation Equipment	80

UEPMNT428B	Modify Complex Instrumentation Equipment	80
UEPMNT429B	Modify Electronic Instrumentation Equipment	80
UEPMNT430B	Test and Commission Complex Instrumentation Equipment	80
UEPMNT431B	Test and Commission Electronic Instrumentation Equipment	80
UEPMNT432B	Write Programs for Control Systems	80
UEPMNT433B	Conduct Routine Generation Electrical Maintenance	60
UEPMNT434A	Diagnose and Repair Faults in Wind Turbine Control Systems	80
UEPMNT436A	Test and Commission Wind Turbine Control Systems	80
UEPMNT440A	Diagnose and repair faults in power plant inverter systems	60
UEPMNT441A	Test and commission power plant inverter systems	60
UEPOPS402B	Conduct Multiple Energy Source Isolation Procedures for procedures for a Permit to Work	40
UEPOPS439B	Plan and Organise Work	30

**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.

END OF QUALIFICATION

## Custom Content Section

Not applicable.