

UEE30211 Certificate III in Computer Systems Equipment

Modification History

Release	Action	Core/Elective	Details	Points
2	Update	Group A	HLTFA311A Apply first aid	10
2	Add		Edit Name to reflect correct Unit title UEENEED104A Use engineering applications software on personal computers	40
4	Update	Elective	HLTAID003 - Provide first aid	10
4	Edit	Core	Correct title of UEENEEK142A - Apply environmentally and sustainable procedures in the energy sector	20

Description

Scope

This qualification provides competencies to select, install, set up, test, fault find, repair and maintain computer equipment for data storage, personal computer and networks, measurement/analysis and control.

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

Core Competency Standard Units All Core competency standard units to be achieved		Weighting Points
UEENEEC014B	Participate in computer equipment work and competency development activities	60
UEENEED102A	Assemble, set-up and test computing devices	80
UEENEED104A	Use engineering applications software on personal computers	40
UEENEED112A	Support computer hardware and software for engineering applications	120
UEENEED143A	Install and configure a client computer operating system and software	40
UEENEED146A	Set up and configure basic local area network (LAN)	80
UEENEEE101A	Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
UEENEEE102A	Fabricate, assemble and dismantle utilities industry components	40
UEENEEE103A	Solve problems in ELV single path circuits	40
UEENEEE137A	Document and apply measures to control OHS risks associated with electrotechnology work	20
UEENEEK142A	Apply environmentally and sustainable procedures in the energy sector	20
Total points in core		560

Elective Competency Standard Units

Complete Elective units to achieve a total of weighting of 500 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 3. If units have not being assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0	150
B	Qualification Elective Units You may select all your elective units from this Group	350	500

Group A – Imported and Common Elective Units You may complete units to a maximum weighting of 180		Weighting Points
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
UEENEED009B	Comply with scheduled and preventative maintenance program processes	20
UEENEED020B	Provide basic instruction in the use of electrotechnology apparatus	20
HLTAID003	Provide first aid	10
	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 3. 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 150 points

Group B – Qualification Elective Units		Weighting Points
Complete units to a minimum weighting of 350 You may select all your elective units from this Group		
UEENEEA101A	Assemble electronic components	40
UEENEEA102A	Select electronic components for assembly	20
UEENEEA104A	Modify electronic sub assemblies	40
UEENEEA106A	Use lead-free soldering techniques	40
UEENEEED129A	Develop web pages for engineering applications	40
UEENEEED130A	Select, install, configure and test multimedia components	40
UEENEEED153A	Set up, configure and test biometric devices	40
UEENEEEEE104A	Solve problems in d.c. circuits	80
UEENEEEEE105A	Fix and secure electrotechnology equipment	20
UEENEEEEE107A	Use drawings, diagrams, schedules, standards, codes and specifications	40
UEENEEEEE108A	Lay wiring/cabling and terminate accessories for extra-low voltage (ELV) circuits	40
UEENEEEEE119A	Solve problems in multiple path extra low voltage (ELV) a.c. circuits	40
UEENEEEEE123A	Solve basic problems electronic and digital equipment and circuits	80
UEENEEEEE179A	Identify and select components, accessories and materials for energy sector work activities	20
UEENEEEF102A	Install and maintain cabling for multiple access to telecommunication services	120
UEENEEEF104A	Install and modify performance data communication copper cabling	40
UEENEEEF105A	Install and modify optical fibre performance data communication cabling	40
UEENEEEF107A	Set up and configure the wireless capabilities of communications and data storage devices	40
UEENEEEF108A	Select and arrange equipment for wireless communication networks	40
UEENEEEF109A	Install and connect data and voice communication equipment	40
UEENEEEF110A	Select and arrange data and voice equipment for local area networks	40

UEENEEH101A	Repair basic computer equipment faults by replacement of modules/sub-assemblies	40
UEENEEH102A	Repairs basic electronic apparatus faults by replacement of components	40
UEENEEH103A	Repair routine business equipment faults	120
UEENEEH111A	Troubleshoot single phase input d.c. power supplies	40
UEENEEH112A	Troubleshoot digital sub-systems	80
UEENEEH113A	Troubleshoot amplifiers in an electronic apparatus	80
UEENEEH115A	Develop software solutions for microcontroller based systems	60
UEENEEH139A	Troubleshoot basic amplifier circuits	40
UEENEEH150A	Assemble and set up basic security systems	80
UEENEEH151A	Install large security systems	100
UEENEEH152A	Enter instructions and test wired and wireless security systems	40
UEENEEH166A	Troubleshoot microcontroller based hardware systems	40
UEENEEH169A	Solve problems in basic electronic circuits	100
UEENEEH116A	Assemble, enter and verify operating instructions in microprocessor equipped devices	20

Note:

1. Pre-requisite 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 pre-requisite pathway for the progression to achieve particular competencies or qualification at a higher level.

END OF QUALIFICATION

Custom Content Section

Not applicable.

UEE30311 Certificate III in Custom Electronics Installations

Modification History

Release	Action	Core/Elective	Details	Points
2	Update	Group A	HLTFA311A Apply first aid	10

4	Edit	Elective	Correct weighting points of UEENEED146A - Set up and configure basic local area network (LAN)	40
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5	Update	Elective	HLTAID003 - Provide first aid	10
5	Edit	Core	Correct title of UEENEEK142A - Apply environmentally and sustainable procedures in the energy sector	20
5	Edit	Elective	Correct title of UEENEEH117A - Carry out repairs of predictable faults in video and audio replay/recording apparatus	120
5	Edit	Elective	Correct title of UEENEEH174A - Troubleshoot audio - video recording equipment	120

Description

Scope

This qualification provides competencies to select, install, set up and test surround sound, home theatre and integration aspects for 'intelligent houses'. It covers the scope of CEDIA certification level 2

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.

Core Competency Standard Units		Weighting Points
All Core competency standard units to be achieved		
UEENEEE101A	Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
UEENEEE102A	Fabricate, assemble and dismantle utilities industry components	40
UEENEEE103A	Solve problems in ELV single path circuits	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/cabling and terminate accessories for extra-low voltage (ELV) circuits	40
UEENEEE137A	Document and apply measures to control OHS risks associated with electrotechnology work	20
UEENEEH104A	Set up and test residential video/audio equipment	40
UEENEEH105A	Verify functionality and compliance of custom electronic installations	40
UEENEEH106A	Assemble and set up fixed video/audio components and systems in buildings and premises	120
UEENEEH114A	Troubleshoot resonance circuits in an electronic apparatus	80
UEENEEK142A	Apply environmentally and sustainable procedures in the energy sector	20
Total points in core		600

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
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 3. If units have not being assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0	150
B	Qualification Elective Units You may select all your elective units from this Group	310	460

Group A – Imported and Common Elective Units You may complete units to a maximum weighting of 180		Weighting Points
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
UEENEEED101A	Use computer applications relevant to a workplace	20
UEENEEEEE009B	Comply with scheduled and preventative maintenance program processes	20
UEENEEEEE020B	Provide basic instruction in the use of electrotechnology apparatus	20
HLTAID003	Provide first aid	10
	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 3. 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 150 points

Group B – Qualification Elective Units		Weighting Points
Complete units to a minimum weighting of 310 You may select all your elective units from this Group		
UEENEEA101A	Assemble electronic components	40
UEENEEA106A	Use lead-free soldering techniques	40
UEENEEA102A	Assemble, set-up and test computing devices	80
UEENEEA112A	Support computer hardware and software for engineering applications	120
UEENEEA130A	Select, install, configure and test multimedia components	40
UEENEEA143A	Install and configure a client computer operating system and software	40
UEENEEA146A	Set up and configure basic local area network (LAN)	40
UEENEEA121A	Plan an integrated cabling installation system	40
UEENEEA123A	Solve basic problems electronic and digital equipment and circuits	80
UEENEEA179A	Identify and select components, accessories and materials for energy sector work activities	20
UEENEEA102A	Install and maintain cabling for multiple access to telecommunication services	120
UEENEEH101A	Repair basic computer equipment faults by replacement of modules/sub-assemblies	40
UEENEEH103A	Repair routine business equipment faults	120
UEENEEH107A	Repair predictable faults in general electronic apparatus	40
UEENEEH108A	Assemble and install reception antennae and signal distribution equipment	60
UEENEEH109A	Set up and test gaming and game equipment	60
UEENEEH110A	Install commercial video/audio system components	120
UEENEEH117A	Carry out repairs of predictable faults in video and audio replay/recording apparatus	120
UEENEEH118A	Fault find and repair electronic apparatus	40
UEENEEH119A	Repair predictable faults in television receivers	120
UEENEEH120A	Fault find and repair gaming and games equipment	80
UEENEEH124A	Repair predictable faults in audio components	40

UEENEEH127A	Set up and adjust commercial radio frequency (RF) transmission and reception systems	60
UEENEEH128A	Install and test microwave antennae and waveguides	60
UEENEEH150A	Assemble and set up basic security systems	80
UEENEEH151A	Install large security systems	100
UEENEEH152A	Enter instructions and test wired and wireless security systems	40
UEENEEH169A	Solve problems in basic electronic circuits	100
UEENEEH171A	Troubleshoot faults in television receivers	120
UEENEEH172A	Troubleshoot communication systems	80
UEENEEH173A	Troubleshoot professional audio reproduction components	120
UEENEEH174A	Troubleshoot audio - video recording equipment	120
UEENEEI116A	Assemble, enter and verify operating instructions in microprocessor equipped devices	20
UETTDRIS43A	Perform low voltage field switching operation to a given schedule	80
UETTDRIS44A	Perform HV field switching operation to a given schedule	80
UETTDRIS47A	Sample, test, filter and reinstate insulating oil	40
UETTDRIS67A	Solve problems in energy supply network equipment	80
UETTDRIS68A	Solve problems in energy supply network protection equipment and systems	40
UETTDRSB39A	Perform power system substation switching operation to a given schedule	50

Note:

1. Pre-requisite 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 pre-requisite pathway for the progression to achieve particular competencies or qualification at a higher level.

END OF QUALIFICATION

Custom Content Section

Not applicable.

UEE30411 Certificate III in Data and Voice Communications

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
2	Update	Group A	HLTCPR211A Perform CPR	10
2	Update	Group A	HLTFA311A Apply first aid	10

4	Edit	Elective	Correct weighting points of UEENEED146A - Set up and configure basic local area network (LAN)	40
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5	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
5	Update	Elective	HLTAID003 - Provide first aid	10
5	Edit	Core	Correct title of UEENEEE101A - Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
5	Edit	Core	Correct title of UEENEEE102A - Fabricate, assemble and dismantle utilities industry components	40
5	Edit	Core	Correct title of UEENEEE108A - Lay wiring/cabling and terminate accessories for extra-low voltage (ELV) circuits	40
5	Edit	Core	Correct title of UEENEEK142A - Apply environmentally and sustainable procedures in the energy sector	20
5	Edit	Elective	Correct title of UEENEED101A - Use computer applications relevant to a workplace	20
5	Edit	Elective	Correct title of UEENEED102A - Assemble, set-up and test computing devices	80
5	Edit	Elective	Correct title of UEENEEE121A - Plan an integrated cabling installation system	40

Description

Scope

This qualification provides competencies to select, install, set up, test, fault find, repair and maintain telecommunications and high performance data services in buildings and premises. It includes ACMA requirements for Open Cabler Registration.

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

Core Competency Standard Units All Core competency standard units to be achieved		Weighting Points
UEENEEC016B	Participate in voice and data communications work and competency development activities	60
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
UEENEEE108A	Lay wiring/cablings and terminate accessories for extra-low voltage (ELV) circuits	40
UEENEEE137A	Document and apply measures to control OHS risks associated with electrotechnology work	20
UEENEEF102A	Install and maintain cabling for multiple access to telecommunication services	120
UEENEEF104A	Install and modify performance data communication copper cabling	40
UEENEEF105A	Install and modify optical fibre performance data communication cabling	40
UEENEEF109A	Install and connect data and voice communication equipment	40
UEENEEF110A	Select and arrange data and voice equipment for local area networks	40
UEENEEF111A	Test, report and rectify faults in data and voice installations	40
UEENEEH114A	Troubleshoot resonance circuits in an electronic apparatus	80

Core Competency Standard Units All Core competency standard units to be achieved		Weighting Points
UEENEEK142A	Apply environmentally and sustainable procedures in the energy sector	20
Total points in core		740

Elective Competency Standard Units Complete Elective units to achieve a total of weighting of 320 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 3. If units have not been assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0	100
B	Qualification Elective Units You may select all your elective units from this Group	220	320

Group A – Imported and Common Elective Units You may complete units to a maximum weighting of 100		Weighting Points
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
CPCCOHS1001A	Work safely in the construction industry	10
HLTAID001	Provide cardiopulmonary resuscitation	10

HLTAID003	Provide first aid	10
	<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 3. 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>	Up to 100 points

Group B – Qualification Elective Units		Weighting Points
Complete units to a minimum weighting of 220 You may select all your elective units from this Group		
UEENEED102A	Assemble, set-up and test computing devices	80
UEENEED104A	Use engineering applications software on personal computers	40
UEENEED146A	Set up and configure basic local area network (LAN)	40
UEENEEE121A	Plan an integrated cabling installation system	40
UEENEED107A	Set up and configure the wireless capabilities of communications and data storage devices	40
UEENEED108A	Select and arrange equipment for wireless communication networks	40
UEENEED112A	Install aerial telecommunication cables	40
UEENEED113A	Install underground communication cables	40
UEENEED114A	Set up and configure basic data communication systems	40
UEENEED115A	Assemble and connect telecommunication frames and cabinets	60
UEENEEI140A	Plan the electrical installation of integrated systems	20
UEENEEI141A	Develop electrical integrated systems	20

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.

UEE30611 Certificate III in Electrical Machine Repair

Modification History

Release	Action	Core/Elective	Details	Points
2	Update	Group A	HLTCPR211A Perform CPR	10
2	Update	Group A	HLTFA311A Apply first aid	10
2	Edit		Edit Name to reflect correct Unit title UEENEEED104A Use engineering applications software on personal computers	40

4	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
4	Update	Elective	HLTAID003 - Provide first aid	10
4	Edit	Core	Correct title of UEENEEEE101A - Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
4	Edit	Core	Correct title of UEENEEEE102A - Fabricate, assemble and dismantle utilities industry components	40
4	Edit	Core	Correct title of UEENEEEG111A - Carry out basic repairs to electrical components and equipment	40
4	Edit	Core	Correct title of UEENEEEG153A - Rewind three phase low voltage induction machines	60
4	Edit	Core	Correct title of UEENEEEG164A - Repair and maintain mechanical components of electrical machines	40
4	Edit	Core	Correct title of UEENEEK142A - Apply environmentally and sustainable procedures in the energy sector	20
4	Edit	Core	Correct title of UEENEEEP015A - Disconnect - reconnect motors connected to low voltage installation wiring	60
4	Edit	Elective	Correct title of UEENEEEG129A - Overhaul and repair major switchgear and controlgear	60
4	Edit	Elective	Correct title of UEENEEEG159A - Conduct mechanical tests on electrical machines and components	40
4	Edit	Elective	Correct title of UEENEEED101A - Use computer	20

			applications relevant to a workplace	
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Description

Scope

This qualification provides competencies to overhaul and repair motor, transformer and control gear including rewinding

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

Core Competency Standard Units All Core competency standard units to be achieved		Weighting Points
UEENEEC018B	Participate in electrical machine repair work and competency development activities	60
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
UEENEEE137A	Document and apply measures to control OHS risks associated with electrotechnology work	20
UEENEEO006A	Solve problems in single and three phase low voltage machines	80
UEENEEO101A	Solve problems in electromagnetic devices and related circuits	60
UEENEEO102A	Solve problems in low voltage a.c. circuits	80
UEENEEO106A	Terminate cables, cords and accessories for low voltage circuits	40
UEENEEO111A	Carry out basic repairs to electrical components and equipment	40
UEENEEO150A	Wind electrical coils	40
UEENEEO151A	Place and connect electrical coils	40
UEENEEO153A	Rewind three phase low voltage induction machines	60
UEENEEO157A	Conduct electrical tests on LV electrical machines	40
UEENEEO164A	Repair and maintain mechanical components of	40

	electrical machines	
UEENEEK142A	Apply environmentally and sustainable procedures in the energy sector	20
UEENEOP015A	Disconnect - reconnect motors connected to low voltage installation wiring	60
Total points in core		880

Elective Competency Standard Units

Complete Elective units to achieve a total of weighting of 180 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 3. If units have not been assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0	60
B	Qualification Elective Units You may select all your elective units from this Group	120	180

Group A – Imported and Common Elective Units

You may complete units to a maximum weighting of 60

		Weighting Points
UEENEOP001B	Maintain documentation	20
UEENEOP002B	Source and purchase material/parts for installation or service jobs	20
UEENEOP003B	Provide quotations for installation or service jobs	20
UEENEOP010B	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
CPCCOHS1001A	Work safely in the construction industry	10

HLTAID001	Provide cardiopulmonary resuscitation	10
HLTAID003	Provide first aid	10
	<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 3. 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>	Up to 60 points

Group B – Qualification Elective Units		Weighting Points
Complete units to a minimum weighting of 120 You may select all your elective units from this Group		
UEENEED104A	Use engineering applications software on personal computers	40
UEENEEG129A	Overhaul and repair major switchgear and controlgear	60
UEENEEG152A	Rewind single phase machines	40
UEENEEG154A	Rewind LV direct current machines	60
UEENEEG159A	Conduct mechanical tests on electrical machines and components	40
UEENEEI150A	Develop, enter and verify discrete control programs for programmable controllers	60
UEENEEJ151A	Service small electrical appliances and power tools	60
UEENEED020A	Locate and rectify faults in low voltage motors using set procedures	20
UEENEED024A	Attach cords and plugs to electrical equipment for connection to a single phase 230 Volt supply	20
UEENEED025A	Attach cords, cables and plugs to electrical equipment for connection to 1000 Va.c. or 1500 Vd.c. supply	20

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.

UEE30711 Certificate III in Switchgear and Controlgear

Modification History

Release	Action	Core/Elective	Details	Points
2	Update	Group A	HLTCPR211A Perform CPR	10
2	Update	Group A	HLTFA311A Apply first aid	10
2	Edit		Edit Name to reflect correct Unit title UEENEEED104A Use engineering applications software on personal computers	40

4	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
4	Update	Elective	HLTAID003 - Provide first aid	10
4	Edit	Core	Correct title of UEENEEEE101A - Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
4	Edit	Core	Correct title of UEENEEEE102A - Fabricate, assemble and dismantle utilities industry components	40
4	Edit	Core	Correct title of UEENEEEG111A - Carry out basic repairs to electrical components and equipment	40
4	Edit	Core	Correct title of UEENEEK142A - Apply environmentally and sustainable procedures in the energy sector	20
4	Edit	Core	Correct title of UEENEEP013A - Disconnect - reconnect control devices connected to low voltage installation wiring	60
4	Edit	Elective	Correct title of UEENEEED101A - Use computer applications relevant to a workplace	20
4	Edit	Elective	Correct title of UEENEEEG164A - Repair and maintain mechanical components of electrical machines	60
4	Edit	Elective	Correct title of UEENEEEH102A - Repairs basic electronic apparatus faults by replacement of components	40
4	Edit	Elective	Correct title of UEENEEEH111A - Troubleshoot single phase input d.c. power supplies	40
4	Edit	Elective	Correct title of UEENEEEI116A - Assemble, enter	20

			and verify operating instructions in microprocessor equipped devices	
4	Edit	Elective	Correct title of UEENEEG129A - Overhaul and repair major switchgear and controlgear	60

Description

Scope

This qualification provides competencies to construction, assembly and wiring of switchboards and control panels.

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

Core Competency Standard Units All Core competency standard units to be achieved		Weighting Points
UEENEEA110A	Assemble, mount and connect control gear and switchgear	40
UEENEEA112A	Fabricate and assemble bus bars	40
UEENEEA113A	Mount and wire control panel equipment	40
UEENEEC019B	Participate in switchgear and controlgear work and competency development activities	60
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
UEENEEG106A	Terminate cables, cords and accessories for low voltage circuits	40
UEENEEE107A	Use drawings, diagrams, schedules, standards, codes and specifications	40
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
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
UEENEEG109A	Develop and connect electrical control circuits	80
UEENEEG111A	Carry out basic repairs to electrical components and	40

	equipment	
UEENEEK142A	Apply environmentally and sustainable procedures in the energy sector	20
UEENEEP013A	Disconnect - reconnect control devices connected to low voltage installation wiring	60
Total points in core		900

Elective Competency Standard Units

Complete Elective units to achieve a total of weighting of 160 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 3. If units have not been assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0	60
B	Qualification Elective Units You may select all your elective units from this Group	100	160

Group A – Imported and Common Elective Units

You may complete units to a maximum weighting of 60

		Weighting Points
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
CPCCOHS1001A	Work safely in the construction industry	10

HLTAID001	Provide cardiopulmonary resuscitation	10
HLTAID003	Provide first aid	10
	<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 3. 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>	Up to 60 points

Group B – Qualification Elective Units		Weighting Points
Complete units to a minimum weighting of 100 You may select all your elective units from this Group		
UEENEED104A	Use engineering applications software on personal computers	40
UEENEED115A	Assemble and connect telecommunication frames and cabinets	60
UEENEED129A	Overhaul and repair major switchgear and controlgear	60
UEENEED164A	Repair and maintain mechanical components of electrical machines	40
UEENEED102A	Repairs basic electronic apparatus faults by replacement of components	40
UEENEED111A	Troubleshoot single phase input d.c. power supplies	40
UEENEED116A	Assemble, enter and verify operating instructions in microprocessor equipped devices	20
UEENEED150A	Develop, enter and verify discrete control programs for programmable controllers	60
UEENEED018A	Locate and rectify faults in low voltage control devices using set procedures	20

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.

UEE30811 Certificate III in Electrotechnology Electrician

Modification History

Release	Action	Core/Elective	Details	Points
2	Update	Group A	HLTCPR211A Perform CPR	10
2	Update	Group A	HLTFA311A Apply first aid	10
2	Edit		Edit Name to reflect correct Unit title UEENEED104A Use engineering applications software on personal computers	40
2	Add	Group B	UEENEEJ105A Position, assemble and start up single head split air conditioning and water heating heat pump systems	70
2	Add	Group B	UEENEEJ172A Recover, pressure test, evacuate, charge and leak test refrigerants — split systems	60
2	Add	Group B	UETTDRIS67A Solve problems in energy supply network equipment	80
2	Add	Group B	UETTDRIS68A Solve problems in energy supply network protection equipment and systems	40
2	Add	Group B	UETTDRIS44A Perform HV field switching operation to a given schedule	60

3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI102A Solve problems in pressure measurement components and systems	40
3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI103A Solve problems in density_level measurement components and systems	40
3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI104A Solve problems in flow measurement components and systems	40
3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI105A Solve problems in temperature measurement components and systems	40

4	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
4	Update	Elective	HLTAID003 - Provide first aid	10

4	Edit	Core	Correct title of UEENEEE101A - Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
4	Edit	Core	Correct title of UEENEEE102A - Fabricate, assemble and dismantle utilities industry components	40
4	Edit	Core	Correct title of UEENEEK142A - Apply environmentally and sustainable procedures in the energy sector	20
4	Edit	Elective	Correct title of UEENEEED101A - Use computer applications relevant to a workplace	20
4	Edit	Elective	Correct title of UEENEEE121A - Plan an integrated cabling installation system	40
4	Edit	Elective	Correct title of UEENEEG111A - Carry out basic repairs to electrical components and equipment	60
4	Edit	Elective	Correct title of UEENEEG113A - Install and maintain emergency safety systems	60
4	Edit	Elective	Correct title of UEENEEG116A - Diagnose and rectify faults in traction lift systems	60
4	Edit	Elective	Correct title of UEENEEG119A - Maintain operation of electrical marine equipment and systems	60
4	Edit	Elective	Correct title of UEENEEG120A - Select and arrange equipment for special LV electrical installations	60
4	Edit	Elective	Correct title of UEENEEG126A - Install and maintain field power and distribution systems with a low voltage demand up to 200 A per phase	40
4	Edit	Elective	Correct title of UEENEEG129A - Overhaul and repair major switchgear and controlgear	60
4	Edit	Elective	Correct title of UEENEEG153A - Rewind three phase low voltage induction machines	60
4	Edit	Elective	Correct title of UEENEEG159A - Conduct mechanical tests on electrical machines and components	40
4	Edit	Elective	Correct title of UEENEEG164A - Repair and maintain mechanical components of electrical machines	60
4	Edit	Elective	Correct title of UEENEEG165A - Maintain and service traction lifts systems and equipment	40
4	Edit	Elective	Correct title of UEENEEG166A - Install and maintain escalators, moving walks and treadways	40
4	Edit	Elective	Correct title of UEENEEG167A - Align and install traction lift equipment	20

4	Edit	Elective	Correct title of UEENEEH102A - Repairs basic electronic apparatus faults by replacement of components	40
4	Edit	Elective	Correct title of UEENEEH150A - Assemble and set up basic security systems	80
4	Edit	Elective	Correct title of UEENEEI101A - Use instrumentation drawings, specification, standards and equipment manuals	40
4	Edit	Elective	Correct title of UEENEEI103A - Solve problems in density/level measurement components and systems	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 UEENEEK148A - Install, configure and commission LV grid connected photovoltaic power systems	40
4	Edit	Elective	Correct title of UEENEEN104A - Test copper rail signalling cables	20
4	Edit	Elective	Correct title of UETTDRIS43A - Perform low voltage field switching operation to a given schedule	50

Description

Scope

This qualification provides competencies to select, install, set up, test, fault find, repair and maintain electrical systems and equipment in building and premises. It includes ERAC requirements for an 'Electrician's licence'.

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

Core Competency Standard Units All Core competency standard units to be achieved		Weighting Points
UEENEEC020B	Participate in electrical work and competency development activities	60
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
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

Core Competency Standard Units All Core competency standard units to be achieved		Weighting Points
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
UEENEEK142A	Apply environmentally and sustainable procedures in the energy sector	20
Total points in core		920

Elective Competency Standard Units Complete Elective units to achieve a total of weighting of 140 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 3. If units have not been assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0
B	Qualification Elective Units You may select all your elective units from this Group	80

Group A – Imported and Common Elective Units You may complete units to a maximum weighting of 60		Weighting Points
UEENEED001B	Maintain documentation	20
UEENEED002B	Source and purchase material/parts for installation or service jobs	20
UEENEED003B	Provide quotations for installation or service jobs	20
UEENEED010B	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
CPCCOHS1001A	Work safely in the construction industry	10
HLTAID001	Provide cardiopulmonary resuscitation	10
HLTAID003	Provide first aid	10
	<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 3. 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>	Up to 60 points

Group B – Qualification Elective Units Complete units to a minimum weighting of 80 You may select all your elective units from this Group		Weighting Points
UEENEEA110A	Assemble, mount and connect control gear and switchgear	40
UEENEEA112A	Fabricate and assemble bus bars	40
UEENEEA113A	Mount and wire control panel equipment	40
UEENEEED104A	Use engineering applications software on personal computers	40
UEENEEEE121A	Plan an integrated cabling installation system	40
UEENEEEF102A	Install and maintain cabling for multiple access to telecommunication services	120
UEENEEEF104A	Install and modify performance data communication copper cabling	40
UEENEEEG110A	Find and repair faults in LV d.c. electrical apparatus and circuits	60
UEENEEEG111A	Carry out basic repairs to electrical components and equipment	40
UEENEEEG113A	Install and maintain emergency safety systems	60
UEENEEEG116A	Diagnose and rectify faults in traction lift systems	80
UEENEEEG118A	Maintain operation of electrical mining equipment and systems	60
UEENEEEG119A	Maintain operation of electrical marine equipment and systems	60
UEENEEEG120A	Select and arrange equipment for special LV electrical installations	60
UEENEEEG126A	Install and maintain field power and distribution systems with a low voltage demand up to 200 A per phase	40
UEENEEEG129A	Overhaul and repair major switchgear and controlgear	60
UEENEEEG150A	Wind electrical coils	40
UEENEEEG151A	Place and connect electrical coils	40
UEENEEEG152A	Rewind single phase machines	40
UEENEEEG153A	Rewind three phase low voltage induction machines	60
UEENEEEG154A	Rewind LV direct current machines	60

UEENEEG157A	Conduct electrical tests on LV electrical machines	40
UEENEEG159A	Conduct mechanical tests on electrical machines and components	40
UEENEEG164A	Repair and maintain mechanical components of electrical machines	40
UEENEEG165A	Maintain and service traction lifts systems and equipment	40
UEENEEG166A	Install and maintain escalators, moving walks and treadways	40
UEENEEG167A	Align and install traction lift equipment	20
UEENEEG171A	Install, set up and commission interval metering	20
UEENEEG181A	Provide advice on effective and energy efficient lighting products	20
UEENEEG182A	Supply effective and efficient lighting products for domestic and small commercial applications	40
UEENEEG183A	Provide advice on the application of energy efficient lighting for ambient and aesthetic effect	20
UEENEEG189A	Install and maintain emergency lighting systems	40
UEENEEH102A	Repairs basic electronic apparatus faults by replacement of components	40
UEENEEH111A	Troubleshoot single phase input d.c. power supplies	40
UEENEEH150A	Assemble and set up basic security systems	80
UEENEEI140A	Plan the electrical installation of integrated systems	20
UEENEEI141A	Develop electrical integrated systems	20
UEENEEI101A	Use instrumentation drawings, specification, standards and equipment manuals	40
UEENEEI102A	Solve problems in pressure measurement components and systems	40
UEENEEI103A	Solve problems in density/level measurement components and systems	40
UEENEEI104A	Solve problems in flow measurement components and systems	40
UEENEEI105A	Solve problems in temperature measurement components and systems	40
UEENEEI116A	Assemble, enter and verify operating instructions in microprocessor equipped devices	20

UEENEEI150A	Develop, enter and verify discrete control programs for programmable controllers	60
UEENEEJ102A	Prepare and connect refrigerant tubing and fittings	30
UEENEEJ103A	Establish the basic operating conditions of vapour compression systems	60
UEENEEJ104A	Establish the basic operating conditions of air conditioning systems	20
UEENEEJ105A	Position, assemble and start up single head split air conditioning and water heating heat pump systems	70
UEENEEJ172A	Recover, pressure test, evacuate, charge and leak test refrigerants — split systems	60
UEENEEK125A	Solve basic problems in photovoltaic energy apparatus and systems	20
UEENEEK148A	Install, configure and commission LV grid connected photovoltaic power systems	40
UEENEEM019A	Attend to breakdowns in hazardous areas — coal mining	20
UEENEEM020A	Attend to breakdowns in hazardous areas — gas atmospheres	20
UEENEEM021A	Attend to breakdowns in hazardous areas — dust atmospheres	20
UEENEEM022A	Attend to breakdowns in hazardous areas — pressurisation	20
UEENEEM023A	Install explosion-protected equipment and wiring systems — coal mining	60
UEENEEM024A	Install explosion-protected equipment and wiring systems — gas atmospheres	60
UEENEEM025A	Install explosion-protected equipment and wiring systems — dust atmospheres	60
UEENEEM026A	Install explosion-protected equipment and wiring systems — pressurisation	60
UEENEEM027A	Maintain equipment in hazardous areas — coal mining	60
UEENEEM028A	Maintain equipment in hazardous areas — gas atmospheres	60
UEENEEM029A	Maintain equipment in hazardous areas — dust atmospheres	60
UEENEEM030A	Maintain equipment in hazardous areas — pressurisation	60

UEENEEM038A	Conduct testing of hazardous areas installations — coal mining	40
UEENEEM039A	Conduct testing of hazardous areas installations — gas atmospheres	40
UEENEEM040A	Conduct testing of hazardous areas installations — dust atmospheres	40
UEENEEM041A	Conduct testing of hazardous area installations — pressurisation	40
UEENEEM042A	Conduct visual inspection of hazardous areas installations	40
UEENEEM076A	Use and maintain the integrity of a portable gas detection device	20
UEENEEM077A	Install and maintain the integrity of fixed gas detection equipment	20
UEENEEM080A	Report on the integrity of explosion-protected equipment in a hazardous area	20
UEENEEN102A	Assemble and wire internal electrical rail signalling equipment	30
UEENEEN103A	Install and maintain rail track circuit leads and bonds	30
UEENEEN104A	Test copper rail signalling cables	20
UEENEEN121A	Repair rail signalling power and control cables	40
UETTDRIS43A	Perform low voltage field switching operation to a given schedule	50
UETTDRIS44A	Perform HV field switching operation to a given schedule	50
UETTDRIS47A	Sample, test, filter and reinstate insulating oil	40
UETTDRIS67A	Solve problems in energy supply network equipment	80
UETTDRIS68A	Solve problems in energy supply network protection equipment and systems	40
UETTDRSB23A	Install and maintain substation direct current systems	30
UETTDRSB29A	Maintain capacitor bank equipment for voltage regulation	40
UETTDRSB39A	Perform power system substation switching operation to a given schedule	50

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.

UEE30911 Certificate III in Electronics and Communications

Modification History

Release	Action	Core/Elective	Details	Points
2	Add	Group B	UEENEED012A Disconnect / reconnect composite appliances connected to low voltage installation wiring	60
2	Add	Group B	UEENEED017A Locate and rectify faults in low voltage composite appliances using set procedures	20
2	Add	Group B	UEENEEI150A Develop, enter and verify discrete control programs for programmable controllers	60
2	Update	Group A	HLTFA311A Apply first aid	10
2	Edit		Edit Name to reflect correct Unit title UEENEED104A Use engineering applications software on personal computers	40
2	Update	Group A	MSS402001A Apply competitive systems and practices	20
2	Update	Group A	MSS402021A Apply Just in Time procedures	20
2	Update	Group A	MSS402080A Undertake root cause analysis	20
2	Update	Group A	MSS402081A Contribute to the application of a proactive maintenance strategy	20
2	Update	Group A	MSS402040A Apply 5S procedures	20
2	Update	Group A	MSS402020A Apply quick changeover procedures	20
3	Remove	Group B	UEENEEH189A Provide Gate Array solutions for complex electronics systems	60
3	Add	Group B	UEENEED010A Disconnect / reconnect appliances connected to low voltage installation wiring.	60
4	Edit	Elective	Correct weighting points of UEENEED146A - Set up and configure basic local area network (LAN)	40
5	Update	Elective	HLTAID003 - Provide first aid	10
5	Edit	Core	Correct title of UEENEEK142A - Apply	20

			environmentally and sustainable procedures in the energy sector	
5	Edit	Elective	Correct title of UEENEEH117A - Carry out repairs of predictable faults in video and audio replay/recording apparatus	120
5	Edit	Elective	Correct title of UEENEEH174A - Troubleshoot audio - video recording equipment	120
5	Edit	Elective	Correct title of UEENEEP010A - Disconnect - reconnect appliances connected to low voltage installation wiring	60
5	Edit	Elective	Correct title of UEENEEP025A - Attach cords, cables and plugs to electrical equipment for connection to 1000 Va.c. or 1500 Vd.c. supply	20

Description

Scope

This qualification provides competencies to select, install, set up, test, fault find, repair and maintain electronic equipment and devices at component/sub-assembly level with options in communications, audio, video and TV, personal computer and networks, security and custom installations

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

Core Competency Standard Units All Core competency standard units to be achieved		Weighting Points
UEENEEC021B	Participate in electronics and communications work and competency development activities	60
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
UEENEEE137A	Document and apply measures to control OHS risks associated with electrotechnology work	20
UEENEEH102A	Repairs basic electronic apparatus faults by replacement of components	40
UEENEEH111A	Troubleshoot single phase input d.c. power supplies	40
UEENEEH112A	Troubleshoot digital sub-systems	80
UEENEEH113A	Troubleshoot amplifiers in an electronic apparatus	80
UEENEEH114A	Troubleshoot resonance circuits in an electronic apparatus	80
UEENEEH138A	Fault find and repair complex power supplies	40
UEENEEH139A	Troubleshoot basic amplifier circuits	40
UEENEEH146A	Solve fundamental electronic communications system problems	40
UEENEEK142A	Apply environmentally and sustainable procedures in the energy sector	20
Total points in core		680

Elective Competency Standard Units

Complete Elective units to achieve a total of weighting of 380 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 3. If units have not being assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0	180
B	Qualification Elective Units You may select all your elective units from this Group	200	380

Group A – Imported and Common Elective Units You may complete units to a maximum weighting of 180		Weighting Points
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
UEENEEED101A	Use computer applications relevant to a workplace	20
UEENEEEEE009B	Comply with scheduled and preventative maintenance program processes	20
UEENEEEEE020B	Provide basic instruction in the use of electrotechnology apparatus	20
HLTAID003	Provide first aid	10
ICTTEN3056A	Install telecommunications network equipment	40
MSS402001A	Apply competitive systems and practices	20
MSS402020A	Apply quick changeover procedures	20
MSS402021A	Apply Just in Time procedures	20
MSS402040A	Apply 5S procedures	20
MSS402080A	Undertake root cause analysis	20
MSS402081A	Contribute to the application of a proactive maintenance strategy	20
	Imported units from other training packages and/or	Up to 180

	<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 3. 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>	points
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Group B – Qualification Elective Units		Weighting Points
Complete units to a minimum weighting of 200 You may select all your elective units from this Group		
UEENEEA101A	Assemble electronic components	40
UEENEEA102A	Select electronic components for assembly	20
UEENEEA103A	Set up and check electronic component assembly machines	40
UEENEEA104A	Modify electronic sub assemblies	40
UEENEEA105A	Conduct quality and functional tests on assembled electronic apparatus	20
UEENEEA106A	Use lead-free soldering techniques	40
UEENEED101A	Operate and maintain amateur radio communication stations	40
UEENEED102A	Assemble, set-up and test computing devices	80
UEENEED104A	Use engineering applications software on personal computers	40
UEENEED112A	Support computer hardware and software for engineering applications	120
UEENEED129A	Develop web pages for engineering applications	40
UEENEED130A	Select, install, configure and test multimedia components	40
UEENEED143A	Install and configure a client computer operating system and software	40
UEENEED146A	Set up and configure basic local area network (LAN)	40
UEENEED153A	Set up, configure and test biometric devices	40
UEENEEE105A	Fix and secure electrotechnology equipment	20
UEENEEE107A	Use drawings, diagrams, schedules, standards, codes and specifications	40
UEENEEE108A	Lay wiring/cabling and terminate accessories for extra-low voltage (ELV) circuits	40
UEENEEE121A	Plan an integrated cabling installation system	40
UEENEEE122A	Carry out preparatory energy sector work activities	60
UEENEEE123A	Solve basic problems electronic and digital equipment and circuits	80

UEENEEE179A	Identify and select components, accessories and materials for energy sector work activities	20
UEENEEF102A	Install and maintain cabling for multiple access to telecommunication services	120
UEENEEF104A	Install and modify performance data communication copper cabling	40
UEENEEF105A	Install and modify optical fibre performance data communication cabling	40
UEENEEF106A	Solve problems in voice and data communications circuits	40
UEENEEF107A	Set up and configure the wireless capabilities of communications and data storage devices	40
UEENEEF108A	Select and arrange equipment for wireless communication networks	40
UEENEEF109A	Install and connect data and voice communication equipment	40
UEENEEF110A	Select and arrange data and voice equipment for local area networks	40
UEENEEF111A	Test, report and rectify faults in data and voice installations	40
UEENEEF114A	Set up and configure basic data communication systems	40
UEENEEH101A	Repair basic computer equipment faults by replacement of modules/sub-assemblies	40
UEENEEH103A	Repair routine business equipment faults	120
UEENEEH104A	Set up and test residential video/audio equipment	40
UEENEEH105A	Verify functionality and compliance of custom electronic installations	40
UEENEEH106A	Assemble and set up fixed video/audio components and systems in buildings and premises	120
UEENEEH107A	Repair predictable faults in general electronic apparatus	40
UEENEEH108A	Assemble and install reception antennae and signal distribution equipment	60
UEENEEH109A	Set up and test gaming and game equipment	60
UEENEEH110A	Install commercial video/audio system components	120
UEENEEH115A	Develop software solutions for microcontroller	60

	based systems	
UEENEEH116A	Find and repair microwave amplifier section faults in electronic apparatus	40
UEENEEH117A	Carry out repairs of predictable faults in video and audio replay/recording apparatus	120
UEENEEH118A	Fault find and repair electronic apparatus	40
UEENEEH119A	Repair predictable faults in television receivers	120
UEENEEH120A	Fault find and repair gaming and games equipment	80
UEENEEH121A	Fault find and repair high volume office equipment	120
UEENEEH122A	Fault find and repair remote control apparatus	60
UEENEEH123A	Fault find and repair microwave heating apparatus	40
UEENEEH124A	Repair predictable faults in audio components	40
UEENEEH127A	Set up and adjust commercial radio frequency (RF) transmission and reception systems	60
UEENEEH128A	Install and test microwave antennae and waveguides	60
UEENEEH142A	Solve oscillator problems	40
UEENEEH150A	Assemble and set up basic security systems	80
UEENEEH151A	Install large security systems	100
UEENEEH152A	Enter instructions and test wired and wireless security systems	40
UEENEEH154A	Program and commission commercial security systems	60
UEENEEH155A	Program and commission commercial access control security systems	60
UEENEEH156A	Program and commission commercial security closed circuit television systems	60
UEENEEH161A	Install fire detection and warning system apparatus	40
UEENEEH162A	Verify compliance and functionality of fire protection system installations	60
UEENEEH163A	Enter and verify programs for fire protection systems	40
UEENEEH164A	Commission large fire protection systems	40
UEENEEH165A	Troubleshoot fire protection systems	40

UEENEEH166A	Troubleshoot microcontroller based hardware systems	40
UEENEEH169A	Solve problems in basic electronic circuits	100
UEENEEH171A	Troubleshoot faults in television receivers	120
UEENEEH172A	Troubleshoot communication systems	80
UEENEEH173A	Troubleshoot professional audio reproduction components	120
UEENEEH174A	Troubleshoot audio - video recording equipment	120
UEENEEH187A	Solve problems in electronic musical equipment circuits	40
UEENEEI101A	Use instrumentation drawings, specification, standards and equipment manuals	40
UEENEEI116A	Assemble, enter and verify operating instructions in microprocessor equipped devices	20
UEENEEI117A	Calibrate, adjust and test measuring instruments	40
UEENEEI150A	Develop, enter and verify discrete control programs for programmable controllers	60
UEENEPE010A	Disconnect - reconnect appliances connected to low voltage installation wiring	60
UEENEPE012A	Disconnect / reconnect composite appliances connected to low voltage installation wiring	60
UEENEPE017A	Locate and rectify faults in low voltage composite appliances using set procedures	20
UEENEPE024A	Attach cords and plugs to electrical equipment for connection to a single phase 230 Volt supply	20
UEENEPE025A	Attach cords, cables and plugs to electrical equipment for connection to 1000 Va.c. or 1500 Vd.c. supply	20

Note:

1. Pre-requisite 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 pre-requisite pathway for the progression to achieve particular competencies or qualification at a higher level.

END OF QUALIFICATION

Custom Content Section

Not applicable.

UEE31011 Certificate III in Fire Protection Control

Modification History

Release	Action	Core/Elective	Details	Points
2	Update	Group A	HLTCPR211A Perform CPR	10
2	Update	Group A	HLTFA311A Apply first aid	10
2	Edit		Edit Name to reflect correct Unit title UEENEE104A Use engineering applications software on personal computers	40
2	Update	Core	CPPFES2043A Prevent ozone depleting substance and synthetic greenhouse gas emissions	10

4	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
4	Update	Elective	HLTAID003 - Provide first aid	10
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 UEENEE108A - Lay wiring/cabling and terminate accessories for extra-low voltage (ELV) circuits	40
4	Edit	Core	Correct title of UEENEEH102A - Repairs basic electronic apparatus faults by replacement of components	40
4	Edit	Core	Correct title of UEENEEH161A - Install fire detection and warning system apparatus	40
4	Edit	Core	Correct title of UEENEEH162A - Verify compliance and functionality of fire protection system installations	60

4	Edit	Core	Correct title of UEENEEH163A - Enter and verify programs for fire protection systems	40
4	Edit	Core	Correct title of UEENEEK142A - Apply environmentally and sustainable procedures in the energy sector	20

4	Edit	Elective	Correct title of UEENEED101A - Use computer applications relevant to a workplace	20
4	Edit	Elective	Correct title of UEENEEH164A - Commission large fire protection systems	40
4	Edit	Elective	Correct title of UEENEEH165A - Troubleshoot fire protection systems	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 UEENEED013A - Disconnect - reconnect control devices connected to low voltage installation wiring	60

Description

Scope

This qualification provides competencies to select, install, set up, test, fault find, repair and maintain fire protection systems in multiple, commercial and industrial premises.

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

Core Competency Standard Units All Core competency standard units to be achieved		Weighting Points
UEENEEC022B	Participate in fire protection control work and competency development activities	60
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
UEENEEE108A	Lay wiring/cabling and terminate accessories for extra-low voltage (ELV) circuits	40
UEENEEE119A	Solve problems in multiple path extra low voltage (ELV) a.c. circuits	40
UEENEEE137A	Document and apply measures to control OHS risks associated with electrotechnology work	20
UEENEFF102A	Install and maintain cabling for multiple access to telecommunication services	120
UEENEEH102A	Repairs basic electronic apparatus faults by replacement of components	40
UEENEEH161A	Install fire detection and warning system apparatus	40
UEENEEH162A	Verify compliance and functionality of fire protection system installations	60
UEENEEH163A	Enter and verify programs for fire protection systems	40
UEENEK142A	Apply environmentally and sustainable procedures in the energy sector	20
CPPFES2043A	Prevent ozone depleting substance and synthetic greenhouse gas emissions	10

Core Competency Standard Units All Core competency standard units to be achieved	Weighting Points
Total points in core	690

Elective Competency Standard Units Complete Elective units to achieve a total of weighting of 370 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 3. If units have not been assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0	170
B Qualification Elective Units You may select all your elective units from this Group	200	370

Group A – Imported and Common Elective Units You may complete units to a maximum weighting of 170		Weighting Points
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
CPCCOHS1001A	Work safely in the construction industry	10
HLTAID001	Provide cardiopulmonary resuscitation	10
HLTAID003	Provide first aid	10

	<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 3. 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>	Up to 170 points
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Group B – Qualification Elective Units Complete units to a minimum weighting of 200 You may select all your elective units from this Group		Weighting Points
UEENEED104A	Use engineering applications software on personal computers	40
UEENEED104A	Install and modify performance data communication copper cabling	40
UEENEED105A	Install and modify optical fibre performance data communication cabling	40
UEENEED111A	Troubleshoot single phase input d.c. power supplies	40
UEENEED164A	Commission large fire protection systems	40
UEENEED165A	Troubleshoot fire protection systems	40
UEENEED116A	Assemble, enter and verify operating instructions in microprocessor equipped devices	20
UEENEED150A	Develop, enter and verify discrete control programs for programmable controllers	60
UEENEED024A	Install explosion-protected equipment and wiring systems - gas atmospheres	60
UEENEED077A	Install and maintain the integrity of fixed gas detection equipment	20
UEENEED080A	Report on the integrity of explosion-protected equipment in a hazardous area	20
UEENEED013A	Disconnect - reconnect control devices connected to low voltage installation wiring	60
UEENEED018A	Locate and rectify faults in low voltage control devices using set procedures	20

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.

UEE31111 Certificate III in Gaming Electronics

Modification History

Release	Action	Core/Elective	Details	Points
2	Update	Group A	HLTCPR211A Perform CPR	10
2	Update	Group A	HLTFA311A Apply first aid	10
2	Edit		Edit Name to reflect correct Unit title UEENEED104A Use engineering applications software on personal computers	40

4	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
4	Update	Elective	HLTAID003 - Provide first aid	10
4	Edit	Core	Correct title of UEENEEE101A - Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
4	Edit	Core	Correct title of UEENEEE102A - Fabricate, assemble and dismantle utilities industry components	40
4	Edit	Core	Correct title of UEENEEH102A - Repairs basic electronic apparatus faults by replacement of components	40
4	Edit	Core	Correct title of UEENEEK142A - Apply environmentally and sustainable procedures in the energy sector	20
4	Edit	Elective	Correct title of UEENEED101A - Use computer applications relevant to a workplace	20
4	Edit	Elective	Correct title of UEENEED102A - Assemble, set-up and test computing devices	80
4	Edit	Elective	Correct title of UEENEEE123A - Solve basic problems electronic and digital equipment and circuits	80
4	Edit	Elective	Correct title of UEENEEE179A - Identify and select components, accessories and materials for energy sector work activities	20

Description

Scope

This qualification provides competencies to select, install, set up, test, fault find, repair and maintain gaming machines used in registered clubs and hotels and dedicated games machines used in electronic game venues.

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

Core Competency Standard Units		Weighting Points
All Core competency standard units to be achieved		
UEENEEC023B	Participate in gaming electronic work and competency development activities	60
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
UEENEEE107A	Use drawings, diagrams, schedules, standards, codes and specifications	40
UEENEEE137A	Document and apply measures to control OHS risks associated with electrotechnology work	20
UEENEEH102A	Repairs basic electronic apparatus faults by replacement of components	40
UEENEEH109A	Set up and test gaming and game equipment	60
UEENEEH111A	Troubleshoot single phase input d.c. power supplies	40
UEENEEH112A	Troubleshoot digital sub-systems	80
UEENEEH113A	Troubleshoot amplifiers in an electronic apparatus	80
UEENEEH114A	Troubleshoot resonance circuits in an electronic apparatus	80
UEENEEH139A	Troubleshoot basic amplifier circuits	40
UEENEK142A	Apply environmentally and sustainable procedures in the energy sector	20
Total points in core		700

Elective Competency Standard Units		
Complete Elective units to achieve a total of weighting of 360 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 3. If units have not being assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0
B	Qualification Elective Units You may select all your elective units from this Group	200

Group A – Imported and Common Elective Units		Weighting Points
You may complete units to a maximum weighting of 160		
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
UEENEEED101A	Use computer applications relevant to a workplace	20
UEENEEEE009B	Comply with scheduled and preventative maintenance program processes	20
UEENEEEE020B	Provide basic instruction in the use of electrotechnology apparatus	20
HLTAID001	Provide cardiopulmonary resuscitation	10
HLTAID003	Provide first aid	10
	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 3. If units have not being assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting	Up to 160 points

	<p>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>	
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Group B – Qualification Elective Units Complete units to a minimum weighting of 200 You may select all your elective units from this Group		Weighting Points
UEENEED102A	Assemble, set-up and test computing devices	80
UEENEED104A	Use engineering applications software on personal computers	40
UEENEED146A	Set up and configure basic local area network (LAN)	80
UEENEEE105A	Fix and secure electrotechnology equipment	20
UEENEEE108A	Lay wiring/cabling and terminate accessories for ELV circuits	40
UEENEEE123A	Solve basic problems electronic and digital equipment and circuits	80
UEENEEE179A	Identify and select components, accessories and materials for energy sector work activities	20
UEENEEH107A	Repair predictable faults in general electronic apparatus	40
UEENEEH115A	Develop software solutions for microcontroller based systems	60
UEENEEH120A	Fault find and repair gaming and games equipment	80
UEENEEH138A	Fault find and repair complex power supplies	40

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.

UEE31211 Certificate III in Instrumentation and Control

Modification History

Release	Action	Core/Elective	Details	Points
2	Update	Group A	HLTCPR211A Perform CPR	10
2	Update	Group A	HLTFA311A Apply first aid	10
2	Edit		Edit Name to reflect correct Unit title UEENEED104A Use engineering applications software on personal computers	40

3	Edit	Core	Edit Name to reflect correct Unit title UEENEEI102A Solve problems in pressure measurement components and systems	40
3	Edit	Core	Edit Name to reflect correct Unit title UEENEEI103A Solve problems in density_level measurement components and systems	40
3	Edit	Core	Edit Name to reflect correct Unit title UEENEEI104A Solve problems in flow measurement components and systems	40
3	Edit	Core	Edit Name to reflect correct Unit title UEENEEI105A Solve problems in temperature measurement components and systems	40
3	Edit	Core	Edit Name to reflect correct Unit title UEENEEI106A Set up and adjust PID control loops	40
3	Edit	Core	Edit Name to reflect correct Unit title UEENEEI110A Set up and adjust advanced PID process control loops	40
3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI114A Trouble shoot process control systems	60

4	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
4	Update	Elective	HLTAID003 - Provide first aid	10
4	Edit	Core	Correct title of UEENEEE101A - Apply Occupational Health and Safety regulations, codes and practices in the workplace	20

4	Edit	Core	Correct title of UEENEEE102A - Fabricate, assemble and dismantle utilities industry components	40
4	Edit	Core	Correct title of UEENEEE119A - Solve problems in multiple path extra low voltage (ELV) a.c. circuits	40
4	Edit	Core	Correct title of UEENEEI101A - Use instrumentation drawings, specification, standards and equipment manuals	40
4	Edit	Core	Correct title of UEENEEI103A - Solve problems in density/level measurement components and systems	40
4	Edit	Core	Correct title of UEENEEI107A - Install instrumentation and control cabling and tubing	20
4	Edit	Core	Correct title of UEENEEI108A - Install instrumentation and control apparatus and associated equipment	20
4	Edit	Core	Correct title of UEENEEK142A - Apply environmentally and sustainable procedures in the energy sector	20
4	Edit	Core	Correct title of UEENEEP013A - Disconnect - reconnect control devices connected to low voltage installation wiring	60
4	Edit	Elective	Correct title of UEENEEI101A - Use computer applications relevant to a workplace	20
4	Edit	Elective	Correct title of UEENEEH102A - Repairs basic electronic apparatus faults by replacement of components	40
4	Edit	Elective	Correct title of UEENEEI115A - Trouble shooting in medical equipment control systems	120
4	Edit	Elective	Correct title of UEENEEI117A - Calibrate, adjust and test measuring instruments	40

Description

Scope

This qualification provides competencies to select, install, set up, test, fault find, repair and maintain systems and devices for measurement and recording of physical/chemical phenomenon and related process control.

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

Core Competency Standard Units All Core competency standard units to be achieved		Weighting Points
UEENEEC024B	Participate in instrumentation and control work and competency development activities	60
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
UEENEEE119A	Solve problems in multiple path extra low voltage (ELV) a.c. circuits	40
UEENEEE137A	Document and apply measures to control OHS risks associated with electrotechnology work	20
UEENEEI101A	Use instrumentation drawings, specification, standards and equipment manuals	40
UEENEEI102A	Solve problems in pressure measurement components and systems	40
UEENEEI103A	Solve problems in density/level measurement components and systems	40
UEENEEI104A	Solve problems in flow measurement components and systems	40
UEENEEI105A	Solve problems in temperature measurement components and systems	40
UEENEEI106A	Set up and adjust PID control loops	40
UEENEEI107A	Install instrumentation and control cabling and tubing	20
UEENEEI108A	Install instrumentation and control apparatus and	20

Core Competency Standard Units All Core competency standard units to be achieved		Weighting Points
	associated equipment	
UEENEEI110A	Set up and adjust advanced PID process control loops	40
UEENEEI111A	Find and rectify faults in process final control elements	40
UEENEEI112A	Verify compliance and functionality of instrumentation and control installations	40
UEENEEI113A	Setup and configure human-machine interface (HMI) and industrial networks	60
UEENEEI150A	Develop, enter and verify discrete control programs for programmable controllers	60
UEENEEK142A	Apply environmentally and sustainable procedures in the energy sector	20
UEENEEP013A	Disconnect - reconnect control devices connected to low voltage installation wiring	60
Total points in core		920

Elective Competency Standard Units Complete Elective units to achieve a total of weighting of 140 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 3. If units have not been assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0	60
B	Qualification Elective Units You may select all your elective units from this Group	80	140

Group A – Imported and Common Elective Units You may complete units to a maximum weighting of 60		Weighting Points
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
CPCCOHS1001A	Work safely in the construction industry	10
HLTAID001	Provide cardiopulmonary resuscitation	10
HLTAID003	Provide first aid	10
	<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 3. 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>	Up to 60 points

Group B – Qualification Elective Units Complete units to a minimum weighting of 80 You may select all your elective units from this Group		Weighting Points
UEENEED104A	Use engineering applications software on personal computers	40
UEENEEH102A	Repairs basic electronic apparatus faults by replacement of components	40
UEENEEH111A	Troubleshoot single phase input d.c. power supplies	40
UEENEEH112A	Troubleshoot digital sub-systems	80
UEENEEL114A	Trouble shoot process control systems	60
UEENEEL115A	Trouble shooting in medical equipment control systems	120
UEENEEL117A	Calibrate, adjust and test measuring instruments	40
UEENEEL118A	Set up weighting measuring and control instruments	20
UEENEEL131A	Set up gas analysis measuring and control instruments	20
UEENEEL132A	Set up water analysis measuring and control instruments	20
UEENEEL133A	Set up scientific analysis measuring and control instruments	20
UEENEEM019A	Attend to breakdowns in hazardous areas — coal mining	20
UEENEEM020A	Attend to breakdowns in hazardous areas — gas atmospheres	20
UEENEEM021A	Attend to breakdowns in hazardous areas — dust atmospheres	20
UEENEEM022A	Attend to breakdowns in hazardous areas — pressurisation	20
UEENEEM023A	Install explosion-protected equipment and wiring systems — coal mining	60
UEENEEM024A	Install explosion-protected equipment and wiring systems — gas atmospheres	60
UEENEEM025A	Install explosion-protected equipment and wiring systems — dust atmospheres	60
UEENEEM026A	Install explosion-protected equipment and wiring systems — pressurisation	60
UEENEEM027A	Maintain equipment in hazardous areas — coal mining	60

UEENEEM028A	Maintain equipment in hazardous areas — gas atmospheres	60
UEENEEM029A	Maintain equipment in hazardous areas — dust atmospheres	60
UEENEEM030A	Maintain equipment in hazardous areas — pressurisation	60
UEENEEM076A	Use and maintain the integrity of a portable gas detection device	20
UEENEEM077A	Install and maintain the integrity of fixed gas detection equipment	20
UEENEEM080A	Report on the integrity of explosion-protected equipment in a hazardous area	20

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.

UEE31411 Certificate III in Security Equipment

Modification History

Release	Action	Core/Elective	Details	Points
2	Update	Group A	HLTCPR211A Perform CPR	10
2	Update	Group A	HLTFA311A Apply first aid	10

4	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
4	Update	Elective	HLTAID003 - Provide first aid	10
4	Edit	Core	Correct title of UEENEEE101A - Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
4	Edit	Core	Correct title of UEENEEE102A - Fabricate, assemble and dismantle utilities industry components	40
4	Edit	Core	Correct title of UEENEEE108A - Lay wiring/cabling and terminate accessories for extra-low voltage (ELV) circuits	40
4	Edit	Core	Correct title of UEENEEH150A - Assemble and set up basic security systems	40
4	Edit	Core	Correct title of UEENEEH151A - Install large security systems	40
4	Edit	Core	Correct title of UEENEEH152A - Enter instructions and test wired and wireless security systems	40
4	Edit	Core	Correct title of UEENEEK142A - Apply environmentally and sustainable procedures in the energy sector	20
4	Edit	Elective	Correct title of UEENEEH101A - Use computer applications relevant to a workplace	20
4	Edit	Elective	Correct title of UEENEEH102A - Repairs basic electronic apparatus faults by replacement of components	40
4	Edit	Elective	Correct title of UEENEEH153A - Program and test large security systems	120
4	Edit	Elective	Correct title of UEENEEH154A - Program and commission commercial security systems	60
4	Edit	Elective	Correct title of UEENEEH155A - Program and	60

			commission commercial access control security systems	
4	Edit	Elective	Correct title of UEENEEH156A - Program and commission commercial security closed circuit television systems	60

Description

Scope

This qualification provides competencies in installation and pre-commissioning set up of wired and wireless security systems in multiple, commercial industrial premises.

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

Core Competency Standard Units All Core competency standard units to be achieved		Weighting Points
UEENEEC026B	Participate in security equipment work and competency development activities	60
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
UEENEEE108A	Lay wiring/cabling and terminate accessories for extra-low voltage (ELV) circuits	40
UEENEEE137A	Document and apply measures to control OHS risks associated with electrotechnology work	20
UEENEEH114A	Troubleshoot resonance circuits in an electronic apparatus	80
UEENEEH150A	Assemble and set up basic security systems	80
UEENEEH151A	Install large security systems	100
UEENEEH152A	Enter instructions and test wired and wireless security systems	40
UEENEK142A	Apply environmentally and sustainable procedures in the energy sector	20
Total points in core		640

Elective Competency Standard Units		
Complete Elective units to achieve a total of weighting of 420 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 3. If units have not being assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0
B	Qualification Elective Units You may select all your elective units from this Group	250

Group A – Imported and Common Elective Units		Weighting Points
You may complete units to a maximum weighting of 170		
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
UEENEEED101A	Use computer applications relevant to a workplace	20
UEENEEEE009B	Comply with scheduled and preventative maintenance program processes	20
UEENEEEE020B	Provide basic instruction in the use of electrotechnology apparatus	20
CPCCOHS1001A	Work safely in the construction industry	10
HLTAID001	Provide cardiopulmonary resuscitation	10
HLTAID003	Provide first aid	10
	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 3. If units have not being assigned a weighting by the relevant EE-Oz Industry	Up to 170 points

	<p>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>	
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Group B – Qualification Elective Units		Weighting Points
Complete units to a minimum weighting of 250 You may select all your elective units from this Group		
UEENEEF102A	Install and maintain cabling for multiple access to telecommunication services	120
UEENEEH102A	Repairs basic electronic apparatus faults by replacement of components	40
UEENEEH103A	Repair routine business equipment faults	120
UEENEEH104A	Set up and test residential video/audio equipment	40
UEENEEH118A	Fault find and repair electronic apparatus	40
UEENEEH153A	Program and test large security systems	120
UEENEEH154A	Program and commission commercial security systems	60
UEENEEH155A	Program and commission commercial access control security systems	60
UEENEEH156A	Program and commission commercial security closed circuit television systems	60
UEENEEH169A	Solve problems in basic electronic circuits	100

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.

UEE31511 Certificate III in Rail - Communications and Networks

Modification History

Release	Action	Core/Elective	Details	Points
2	Update	Group A	HLTCPR211A Perform CPR	10
2	Update	Group A	HLTFA311A Apply first aid	10
2	Edit		Edit Name to reflect correct Unit title UEENEED104A Use engineering applications software on personal computers	40

4	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
4	Update	Elective	HLTAID003 - Provide first aid	10
4	Edit	Core	Correct title of UEENEEE101A - Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
4	Edit	Core	Correct title of UEENEEE102A - Fabricate, assemble and dismantle utilities industry components	40
4	Edit	Core	Correct title of UEENEEH102A - Repairs basic electronic apparatus faults by replacement of components	20
4	Edit	Core	Correct title of UEENEEK142A - Apply environmentally and sustainable procedures in the energy sector	20
4	Edit	Elective	Correct title of UEENEED101A - Use computer applications relevant to a workplace	20

Description

Scope

This qualification provides competencies to select, install, commission, fault find and maintain radio and dedicated telecommunications networks in rail equipment.

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

Core Competency Standard Units		Weighting Points
All Core competency standard units to be achieved		
UEENEEC027B	Participate in rail communications and networks work and competency development activities	60
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
UEENEEE107A	Use drawings, diagrams, schedules, standards, codes and specifications	40
UEENEEE137A	Document and apply measures to control OHS risks associated with electrotechnology work	20
UEENEEH102A	Repairs basic electronic apparatus faults by replacement of components	40
UEENEEH111A	Troubleshoot single phase input d.c. power supplies	40
UEENEEH112A	Troubleshoot digital sub-systems	80
UEENEEH113A	Troubleshoot amplifiers in an electronic apparatus	80
UEENEEH114A	Troubleshoot resonance circuits in an electronic apparatus	80
UEENEEH138A	Fault find and repair complex power supplies	40
UEENEEH139A	Troubleshoot basic amplifier circuits	40
UEENEEK142A	Apply environmentally and sustainable procedures in the energy sector	20
Total points in core		680

Elective Competency Standard Units		
Complete Elective units to achieve a total of weighting of 380 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 3. If units have not being assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0
B	Qualification Elective Units You may select all your elective units from this Group	210

Group A – Imported and Common Elective Units		Weighting Points
You may complete units to a maximum weighting of 170		
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
UEENEEED101A	Use computer applications relevant to a workplace	20
UEENEEEE009B	Comply with scheduled and preventative maintenance program processes	20
UEENEEEE020B	Provide basic instruction in the use of electrotechnology apparatus	20
CPCCOHS1001A	Work safely in the construction industry	10
HLTAID001	Provide cardiopulmonary resuscitation	10
HLTAID003	Provide first aid	10
	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 3. If units have not being assigned a weighting by the relevant EE-Oz Industry	Up to 170 points

	<p>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>	
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Group B – Qualification Elective Units Complete units to a minimum weighting of 210 You may select all your elective units from this Group		Weighting Points
UEENEED104A	Use engineering applications software on personal computers	40
UEENEED102A	Install and maintain cabling for multiple access to telecommunication services	120
UEENEED104A	Install and modify performance data communication copper cabling	40
UEENEED105A	Install and modify optical fibre performance data communication cabling	40
UEENEED107A	Set up and configure the wireless capabilities of communications and data storage devices	40
UEENEED108A	Select and arrange equipment for wireless communication networks	60
UEENEED109A	Install and connect data and voice communication equipment	40
UEENEED110A	Select and arrange data and voice equipment for local area networks	40
UEENEED115A	Develop software solutions for microcontroller based 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.

END OF QUALIFICATION

Custom Content Section

Not applicable.

UEE32011 Certificate III in Renewable Energy - ELV

Modification History

Release	Action	Core/Elective	Details	Points
2	Update	Group A	HLTCPR211A Perform CPR	10
2	Update	Group A	HLTFA311A Apply first aid	10

4	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
4	Update	Elective	HLTAID003 - Provide first aid	10
4	Edit	Core	Correct title of UEENEEE101A - Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
4	Edit	Core	Correct title of UEENEEE102A - Fabricate, assemble and dismantle utilities industry components	40
4	Edit	Core	Correct title of UEENEEE108A - Lay wiring/cabling and terminate accessories for extra-low voltage (ELV) circuits	40
4	Edit	Core	Correct title of UEENEEE119A - Solve problems in multiple path extra low voltage (ELV) a.c. circuits	40
4	Edit	Core	Correct title of UEENEEK142A - Apply environmentally and sustainable procedures in the energy sector	20
4	Edit	Core	Correct title of UEENEEK128A - Solve problems in stand-alone renewable energy systems	120
4	Edit	Elective	Correct title of UEENEEED101A - Use computer applications relevant to a workplace	20
4	Edit	Elective	Correct title of UEENEEK117A - Maintain and repair facilities associated with remote area essential service operations	120
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 UEENEEK134A - Install ELV stand-alone photovoltaic power systems	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 UEENEEP026A - Conduct in-service safety testing of electrical cord connected equipment and cord assemblies	20
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Description

Scope

Select, install, set up, test, fault find, repair and maintain renewable energy equipment and systems. It does not include electrical work covered by licensing requirements declared by the Electrical Regulators Advisory Council (ERAC) for an 'Electrician's licence'.

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

Core Competency Standard Units All Core competency standard units to be achieved		Weighting Points
UEENEEC021B	Participate in electronics and communications work and competency development activities	60
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
UEENEEE108A	Lay wiring/cablings and terminate accessories for extra-low voltage (ELV) circuits	40
UEENEEE119A	Solve problems in multiple path extra low voltage (ELV) a.c. circuits	40
UEENEEE137A	Document and apply measures to control OHS risks associated with electrotechnology work	20
UEENEEG101A	Solve problems in electromagnetic devices and related circuits	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
UEENEEK142A	Apply environmentally and sustainable procedures in the energy sector	20

UEENEEK149A	Verify compliance and functionality of a extra low voltage renewable energy installation	40
Total points in core		700

Elective Competency Standard Units

Complete Elective units to achieve a total of weighting of 360 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 3. If units have not being assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0	170
B	Qualification Elective Units You may select all your elective units from this Group	190	360

Group A – Imported and Common Elective Units		Weighting Points
You may complete units to a maximum weighting of 170		
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
UEENEEED101A	Use computer applications relevant to a workplace	20
UEENEEEEE009B	Comply with scheduled and preventative maintenance program processes	20
UEENEEEEE020B	Provide basic instruction in the use of electrotechnology apparatus	20
CPCCOHS1001A	Work safely in the construction industry	10
HLTAID001	Provide cardiopulmonary resuscitation	10
HLTAID003	Provide first aid	10

	<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 3. 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>	Up to 170 points
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Group B – Qualification Elective Units Complete units to a minimum weighting of 190 You may select all your elective units from this Group		Weighting Points
UEENEEK101A	Maintain safety and tidiness of remote area power supply systems	20
UEENEEK102A	Work safely with remote area power supply systems	20
UEENEEK103A	Conduct periodic maintenance of remote area power supply battery banks	40
UEENEEK104A	Conduct periodic maintenance of remote area power supply generator sets	40
UEENEEK105A	Conduct periodic maintenance of remote area power supply photo voltaic arrays	40
UEENEEK106A	Conduct periodic maintenance of remote area power supply wind generators	40
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
UEENEEK116A	Maintain and repair remote area power generation facilities	120
UEENEEK117A	Maintain and repair facilities associated with remote area essential service operations	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 systems rated up to 10 kW	60
UEENEEK134A	Install ELV stand-alone photovoltaic power systems	60
UEENEEK137A	Install, set up and maintain ELV micro-hydro systems rated up to 6.4 kW	20
UEENEEK143A	Install small wind energy conversion systems rated up to 10 kW for ELV stand-alone applications	20
UEENEPP024A	Attach cords and plugs to electrical equipment for connection to a single phase 230 Volt supply	20
UEENEPP025A	Attach cords, cables and plugs to electrical	20

	equipment for connection to 1000 Va.c. or 1500 Vd.c. supply	
UEENEPP026A	Conduct in-service safety testing of electrical cord connected equipment and cord assemblies	20

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.

UEE32111 Certificate III in Appliance Service

Modification History

Release	Action	Core/Elective	Details	Points
2	Update	Group A	HLTCPR211A Perform CPR	10
2	Update	Group A	HLTFA311A Apply first aid	10

4	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
4	Update	Elective	HLTAID003 - Provide first aid	10
4	Edit	Core	Correct title of UEENEEJ153A - Find and rectify faults in motors and associated controls in refrigeration and air conditioning systems	50
4	Edit	Core	Correct title of UEENEEK142A - Apply environmentally and sustainable procedures in the energy sector	20

Description

Scope

This qualification provides competencies to set-up, service and repair electrical and refrigerated appliances with electives in gas appliances.

Note: The Ozone Protection and Synthetic Greenhouse Gas Legislation Amendment Bill 2003 apply to this qualification. Prior to planning the delivery of any training and/or assessment activities all legislative and regulatory requirements shall be identified and included.

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

Core Competency Standard Units		
All Core competency standard units to be achieved		
UEENEEC017B	Participate in appliance servicing work and competency development activities	60
UEENEEE101A	Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
UEENEEE102A	Fabricate, assemble and dismantle utilities industry components	40
UEENEEE103A	Solve problems in ELV single path circuits	40
UEENEEE105A	Fix and secure electrotechnology equipment	20
UEENEEE107A	Use drawings, diagrams, schedules, standards, codes and specifications	40
UEENEEE137A	Document and apply measures to control OHS risks associated with electrotechnology work	20
UEENEEJ102A	Prepare and connect refrigerant tubing and fittings	30
UEENEEJ151A	Service small electrical appliances and power tools	60
UEENEEJ153A	Find and rectify faults in motors and associated controls in refrigeration and air conditioning systems	50
UEENEEJ154A	Find and rectify faults in appliance control systems and devices	60
UEENEEJ155A	Service refrigeration appliances	60
UEENEEJ156A	Service clothes washing machines and dryers	40
UEENEEJ161A	Verify functionality and compliance of appliances	20
UEENEEJ162A	Recover, pressure test, evacuate, charge and leak test refrigerants - appliances	50
UEENEEJ194A	Solve problems in low voltage refrigeration circuits	40
UEENEEJ195A	Establish the basic operating conditions of vapour compression systems - appliances	50

UEENEEK142A	Apply environmentally and sustainable procedures in the energy sector	20
UEENEEP012A	Disconnect / reconnect composite appliances connected to low voltage installation wiring	60
UEENEEP017A	Locate and rectify faults in low voltage composite appliances using set procedures	20
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
Total points in core		840

Elective Competency Standard Units

Complete Elective units to achieve a total of weighting of 220 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 3. If units have not being assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0	100
B	Qualification Elective Units You may select all your elective units from this Group	120	220

Group A – Imported and Common Elective Units You may complete units to a maximum weighting of 100		Weighting Points
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
UEENEED009B	Comply with scheduled and preventative maintenance program processes	20
UEENEED020B	Provide basic instruction in the use of electrotechnology apparatus	20
CPCCOHS1001A	Work safely in the construction industry	10
HLTAID001	Provide cardiopulmonary resuscitation	10
HLTAID003	Provide first aid	10
	<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 3. If units have not been 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>	Up to 100 points

Group B – Qualification Elective Units Complete units to a minimum weighting of 120 You may select all your elective units from this Group		Weighting Points
UEENEEJ104A	Establish the basic operating conditions of air conditioning systems	20
UEENEEJ118A	Resolve problems in post mix refrigeration systems	20
UEENEEJ157A	Service electrical heating appliances	60
UEENEEJ158A	Service dishwasher machines	40
UEENEEJ159A	Service gas heating appliances	40
UEENEEJ171A	Resolve problems in refrigerated beverage vending cabinets	20
UEENEEJ173A	Service and repair microwave ovens	40
UEENEEJ174A	Apply safety awareness and legal requirements for hydrocarbon refrigerants	10
UEENEEJ175A	Service and repair self contained hydrocarbon air conditioning and refrigeration systems	20
UEENEEJ184A	Apply safety awareness and legal requirements for carbon dioxide refrigerant	10
UEENEEJ188A	Repair and service self contained carbon dioxide refrigeration and heat pump systems	20
UEENEEJ189A	Service room air conditioners	30

Note:

1. Pre-requisite 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 pre-requisite pathway for the progression to achieve particular competencies or qualification at a higher level.

END OF QUALIFICATION

Custom Content Section

Not applicable.

UEE32211 Certificate III in Air-conditioning and Refrigeration

Modification History

Release	Action	Core/Elective	Details	Points
2	Update	Group A	HLTCPR211A Perform CPR	10
2	Update	Group A	HLTFA311A Apply first aid	10

5	Update	Group A	CPCPCM2043A – Carry out WHS requirements	40
5	Update	Group A	CPCPMS3035A – Install and test ducting systems	10

6	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
6	Update	Elective	HLTAID003 - Provide first aid	10
6	Edit	Core	Correct title of UEENEEJ153A - Find and rectify faults in motors and associated controls in refrigeration and air conditioning systems	50
6	Edit	Core	Correct title of UEENEEK142A - Apply environmentally and sustainable procedures in the energy sector	20
6	Edit	Elective	Correct title of UEENEEJ196A - Operate Ammonia Refrigeration Plant	40

Description

Scope

This qualification provides competencies to select components, install, set up, test, fault find, repair and maintain refrigeration systems and equipment that apply to food storage and preservation, air conditioning and air distribution equipment in buildings and premises. It includes regulatory requirements for purchasing and handling refrigerants.

Note:

The Ozone Protection and Synthetic Greenhouse Gas Legislation Amendment Bill 2003 apply to this qualification. Prior to planning the delivery of any training and/or assessment activities all legislative and regulatory requirements shall be identified and included.

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

Core Competency Standard Units All Core competency standard units to be achieved		Weighting points
UEENEEC025B	Participate in refrigeration and air conditioning work and competency development activities	60
UEENEEE101A	Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
UEENEEE102A	Fabricate, assemble and dismantle utilities industry components	40
UEENEEE103A	Solve problems in ELV single path circuits	40
UEENEEE105A	Fix and secure electrotechnology equipment	20
UEENEEE107A	Use drawings, diagrams, schedules, standards, codes and specifications	40
UEENEEE137A	Document and apply measures to control OHS risks associated with electrotechnology work	20
UEENEEJ102A	Prepare and connect refrigerant tubing and fittings	30
UEENEEJ103A	Establish the basic operating conditions of vapour compression systems	60
UEENEEJ104A	Establish the basic operating conditions of air conditioning systems	20
UEENEEJ106A	Install refrigerant pipe work, flow controls and accessories	60
UEENEEJ107A	Install air conditioning and refrigeration systems, major components and associated equipment	80
UEENEEJ108A	Recover, pressure test, evacuate, charge and leak test refrigerants	60
UEENEEJ109A	Verify functionality and compliance of refrigeration and air conditioning installations	20
UEENEEJ110A	Select refrigerant piping, accessories and associated controls	50
UEENEEJ111A	Diagnose and rectify faults in air conditioning and	40

Core Competency Standard Units		Weighting points
All Core competency standard units to be achieved		
	refrigeration systems and components	
UEENEEJ113A	Commission air conditioning and refrigeration systems	40
UEENEEJ153A	Find and rectify faults in motors and associated controls in refrigeration and air conditioning systems	50
UEENEEJ170A	Diagnose and rectify faults in air conditioning and refrigeration control systems	70
UEENEEJ194A	Solve problems in low voltage refrigeration circuits	40
UEENEEK142A	Apply environmentally and sustainable procedures in the energy sector	20
UEENEEP012A	Disconnect / reconnect composite appliances connected to low voltage installation wiring	60
UEENEEP017A	Locate and rectify faults in low voltage composite appliances using set procedures	20
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
Total points in core		1000

Elective Competency Standard Units		
Complete Elective units to achieve a total of weighting of 60 points from the following groups:		
Group	Minimum points	Maximum points
A		
Imported and Common Elective Units	0	30
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 3. If units have not being assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.		
B		
Qualification Elective Units You may select all your elective units from this Group	30	60

Group A – Imported and Common Elective Units		Weighting Points
You may complete units to a maximum weighting of 30		
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
CPCCOHS1001A	Work safely in the construction industry	10
CPCPCM2043A	Carry out WHS requirements	40
CPCPMS3035A	Install and test ducting systems	10
HLTAID001	Provide cardiopulmonary resuscitation	10
HLTAID003	Provide first aid	10
	<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 3. 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>	Up to 30 points

Group B – Qualification Elective Units		Weighting Points
Complete units to a minimum weighting of 30 You may select all your elective units from this Group		
UEENEEJ150A	Develop, enter and verify discrete control programs for programmable controllers	60
UEENEEJ114A	Resolve problems in hydronic systems	40
UEENEEJ115A	Resolve problems in beverage dispensers	40
UEENEEJ116A	Resolve problems in transport refrigeration systems	20
UEENEEJ117A	Resolve problems in ultra-low temperature refrigeration systems	20
UEENEEJ118A	Resolve problems in post mix refrigeration systems	20
UEENEEJ119A	Resolve problems in ice making systems	20
UEENEEJ120A	Resolve problems in industrial refrigeration systems	20
UEENEEJ166A	Resolve problems in dairy refrigeration systems	20
UEENEEJ167A	Resolve problems in central plant air conditioning systems	40
UEENEEJ168A	Maintain microbial control of refrigeration and air conditioning systems	20
UEENEEJ171A	Resolve problems in refrigerated beverage vending cabinets	20
UEENEEJ174A	Apply safety awareness and legal requirements for hydrocarbon refrigerants	10
UEENEEJ175A	Service and repair self contained hydrocarbon air conditioning and refrigeration systems	20
UEENEEJ176A	Install and commission hydrocarbon refrigeration systems, components and associated equipment	20
UEENEEJ178A	Apply safety awareness and legal requirements for ammonia refrigerant	10
UEENEEJ179A	Repair and service ammonia refrigeration systems	20
UEENEEJ180A	Install and commission ammonia refrigeration systems, components and associated equipment	20
UEENEEJ182A	Repair and service secondary refrigeration systems	20
UEENEEJ184A	Apply safety awareness and legal requirements for carbon dioxide refrigerant	10
UEENEEJ185A	Repair and service carbon dioxide refrigeration systems	20

UEENEEJ186A	Install and commission carbon dioxide refrigeration systems, components and associated equipment	20
UEENEEJ188A	Repair and service self contained carbon dioxide refrigeration and heat pump systems	20
UEENEEJ196A	Operate Ammonia Refrigeration Plant	40

Note:

1. Pre-requisite 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 pre-requisite pathway for the progression to achieve particular competencies or qualification at a higher level.

END OF QUALIFICATION

UEE33011 Certificate III in Electrical Fitting

Modification History

Release	Action	Core/Elective	Details	Points
2	Add	Group B	UETTDRIS67A Solve problems in energy supply network equipment	80
2	Add	Group B	UETTDRIS68A Solve problems in energy supply network protection equipment and systems	40
2	Add	Group B	UETTDRIS44A Perform HV field switching operation to a given schedule	60
2	Update	Group A	HLTCPR211A Perform CPR	10
2	Update	Group A	HLTFA311A Apply first aid	10
2	Edit		Edit Name to reflect correct Unit title UEENEED104A Use engineering applications software on personal computers	40

3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI102A Solve problems in pressure measurement components and systems	40
3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI103A Solve problems in density_level measurement components and systems	40
3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI104A Solve problems in flow measurement components and systems	40
3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI105A Solve problems in temperature measurement components and systems	40

4	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
4	Update	Elective	HLTAID003 - Provide first aid	10
4	Edit	Core	Correct title of UEENEED020B - Participate in electrical work and competency development activities	60
4	Edit	Core	Correct title of UEENEEI101A - Apply Occupational Health and Safety regulations, codes and practices in	20

			the workplace	
4	Edit	Core	Correct title of UEENEEE102A - Fabricate, assemble and dismantle utilities industry components	40
4	Edit	Core	Correct title of UEENEEG199A - Conduct compliance and functional verification of electrical apparatus and existing circuits	40
4	Edit	Core	Correct title of UEENEEK142A - Apply environmentally and sustainable procedures in the energy sector	20
4	Edit	Elective	Correct title of UEENEEA110A - Assemble, mount and connect control gear and switchgear	40
4	Edit	Elective	Correct title of UEENEEA112A - Fabricate and assemble bus bars	60
4	Edit	Elective	Correct title of UEENEEA113A - Mount and wire control panel equipment	40
4	Edit	Elective	Correct title of UEENEEED101A - Use computer applications relevant to a workplace	20
4	Edit	Elective	Correct title of UEENEEG111A - Carry out basic repairs to electrical components and equipment	40
4	Edit	Elective	Correct title of UEENEEG110A - Find and repair faults in LV d.c. electrical apparatus and circuits	60
4	Edit	Elective	Correct title of UEENEEG116A - Diagnose and rectify faults in traction lift systems	80
4	Edit	Elective	Correct title of UEENEEG119A - Maintain operation of electrical marine equipment and systems	60
4	Edit	Elective	Correct title of UEENEEG129A - Overhaul and repair major switchgear and controlgear	60
4	Edit	Elective	Correct title of UEENEEG153A - Rewind three phase low voltage induction machines	60
4	Edit	Elective	Correct title of UEENEEG159A - Conduct mechanical tests on electrical machines and components	40
4	Edit	Elective	Correct title of UEENEEG164A - Repair and maintain mechanical components of electrical machines	40
4	Edit	Elective	Correct title of UEENEEG165A - Maintain and service traction lifts systems and equipment	40
4	Edit	Elective	Correct title of UEENEEG166A - Install and maintain escalators, moving walks and treadways	40
4	Edit	Elective	Correct title of UEENEEG167A - Align and install	20

			traction lift equipment	
4	Edit	Elective	Correct title of UEENEEH102A - Repairs basic electronic apparatus faults by replacement of components -	40
4	Edit	Elective	Correct title of UEENEEI101A - - Use instrumentation drawings, specification, standards and equipment manuals	40
4	Edit	Elective	Correct title of UEENEEI103A - Solve problems in density/level measurement components and systems	40
4	Edit	Elective	Correct title of UEENEEI107A - Install instrumentation and control cabling and tubing	20
4	Edit	Elective	Correct title of UEENEEI108A - - Install instrumentation and control apparatus and associated equipment	20
4	Edit	Elective	Correct title of UEENEEI116A - Assemble, enter and verify operating instructions in microprocessor equipped devices	20
4	Edit	Elective	Correct title of UEENEEJ153A - Find and rectify faults in motors and associated controls in refrigeration and air conditioning systems	50
4	Edit	Elective	Correct title of UEENEEJ162A - Recover, pressure test, evacuate, charge and leak test refrigerants - appliances	50
4	Edit	Elective	Correct title of UEENEEN104A - Test copper rail signalling cables	20
4	Edit	Elective	Correct title of UEENEED010A - Disconnect - reconnect appliances connected to low voltage installation wiring	60
4	Edit	Elective	Correct title of UEENEED011A - Disconnect - reconnect neon signs connected to low voltage installation wiring	60
4	Edit	Elective	Correct title of UEENEED014A - Disconnect – reconnect water heaters connected to low voltage installation wiring	60
4	Edit	Elective	Correct title of UEENEED021A - Disconnect - reconnect explosion-protected appliances and control devices connected to low voltage installation wiring	60
4	Edit	Elective	Correct title of UEENEED023A - HV Flexible Cables and Plugs	40
4	Edit	Elective	Correct title of UETTDRIS43A - Perform low voltage field switching operation to a given schedule	50

4	Edit	Elective	Correct title of UETTDRIS44A - Perform HV field switching operation to a given schedule	40
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Description

Scope

This qualification provides competencies to manufacture, fit, assemble, erect, operate, test, fault find, alter, repair electrical equipment and includes electrical wiring work only if that work is associated with assembling, maintaining, terminating or altering the wiring between electrical components within a plant or machinery. An electrical fitter is not authorised to install any electrical wiring systems within an electrical installation as prescribed by definitions contained in AS/NZS 3000.

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.

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

Core Competency Standard Units All Core competency standard units to be achieved		Weighting Points
UEENEEC020B	Participate in electrical work and competency development activities	60
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
UEENEEE137A	Document and apply measures to control OHS risks associated with electrotechnology work	20
UEENEEO006A	Solve problems in single and three phase low voltage machines	80
UEENEEO033A	Solve problems in single and three phase low voltage electrical apparatus and circuits	60
UEENEEO063A	Arrange circuits, control and protection for general electrical installations	40
UEENEEO101A	Solve problems in electromagnetic devices and related circuits	60
UEENEEO102A	Solve problems in low voltage a.c. circuits	80
UEENEEO106A	Terminate cables, cords and accessories for low voltage circuits	40
UEENEEO108A	Trouble-shoot and repair faults in low voltage electrical apparatus and circuits	40
UEENEEO109A	Develop and connect electrical control circuits	80
UEENEEO199A	Conduct compliance and functional verification of electrical apparatus and existing circuits	40

UEENEEK142A	Apply environmentally and sustainable procedures in the energy sector	20
Total points in core		820

Elective Competency Standard Units

Complete Elective units to achieve a total of weighting of 240 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 3. If units have not being assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0	60
B	Qualification Elective Units You may select all your elective units from this Group	180	240

Group A – Imported and Common Elective Units You may complete units to a maximum weighting of 60		Weighting Points
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
UEENEEC101A	Use basic 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
CPCCOHS1001A	Work safely in the construction industry	10
HLTAID001	Provide cardiopulmonary resuscitation	10
HLTAID003	Provide first aid	10

	<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 3. 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 60 points</p>
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Group B – Qualification Elective Units		Weighting Points
Complete units to a minimum weighting of 180 You may select all your elective units from this Group		
UEENEEA110A	Assemble, mount and connect control gear and switchgear	40
UEENEEA112A	Fabricate and assemble bus bars	60
UEENEEA113A	Mount and wire control panel equipment	40
UEENEEED104A	Use engineering applications software on personal computers	40
UEENEEEF102A	Install and maintain cabling for multiple access to telecommunication services	120
UEENEEEF104A	Install and modify performance data communication copper cabling	40
UEENEEEF115A	Assemble and connect telecommunication frames and cabinets	60
UEENEEEG110A	Find and repair faults in LV d.c. electrical apparatus and circuits	60
UEENEEEG111A	Carry out basic repairs to electrical components and equipment	40
UEENEEEG116A	Diagnose and rectify faults in traction lift systems	80
UEENEEEG118A	Maintain operation of electrical mining equipment and systems	60
UEENEEEG119A	Maintain operation of electrical marine equipment and systems	60
UEENEEEG129A	Overhaul and repair major switchgear and controlgear	60
UEENEEEG150A	Wind electrical coils	40
UEENEEEG151A	Place and connect electrical coils	40
UEENEEEG152A	Rewind single phase machines	40
UEENEEEG153A	Rewind three phase low voltage induction machines	60
UEENEEEG154A	Rewind LV direct current machines	60
UEENEEEG157A	Conduct electrical tests on LV electrical machines	40
UEENEEEG159A	Conduct mechanical tests on electrical machines and components	40
UEENEEEG164A	Repair and maintain mechanical components of electrical machines	40

UEENEEG165A	Maintain and service traction lifts systems and equipment	40
UEENEEG166A	Install and maintain escalators, moving walks and treadways	40
UEENEEG167A	Align and install traction lift equipment	20
UEENEEG181A	Provide advice on effective and energy efficient lighting products	20
UEENEEG182A	Supply effective and efficient lighting products for domestic and small commercial applications	40
UEENEEG183A	Provide advice on the application of energy efficient lighting for ambient and aesthetic effect	20
UEENEEH102A	Repairs basic electronic apparatus faults by replacement of components	40
UEENEEH111A	Troubleshoot single phase input d.c. power supplies	40
UEENEEI101A	Use instrumentation drawings, specification, standards and equipment manuals	40
UEENEEI102A	Solve problems in pressure measurement components and systems	40
UEENEEI103A	Solve problems in density/level measurement components and systems	40
UEENEEI104A	Solve problems in flow measurement components and systems	40
UEENEEI105A	Solve problems in temperature measurement components and systems	40
UEENEEI107A	Install instrumentation and control cabling and tubing	20
UEENEEI108A	Install instrumentation and control apparatus and associated equipment	20
UEENEEI116A	Assemble, enter and verify operating instructions in microprocessor equipped devices	20
UEENEEI150A	Develop, enter and verify discrete control programs for programmable controllers	60
UEENEEJ102A	Prepare and connect refrigerant tubing and fittings	30
UEENEEJ103A	Establish the basic operating conditions of vapour compression systems	60
UEENEEJ104A	Establish the basic operating conditions of air conditioning systems	20
UEENEEJ105A	Position, assemble and start up single head split air conditioning and water heating heat pump systems	70

UEENEEJ106A	Install refrigerant pipe work, flow controls and accessories	60
UEENEEJ108A	Recover, pressure test, evacuate, charge and leak test refrigerants	60
UEENEEJ151A	Service small electrical appliances and power tools	60
UEENEEJ153A	Find and rectify faults in motors and associated controls in refrigeration and air conditioning systems	50
UEENEEJ154A	Find and rectify faults in appliance control systems and devices	60
UEENEEJ155A	Service refrigeration appliances	60
UEENEEJ156A	Service clothes washing machines and dryers	40
UEENEEJ157A	Service electrical heating appliances	60
UEENEEJ158A	Service dishwasher machines	40
UEENEEJ159A	Service gas heating appliances	40
UEENEEJ162A	Recover, pressure test, evacuate, charge and leak test refrigerants - appliances	50
UEENEEJ170A	Diagnose and rectify faults in air conditioning and refrigeration control systems	70
UEENEEJ173A	Service and repair microwave ovens	40
UEENEEJ194A	Solve problems in low voltage refrigeration circuits	40
UEENEEJ195A	Establish the basic operating conditions of vapour compression systems - appliances	50
UEENEEM019A	Attend to breakdowns in hazardous areas — coal mining	20
UEENEEM020A	Attend to breakdowns in hazardous areas — gas atmospheres	20
UEENEEM021A	Attend to breakdowns in hazardous areas — dust atmospheres	20
UEENEEM022A	Attend to breakdowns in hazardous areas — pressurisation	20
UEENEEM027A	Maintain equipment in hazardous areas — coal mining	60
UEENEEM028A	Maintain equipment in hazardous areas — gas atmospheres	60
UEENEEM029A	Maintain equipment in hazardous areas — dust atmospheres	60
UEENEEM030A	Maintain equipment in hazardous areas — pressurisation	60

UEENEEM031A	Overhaul and repair of explosion-protected equipment — coal mining	60
UEENEEM032A	Overhaul and repair of explosion-protected equipment — flameproof enclosures	60
UEENEEM033A	Overhaul and repair of explosion-protected equipment — gas atmospheres	60
UEENEEM034A	Overhaul and repair of explosion-protected equipment — dust atmospheres	40
UEENEEM060A	Carry out overhaul and repair of explosion-protected equipment — coal mining	60
UEENEEM061A	Carry out overhaul and repair of explosion-protected equipment — flameproof enclosures	60
UEENEEM062A	Carry out overhaul and repair of explosion-protected equipment — gas atmospheres	60
UEENEEM063A	Carry out overhaul and repair of explosion-protected equipment — dust atmospheres	60
UEENEEM070A	Repair reeling, trailing and flexible cables	60
UEENEEM071A	Test reeling, trailing and flexible cables	60
UEENEEM072A	Inspect and fit plugs/couplers for reeling, trailing and flexible cables	60
UEENEEM073A	Verify compliance of repaired reeling, trailing and flexible cables	60
UEENEEM076A	Use and maintain the integrity of a portable gas detection device	20
UEENEEM077A	Install and maintain the integrity of fixed gas detection equipment	20
UEENEEM080A	Report on the integrity of explosion-protected equipment in a hazardous area	20
UEENEEN102A	Assemble and wire internal electrical rail signalling equipment	30
UEENEEN104A	Test copper rail signalling cables	20
UEENEEN121A	Repair rail signalling power and control cables	40
UEENEEM010A	Disconnect - reconnect appliances connected to low voltage installation wiring	60
UEENEEM011A	Disconnect - reconnect neon signs connected to low voltage installation wiring	60
UEENEEM014A	Disconnect - reconnect water heaters connected to low voltage installation wiring	60
UEENEEM016A	Locate and rectify faults in low voltage appliances using set procedures	20

UEENEOP019A	Locate and rectify faults in low voltage water heaters using set procedures	20
UEENEOP021A	Disconnect - reconnect explosion-protected appliances and control devices connected to low voltage installation wiring	60
UEENEOP022A	Disconnect and reconnect 3.3 kV electric propulsion components of self-propelled earth moving vehicles	60
UEENEOP023A	HV Flexible Cables and Plugs	40
UETTDRIS43A	Perform low voltage field switching operation to a given schedule	50
UETTDRIS44A	Perform HV field switching operation to a given schedule	40
UETTDRIS47A	Sample, test, filter and reinstate insulating oil	40
UETTDRIS67A	Solve problems in energy supply network equipment	80
UETTDRIS68A	Solve problems in energy supply network protection equipment and systems	40
UETTDRSB29A	Maintain capacitor bank equipment for voltage regulation	40
UETTDRSB39A	Perform power system substation switching operation to a given schedule	50

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.

UEE40111 Certificate IV in Computer Systems

Modification History

Release	Action	Core/Elective	Details	Points
2	Add	Group B	UETTDRIS67A Solve problems in energy supply network equipment	80
2	Add	Group B	UETTDRIS68A Solve problems in energy supply network protection equipment and systems	40
2	Add	Group B	UETTDRIS44A Perform HV field switching operation to a given schedule	60
2	Edit		Edit Name to reflect correct Unit title UEENEED104A Use engineering applications software on personal computers	40
3	Remove	Group D	UEENEED115A - Administer computer networks	80
4	Remove	Group C	UEENEEH189A Design electronic printed circuit boards	40
4	Edit	Core	Correct title of UEENEEK145A - Implement and monitor energy sector environmental and sustainable policies and procedures	20

Description

Scope

This qualification provides competencies to select, install, commission, fault find and maintain data processing, communications and control aspects of systems used for monitoring and control of systems for access, surveillance, safety and effective operation of manufacturing, buildings, structures, premises and precincts.

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

Core Competency Standard Units		Weighting Points
All Core competency standard units to be achieved		
UEENEED102A	Assemble, set-up and test computing devices	80
UEENEED104A	Use engineering applications software on personal computers	40
UEENEED112A	Support computer hardware and software for engineering applications	120
UEENEED143A	Install and configure a client computer operating system and software	40
UEENEED146A	Set up and configure basic local area network (LAN)	80
UEENEEE038B	Participate in development and follow a personal competency development plan	20
UEENEEE101A	Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
UEENEEE102A	Fabricate, assemble and dismantle utilities industry components	40
UEENEEE103A	Solve problems in ELV single path circuits	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
UEENEEK145A	Implement and monitor energy sector environmental and sustainable policies and procedures	20
Total points in core		600

Elective Competency Standard Units		
Complete Elective units to achieve a total of weighting of 680 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 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	Qualification Elective Units	0 500
C	Qualification Elective Units You may select all your elective units from this Group	180 680

Group A – Imported and Common Elective Units		Weighting Points
You may complete units to a maximum weighting of 220		
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
ICTTEN4210A	Implement and troubleshoot enterprise routers and switches	100
ICTTEN4211A	Design, install and configure an internetwork	100
ICTTEN4212A	Apply advanced routing protocols to network design	80
ICTTEN4213A	Configure and troubleshoot advanced network switching	80
ICTTEN4214A	Install and maintain a wide area network	80
	Imported units from other training packages and/or	Up to 220

	<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 4. If units have not been 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>	points
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Group B – Qualification Elective Units You may complete units to a maximum weighting of 500		Weighting Points
UEENEEA101A	Assemble electronic components	40
UEENEEA102A	Select electronic components for assembly	20
UEENEEA104A	Modify electronic sub assemblies	40
UEENEEA106A	Use lead-free soldering techniques	40
UEENEEA129A	Develop web pages for engineering applications	40
UEENEEA130A	Select, install, configure and test multimedia components	40
UEENEEA153A	Set up, configure and test biometric devices	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/cabling and terminate accessories for extra-low voltage (ELV) circuits	40
UEENEEE119A	Solve problems in multiple path extra low voltage (ELV) a.c. circuits	40
UEENEEE123A	Solve basic problems electronic and digital equipment and circuits	80
UEENEEE179A	Identify and select components, accessories and materials for energy sector work activities	20
UEENEEF102A	Install and maintain cabling for multiple access to telecommunication services	120
UEENEEF104A	Install and modify performance data communication copper cabling	40
UEENEEF105A	Install and modify optical fibre performance data communication cabling	40
UEENEEF107A	Set up and configure the wireless capabilities of communications and data storage devices	40
UEENEEF108A	Select and arrange equipment for wireless communication networks	40
UEENEEF109A	Install and connect data and voice communication equipment	40
UEENEEF110A	Select and arrange data and voice equipment for local area networks	40

UEENEEH101A	Repair basic computer equipment faults by replacement of modules/sub-assemblies	40
UEENEEH102A	Repairs basic electronic apparatus faults by replacement of components	40
UEENEEH103A	Repair routine business equipment faults	120
UEENEEH111A	Troubleshoot single phase input d.c. power supplies	40
UEENEEH112A	Troubleshoot digital sub-systems	80
UEENEEH113A	Troubleshoot amplifiers in an electronic apparatus	80
UEENEEH114A	Troubleshoot resonance circuits in an electronic apparatus	80
UEENEEH115A	Develop software solutions for microcontroller based systems	60
UEENEEH139A	Troubleshoot basic amplifier circuits	40
UEENEEH150A	Assemble and set up basic security systems	80
UEENEEH151A	Install large security systems	100
UEENEEH152A	Enter instructions and test wired and wireless security systems	40
UEENEEH166A	Troubleshoot microcontroller based hardware systems	40
UEENEEH169A	Solve problems in basic electronic circuits	100
UEENEEI101A	Use instrumentation drawings, specification, standards and equipment manuals	40
UEENEEI116A	Assemble, enter and verify operating instructions in microprocessor equipped devices	20

Group C – Qualification Elective Units		Weighting Points
You must complete units to a minimum weighting of 180 You may select all your elective units from this Group		
UEENEEC004B	Prepare specifications for the supply of materials and equipment for electrotechnology projects	40
UEENEEC005B	Estimate electrotechnology projects	40
UEENEED103A	Evaluate and modify object oriented code programs	40
UEENEED113A	Install and administer Unix based networked computers	80
UEENEED116A	Develop computer network services	120
UEENEED117A	Install and configure network systems for internetworking	120

UEENEED124A	Integrate multiple computer operating systems on a client server local area network	80
UEENEED154A	Analyse and implement biometric measuring techniques and applications	120
UEENEEE110A	Develop and implement energy sector maintenance programs	60
UEENEEE114A	Supervise and coordinate energy sector work activities	40
UEENEEI155A	Develop structured programs to control external devices	40

Note:

1. Pre-requisite 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 pre-requisite pathway for the progression to achieve particular competencies or qualification at a higher level.

END OF QUALIFICATION

Custom Content Section

Not applicable.

UEE40211 Certificate IV in Electrical - Data and Voice Communications

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
2	Update	Group A	HLTCPR211A Perform CPR	10

3	Edit	Core	Edit Name to reflect correct Unit title UEENEEK145A Implement and monitor energy sector environmental and sustainable policies and procedures	20
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4	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
4	Edit	Core	Correct title of UEENEEE101A - Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
4	Edit	Core	Correct title of UEENEEE102A - Fabricate, assemble and dismantle utilities industry components	40
4	Edit	Elective	Correct title of UEENEED101A - Use computer applications relevant to a workplace	20
4	Edit	Elective	Correct title of UEENEED102A - Assemble, set-up and test computing devices	80
4	Edit	Elective	Correct title of UEENEEE009B - Comply with scheduled and preventative maintenance program processes	20
4	Edit	Elective	Correct title of UEENEEE020B - Provide basic instruction in the use of electrotechnology apparatus	20
4	Edit	Elective	Correct title of UEENEEE114A - Supervise and coordinate energy sector work activities	40
4	Edit	Elective	Correct title of UEENEEE192A - Produce detailed electrotechnology /utilities drawings using computer aided design equipment and software	60
4	Edit	Elective	Correct title of UEENEED105A - Install and modify	40

			optical fibre performance data communication cabling	
4	Edit	Elective	Correct title of UEENEEF106A - Solve problems in voice and data communications circuits	40
4	Edit	Elective	Correct title of UEENEEF107A - Set up and configure the wireless capabilities of communications and data storage devices	40
4	Edit	Elective	Correct title of UEENEEF108A - Select and arrange equipment for wireless communication networks	40
4	Edit	Elective	Correct title of UEENEEF109A - Install and connect data and voice communication equipment	40
4	Edit	Elective	Correct title of UEENEEF110A - Select and arrange data and voice equipment for local area networks	40
4	Edit	Elective	Correct title of UEENEEF111A - Test, report and rectify faults in data and voice installations	40
4	Edit	Elective	Correct title of UEENEEF112A - Install aerial telecommunication cables	40

Description

Scope

This qualification provides competencies to select, install, commission, fault find and maintain electrical and communications systems and equipment in building and premises. It includes ERAC requirements for an 'Electrician's licence' and ACMA requirements for Open Cabler registration.

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

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
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
UEENEEF102A	Install and maintain cabling for multiple access to telecommunication services	120
UEENEEF104A	Install and modify performance data communication copper cabling	40
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

Core Competency Standard Units All Core competency standard units to be achieved		Weighting Points
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
UEENEEK145A	Implement and monitor energy sector environmental and sustainable policies and procedures	20
Total points in core		1120

Elective Competency Standard Units Complete Elective units to achieve a total of weighting of 160 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 4. If units have not been assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0
B	Qualification Elective Units	80
C	Qualification Elective Units You may select all your elective units from this Group	80
		160

Group A – Imported and Common Elective Units You may complete units to a maximum weighting of 80		Weighting Points
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
CPCCOHS1001A	Work safely in the construction industry	10
HLTAID001	Provide cardiopulmonary resuscitation	10
	<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 4. 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>	Up to 80 points

Group B – Qualification Elective Units You may complete units to a maximum weighting of 80		Weighting Points
UEENEED102A	Assemble, set-up and test computing devices	80
UEENEED104A	Use engineering applications software on personal computers	40
UEENEED146A	Set up and configure basic local area network (LAN)	80
UEENEEE121A	Plan an integrated cabling installation system	40
UEENEED105A	Install and modify optical fibre performance data communication cabling	40
UEENEED106A	Solve problems in voice and data communications circuits	40
UEENEED107A	Set up and configure the wireless capabilities of communications and data storage devices	40
UEENEED108A	Select and arrange equipment for wireless communication networks	40
UEENEED109A	Install and connect data and voice communication equipment	40
UEENEED110A	Select and arrange data and voice equipment for local area networks	40
UEENEED111A	Test, report and rectify faults in data and voice installations	40
UEENEED112A	Install aerial telecommunication cables	40
UEENEED113A	Install underground communication cables	40
UEENEED114A	Set up and configure basic data communication systems	40
UEENEED115A	Assemble and connect telecommunication frames and cabinets	60
UEENEED140A	Plan the electrical installation of integrated systems	20
UEENEED141A	Develop electrical integrated systems	20

Group C – Qualification Elective Units You must complete units to a minimum weighting of 80 You may select all your elective units from this Group		Weighting Points
UEENEED004B	Prepare specifications for the supply of materials and equipment for electrotechnology projects	40

UEENEEC005B	Estimate electrotechnology projects	40
UEENEEC009B	Provide quotations for inspection and compliance audit services	80
UEENEEE114A	Supervise and coordinate energy sector work activities	40
UEENEEE192A	Produce detailed electrotechnology /utilities drawings using computer aided design equipment and software	60
UEENEEI142A	Develop an electrical integrated system interface for access through a touch screen	20
UEENEEI143A	Develop access control of electrical integrated systems using logic-based programming tools	20
UEENEEI144A	Develop interfaces for multiple access methods to monitor, schedule and control an electrical integrated system	20

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

UEE40311 Certificate IV in Installation Inspection and Audits

Modification History

Release	Action	Core/Elective	Details	Points
2	Edit		Edit Name to reflect correct Unit title UEENEEI104A Use engineering applications software on personal computers	40
2	Update	Group A	HLTCPR211A Perform CPR	10

3	Edit	Core	Edit Name to reflect correct Unit title UEENEEK145A Implement and monitor energy sector environmental and sustainable policies and procedures	20
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4	Update	Elective	HLTAID001 - Provide cardiopulmonary	10
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			resuscitation	
4	Edit	Core	Correct title of UEENEEE101A - Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
4	Edit	Core	Correct title of UEENEEE102A - Fabricate, assemble and dismantle utilities industry components	40
4	Edit	Elective	Correct title of UEENEEED101A - Use computer applications relevant to a workplace	20
4	Edit	Elective	Correct title of UEENEEEG113A - Install and maintain emergency safety systems	60
4	Edit	Elective	Correct title of UEENEEEG116A - Diagnose and rectify faults in traction lift systems	80
4	Edit	Elective	Correct title of UEENEEEG119A - Maintain operation of electrical marine equipment and systems	60
4	Edit	Elective	Correct title of UEENEEEG120A - Select and arrange equipment for special LV electrical installations	60
4	Edit	Elective	Correct title of UEENEEEG125A - Plan electrical installations with a low voltage demand up to 400 A per phase	40
4	Edit	Elective	Correct title of UEENEEEG126A - Install and maintain field power and distribution systems with a low voltage demand up to 200 A per phase	40
4	Edit	Elective	Correct title of UEENEEEG128A - Plan low voltage switchboard and control panel layouts	40
4	Edit	Elective	Correct title of UEENEEEG132A - Carry out low voltage electrical field testing and report findings	60
4	Edit	Elective	Correct title of UEENEEEG168A - Diagnose and rectify faults in complex lift systems	40
4	Edit	Elective	Correct title of UEENEEEG172A - Investigate and report on electrical incidents and causes	60
4	Edit	Elective	Correct title of UEENEEI101A - Use instrumentation drawings, specification, standards and equipment manuals	40
4	Edit	Elective	Correct title of UEENEEK148A - Install, configure and commission LV grid connected photovoltaic power systems	40

Description

Scope

This qualification provides competencies in mandatory and contractual inspections of electrical systems and auditing of entities for compliance with electrical safety requirements. It includes ERAC requirements for an 'Electrician's licence'.

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

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
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
UEENEEG122A	Conduct compliance inspection of single phase LV electrical installations	60
UEENEEG123A	Conduct compliance inspection of LV electrical installations with demand exceeding 100 A per phase	40
UEENEEK145A	Implement and monitor energy sector environmental and sustainable policies and procedures	20
Total points in core		1060

Elective Competency Standard Units

Complete Elective units to achieve a total of weighting of 220 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 4. If units have not been assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0	80
B	Qualification Elective Units	0	110
C	Qualification Elective Units You may select all your elective units from this Group	110	220

Group A – Imported and Common Elective Units You may complete units to a maximum weighting of 80		Weighting Points
UEENEEC001B	Maintain documentation	20
UEENEEC010B	Deliver a service to customers	20
UEENEED101A	Use computer applications relevant to a workplace	20
CPCCOHS1001A	Work safely in the construction industry	10
HLTAID001	Provide cardiopulmonary resuscitation	10
	<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 4. 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>	Up to 80 points

Group B – Qualification Elective Units		Weighting Points
You may complete units to a maximum weighting of 110		
UEENEED104A	Use engineering applications software on personal computers	40
UEENEED113A	Install and maintain emergency safety systems	60
UEENEED116A	Diagnose and rectify faults in traction lift systems	80
UEENEED118A	Maintain operation of electrical mining equipment and systems	60
UEENEED119A	Maintain operation of electrical marine equipment and systems	60
UEENEED120A	Select and arrange equipment for special LV electrical installations	60
UEENEED126A	Install and maintain field power and distribution systems with a low voltage demand up to 200 A per phase	40
UEENEED171A	Install, set up and commission interval metering	20
UEENEED101A	Use instrumentation drawings, specification, standards and equipment manuals	40
UEENEED140A	Plan the electrical installation of integrated systems	20
UEENEED141A	Develop electrical integrated systems	20
UEENEED125A	Solve basic problems in photovoltaic energy apparatus and systems	20
UEENEED148A	Install, configure and commission LV grid connected photovoltaic power systems	40
UEENEED038A	Conduct testing of hazardous areas installations — coal mining	40
UEENEED039A	Conduct testing of hazardous areas installations — gas atmospheres	40
UEENEED040A	Conduct testing of hazardous areas installations — dust atmospheres	40
UEENEED041A	Conduct testing of hazardous area installations — pressurisation	40
UEENEED042A	Conduct visual inspection of hazardous areas installations	40
UEENEED080A	Report on the integrity of explosion-protected equipment in a hazardous area	20

Group C – Qualification Elective Units	Weighting
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You must complete units to a minimum weighting of 110 You may select all your elective units from this Group		Points
UEENEEG121A	Verify compliance and functionality of special LV electrical installations	40
UEENEEG124A	Conduct compliance inspection of special LV electrical installations	60
UEENEEG125A	Plan LV electrical installations with a demand up to 400A per phase	40
UEENEEG128A	Plan low voltage switchboard and control panel layouts	40
UEENEEG132A	Carry out low voltage electrical field testing and report findings	60
UEENEEG162A	Set up and place LV electrical apparatus and associated circuits into service	40
UEENEEG168A	Diagnose and rectify faults in complex lift systems	40
UEENEEG172A	Investigate and report on electrical incidents and causes	60
UEENEEG175A	Develop compliance policies and plans to conduct a electrical contracting business	80

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.

UEE40411 Certificate IV in Electrical - Instrumentation

Modification History

Release	Action	Core/Elective	Details	Points
2	Edit		Edit Name to reflect correct Unit title UEENEEI104A Use engineering applications software on personal computers	40
2	Edit		Edit Name to Reflect correct Unit Title UEENEEI124A Fault find and repair analogue circuits and components in electronic control systems	
2	Update	Group A	HLTCPR211A Perform CPR	10

3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI102A Solve problems in pressure measurement components and systems	40
3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI103A Solve problems in density_level measurement components and systems	40
3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI104A Solve problems in flow measurement components and systems	40
3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI105A Solve problems in temperature measurement components and systems	40
3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI106A Set up and adjust PID control loops	40
3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI110A Set up and adjust advanced PID process control loops	40
3	Edit	Group C	Edit Name to reflect correct Unit title UEENEEI151A Develop, enter and verify word and analogue control programs for programmable logic controllers.	60
3	Edit	Core	Edit Name to reflect correct Unit title UEENEEK145A Implement and monitor energy sector environmental and sustainable policies and procedures	20

4	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
4	Edit	Core	Correct title of UEENEEE101A - Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
4	Edit	Core	Correct title of UEENEEE102A - Fabricate, assemble and dismantle utilities industry components	40
4	Edit	Core	Correct title of UEENEEI101A - Use instrumentation drawings, specification, standards and equipment manuals	40
4	Edit	Core	Correct title of UEENEEI103A - Solve problems in density/level measurement components and systems	40
4	Edit	Elective	Correct title of UEENEEI101A - Use computer applications relevant to a workplace	20
4	Edit	Elective	Correct title of UEENEEG119A - Maintain operation of electrical marine equipment and systems	60
4	Edit	Elective	Correct title of UEENEEH102A - Repairs basic electronic apparatus faults by replacement of components	40
4	Edit	Elective	Correct title of UEENEEI107A - Install instrumentation and control cabling and tubing	20
4	Edit	Elective	Correct title of UEENEEI108A - Install instrumentation and control apparatus and associated equipment	20
4	Edit	Elective	Correct title of UEENEEI116A - Assemble, enter and verify operating instructions in microprocessor equipped devices	20
4	Edit	Elective	Correct title of UEENEEI119A - Set up industrial field control devices	60
4	Edit	Elective	Correct title of UEENEEI126A - Provide solutions to pneumatic-hydraulic system operations	80
4	Edit	Elective	Correct title of UEENEEI148A - Solve problems in single phase electronic power control circuits	60
4	Edit	Elective	Correct title of UEENEEI149A - Solve problems in polyphase electronic power control circuits	60

Description

Scope

This qualification provides competencies to select, install, commission, fault find and maintain electrical and instrumentation equipment in buildings and premises and instrumentation systems and core instrumentation equipment for process and control. It includes ERAC requirements for an 'Electrician's licence'.

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

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
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
UEENEEI101A	Use instrumentation drawings, specification, standards and equipment manuals	40
UEENEEI102A	Solve problems in pressure measurement components and systems	40
UEENEEI103A	Solve problems in density/level measurement components and systems	40
UEENEEI104A	Solve problems in flow measurement components and systems	40
UEENEEI105A	Solve problems in temperature measurement components and systems	40
UEENEEK145A	Implement and monitor energy sector environmental and sustainable policies and procedures	20
Total points in core		1160

Elective Competency Standard Units

Complete Elective units to achieve a total of weighting of 120 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 4. If units have not been assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0	60

Elective Competency Standard Units		
Complete Elective units to achieve a total of weighting of 120 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 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
B	Qualification Elective Units	0
C	Qualification Elective Units You may select all your elective units from this Group	60

Group A – Imported and Common Elective Units		Weighting Points
You may complete units to a maximum weighting of 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
CPCCOHS1001A	Work safely in the construction industry	10
HLTAID001	Provide cardiopulmonary resuscitation	10
	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	Up to 60 points

	<p>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>	
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Group B – Qualification Elective Units		Weighting Points
You may complete units to a maximum weighting of 60		
UEENEED104A	Use engineering applications software on personal computers	40
UEENEED118A	Maintain operation of electrical mining equipment and systems	60
UEENEED119A	Maintain operation of electrical marine equipment and systems	60
UEENEED102A	Repairs basic electronic apparatus faults by replacement of components	40
UEENEED111A	Troubleshoot single phase input d.c. power supplies	40
UEENEED106A	Set up and adjust PID control loops	40
UEENEED107A	Install instrumentation and control cabling and tubing	20
UEENEED108A	Install instrumentation and control apparatus and associated equipment	20
UEENEED110A	Set up and adjust advanced PID process control loops	40
UEENEED111A	Find and rectify faults in process final control elements	40
UEENEED113A	Setup and configure human-machine interface (HMI) and industrial networks	60
UEENEED116A	Assemble, enter and verify operating instructions in microprocessor equipped devices	20
UEENEED140A	Plan the electrical installation of integrated systems	20
UEENEED141A	Develop electrical integrated systems	20
UEENEED150A	Develop, enter and verify discrete control programs for programmable controllers	60
UEENEEM019A	Attend to breakdowns in hazardous areas — coal mining	20
UEENEEM020A	Attend to breakdowns in hazardous areas — gas atmospheres	20
UEENEEM021A	Attend to breakdowns in hazardous areas — dust atmospheres	20
UEENEEM022A	Attend to breakdowns in hazardous areas — pressurisation	20
UEENEEM023A	Install explosion-protected equipment and wiring systems — coal mining	60

UEENEEM024A	Install explosion-protected equipment and wiring systems — gas atmospheres	60
UEENEEM025A	Install explosion-protected equipment and wiring systems — dust atmospheres	60
UEENEEM026A	Install explosion-protected equipment and wiring systems — pressurisation	60
UEENEEM027A	Maintain equipment in hazardous areas — coal mining	60
UEENEEM028A	Maintain equipment in hazardous areas — gas atmospheres	60
UEENEEM029A	Maintain equipment in hazardous areas — dust atmospheres	60
UEENEEM030A	Maintain equipment in hazardous areas — pressurisation	60
UEENEEM038A	Conduct testing of hazardous areas installations — coal mining	40
UEENEEM039A	Conduct testing of hazardous areas installations — gas atmospheres	40
UEENEEM040A	Conduct testing of hazardous areas installations — dust atmospheres	40
UEENEEM041A	Conduct testing of hazardous area installations — pressurisation	40
UEENEEM042A	Conduct visual inspection of hazardous areas installations	40
UEENEEM076A	Use and maintain the integrity of a portable gas detection device	20
UEENEEM077A	Install and maintain the integrity of fixed gas detection equipment	20
UEENEEM080A	Report on the integrity of explosion-protected equipment in a hazardous area	20

Group C – Qualification Elective Units		Weighting Points
You must complete units to a minimum weighting of 60 You may select all your elective units from this Group		
UEENEI119A	Set up industrial field control devices	60
UEENEI120A	Provide solutions to problems in industrial control systems	60
UEENEI124A	Fault find and repair analogue circuits and components in electronic control systems	60
UEENEI125A	Provide solutions to fluid circuit operations	60

UEENEEI126A	Provide solutions to pneumatic-hydraulic system operations	80
UEENEEI139A	Diagnose and rectify faults in digital controls systems	60
UEENEEI148A	Solve problems in single phase electronic power control circuits	60
UEENEEI149A	Solve problems in polyphase electronic power control circuits	60
UEENEEI151A	Develop, enter and verify word and analogue control programs for programmable logic controllers.	60
UEENEEI152A	Develop, enter and verify programs in Supervisory Control and Data Acquisition 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.

END OF QUALIFICATION

Custom Content Section

Not applicable.

UEE40511 Certificate IV in Electrical - Air-conditioning Split Systems

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
2	Update	Group A	HLTCPR211A Perform CPR	10

3	Edit	Core	Edit Name to reflect correct Unit title UEENEEK145A Implement and monitor energy sector environmental and sustainable policies and procedures	20
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4	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
4	Edit	Core	Correct title of UEENEEE101A - Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
4	Edit	Core	Correct title of UEENEEE102A - Fabricate, assemble and dismantle utilities industry components	40
4	Edit	Core	Correct title of UEENEEJ102A - Prepare and connect refrigerant tubing and fittings	30
4	Edit	Elective	Correct title of UEENEED101A - Use computer applications relevant to a workplace	20
4	Edit	Elective	Correct title of UEENEEE114A - Supervise and coordinate energy sector work activities	40
4	Edit	Elective	Correct title of UEENEEI116A - Assemble, enter and verify operating instructions in microprocessor equipped devices	20

Description

Scope

This qualification provides competencies to select, install, commission, fault find and maintain electrical systems and equipment in buildings and premises and split air-conditioning systems to a prescribed routine where the maximum plant capacity for each system does not exceed 18 kW_r. It includes ERAC requirements for an ‘Electrician’s licence’ and regulatory requirements for purchasing and handling refrigerants for split systems. Split systems include wall hung, floor and ceiling suspended, cassette and ducted fan coil split systems. This qualification excludes competencies required for service, repair, maintenance, or the safe and proper installation of commercial refrigeration and air conditioning plant and equipment.

Note:

1. The letter “r” denotes “refrigeration” or cooling capacity, not electrical input power.
2. The Ozone Protection and Synthetic Greenhouse Gas Legislation Amendment Bill 2003 and the Ozone Protection and Synthetic Gas Management Regulations apply to this qualification. Prior to planning the delivery of any training and/or assessment activities all legislative and regulatory requirements shall be identified and included.

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

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
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
UEENEEJ102A	Prepare and connect refrigerant tubing and fittings	30
UEENEEJ105A	Position, assemble and start up single head split air conditioning and water heating heat pump systems	70
UEENEEJ172A	Recover, pressure test, evacuate, charge and leak test refrigerants - split systems	60
UEENEEK145A	Implement and monitor energy sector environmental and sustainable policies and procedures	20
Total points in core		1120

Elective Competency Standard Units

Complete Elective units to achieve a total of weighting of 160 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 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	80
B Qualification Elective Units	0	80
C Qualification Elective Units You may select all your elective units from this Group	80	160

Group A – Imported and Common Elective Units You may complete units to a maximum weighting of 80		Weighting Points
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
CPCCOHS1001A	Work safely in the construction industry	10
HLTAID001	Provide cardiopulmonary resuscitation	10
	<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 4. 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>	Up to 80 points

Group B – Qualification Elective Units You may complete units to a maximum weighting of 80		Weighting Points
UEENEED104A	Use engineering applications software on personal computers	40
UEENEEI116A	Assemble, enter and verify operating instructions in microprocessor equipped devices	20
UEENEEI150A	Develop, enter and verify discrete control programs for programmable controllers	60
UEENEEJ103A	Establish the basic operating conditions of vapour compression systems	60
UEENEEJ104A	Establish the basic operating conditions of air conditioning systems	20
UEENEEJ174A	Apply safety awareness and legal requirements for hydrocarbon refrigerants	10

Group C – Qualification Elective Units You must complete units to a minimum weighting of 80 You may select all your elective units from this Group		Weighting Points
UEENEEE114A	Supervise and coordinate energy sector work activities	40
UEENEEG122A	Conduct compliance inspection of single phase LV electrical installations	60
UEENEEG123A	Conduct compliance inspection of LV electrical installations with demand exceeding 100 A per phase	40
UEENEEJ192A	Analyse the psychrometric performance of HVAC/R systems	50
UEENEEJ193A	Analyse the thermodynamic performance of HVAC/R systems	40

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.

UEE40611 Certificate IV in Electrotechnology - Systems Electrician

Modification History

Release	Action	Core/Elective	Details	Points
2	Add	Group B	UETTDRIS67A Solve problems in energy supply network equipment	80
2	Add	Group B	UETTDRIS68A Solve problems in energy supply network protection equipment and systems	40
2	Add	Group B	UETTDRIS44A Perform HV field switching operation to a given schedule	60
2	Edit		Edit Name to reflect correct Unit title UEENEED104A Use engineering applications software on personal computers	40
	Edit		Edit Name to Reflect correct Unit Title UEENEEI124A Fault find and repair analogue circuits and components in electronic control systems	
2	Update	Group A	HLTCPR211A Perform CPR	10

3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI102A Solve problems in pressure measurement components and systems	40
3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI103A Solve problems in density_level measurement components and systems	40
3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI104A Solve problems in flow measurement components and systems	40
3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI105A Solve problems in temperature measurement components and systems	40
3	Edit	Group C	Edit Name to reflect correct Unit title UEENEEI151A Develop, enter and verify word and analogue control programs for programmable logic controllers.	60
3	Edit	Core	Edit Name to reflect correct Unit title UEENEEK145A Implement and monitor energy sector environmental and sustainable policies and	20

			procedures	
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4	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
4	Edit	Core	Correct title of UEENEEE101A - Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
4	Edit	Core	Correct title of UEENEEE102A - Fabricate, assemble and dismantle utilities industry components	40
4	Edit	Elective	Correct title of UEENEEE121A - Plan an integrated cabling installation system	40
4	Edit	Elective	Correct title of UEENEEG110A - Find and repair faults in LV d.c. electrical apparatus and circuits	60
4	Edit	Elective	Correct title of UEENEEG111A - Carry out basic repairs to electrical components and equipment	40
4	Edit	Elective	Correct title of UEENEEG113A - Install and maintain emergency safety systems	60
4	Edit	Elective	Correct title of UEENEEG116A - Diagnose and rectify faults in traction lift systems	80
4	Edit	Elective	Correct title of UEENEEG119A - Maintain operation of electrical marine equipment and systems	60
4	Edit	Elective	Correct title of UEENEEG120A - Select and arrange equipment for special LV electrical installations	60
4	Edit	Elective	Correct title of UEENEEG125A - Plan electrical installations with a low voltage demand up to 400 A per phase	40
4	Edit	Elective	Correct title of UEENEEG126A - Install and maintain field power and distribution systems with a low voltage demand up to 200 A per phase	40
4	Edit	Elective	Correct title of UEENEEG128A - Plan low voltage switchboard and control panel layouts	40
4	Edit	Elective	Correct title of UEENEEG129A - Overhaul and repair major switchgear and controlgear	60
4	Edit	Elective	Correct title of UEENEEG132A - Carry out low voltage electrical field testing and report findings	60
4	Edit	Elective	Correct title of UEENEEG153A - Rewind three phase low voltage induction machines	60
4	Edit	Elective	Correct title of UEENEEG155A - Rewind HV three phase induction machines rated for voltages to 3.3 kV	60
4	Edit	Elective	Correct title of UEENEEG156A - Rewind HV three	60

			phase induction machines rated for voltages above 3.3 kV	
4	Edit	Elective	Correct title of UEENEEG159A - Conduct mechanical tests on electrical machines and components	40
4	Edit	Elective	Correct title of UEENEEG164A - Repair and maintain mechanical components of electrical machines	40
4	Edit	Elective	Correct title of UEENEEG165A - Maintain and service traction lifts systems and equipment	40
4	Edit	Elective	Correct title of UEENEEG166A - Install and maintain escalators, moving walks and treadways	40
4	Edit	Elective	Correct title of UEENEEG167A - Align and install traction lift equipment	20
4	Edit	Elective	Correct title of UEENEEG168A - Diagnose and rectify faults in complex lift systems	40
4	Edit	Elective	Correct title of UEENEEG172A - Investigate and report on electrical incidents and causes	60
4	Edit	Elective	Correct title of UEENEEG177A - Select low voltage power factor correction equipment	40
4	Edit	Elective	Correct title of UEENEEG185A - Select effective and efficient light sources and luminaries for given locations and designs	60
4	Edit	Elective	Correct title of UEENEEH102A - Repairs basic electronic apparatus faults by replacement of components	40
4	Edit	Elective	Correct title of UEENEEH150A - Assemble and set up basic security systems	80
4	Edit	Elective	Correct title of UEENEEI101A - Use instrumentation drawings, specification, standards and equipment manuals	40
4	Edit	Elective	Correct title of UEENEEI103A - Solve problems in density/level measurement components and systems	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 UEENEEI119A - Set up industrial field control devices	60
4	Edit	Elective	Correct title of UEENEEI126A - Provide solutions to pneumatic-hydraulic system operations	80

4	Edit	Elective	Correct title of UEENEEI148A - Solve problems in single phase electronic power control circuits	60
4	Edit	Elective	Correct title of UEENEEI149A - Solve problems in polyphase electronic power control circuits	60
4	Edit	Elective	Correct title of UEENEEK135A - Design grid connected photovoltaic power supply systems	60
4	Edit	Elective	Correct title of UEENEEK148A - Install, configure and commission LV grid connected photovoltaic power systems	60
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 properties and enterprises	40
4	Edit	Elective	Correct title of UEENEEN104A - Test copper rail signalling cables	20

5	Remove	Group C	UEENEEG197A - Apply currency of safe working practices and compliance verification of electrical installations	20
5	Remove	Group C	UEENEEG198A - Apply compliance requirements to all aspects of electrical work	20

Description

Scope

This qualification provides competencies to select, install, commission, fault find and maintain electrical systems and equipment with options, typically in Explosion protection; Electrical machines; Electrical inspection; Safety auditing; Contracting; Lifts; Energy supply/distribution. It includes ERAC requirements for an 'Electrician's licence'.

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

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
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
UEENEEK145A	Implement and monitor energy sector environmental and sustainable policies and procedures	20
Total points in core		960

Elective Competency Standard Units

Complete Elective units to achieve a total of weighting of 320 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 4. If units have not been assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0	100
B	Qualification Elective Units	0	100
C	Qualification Elective Units You may select all your elective units from this Group	220	320

Group A – Imported and Common Elective Units

You may complete units to a maximum weighting of 100

		Weighting Points
UEENECC001B	Maintain documentation	20
UEENECC002B	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
CPCCOHS1001A	Work safely in the construction industry	10
HLTAID001	Provide cardiopulmonary resuscitation	10
	<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 4. 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>	Up to 100 points

Group B – Qualification Elective Units You may complete units to a maximum weighting of 100		Weighting Points
UEENEEA110A	Assemble, mount and connect control gear and switchgear	40
UEENEEA112A	Fabricate and assemble bus bars	40
UEENEEA113A	Mount and wire control panel equipment	40
UEENEEED104A	Use engineering applications software on personal computers	40
UEENEEEEE121A	Plan an integrated cabling installation system	40
UEENEEEF102A	Install and maintain cabling for multiple access to telecommunication services	120
UEENEEEF104A	Install and modify performance data communication copper cabling	40
UEENEEEG110A	Find and repair faults in LV d.c. electrical apparatus and circuits	60
UEENEEEG111A	Carry out basic repairs to electrical components and equipment	40
UEENEEEG113A	Install and maintain emergency safety systems	60
UEENEEEG116A	Diagnose and rectify faults in traction lift systems	80
UEENEEEG118A	Maintain operation of electrical mining equipment and systems	60
UEENEEEG119A	Maintain operation of electrical marine equipment and systems	60
UEENEEEG120A	Select and arrange equipment for special LV electrical installations	60
UEENEEEG126A	Install and maintain field power and distribution systems with a low voltage demand up to 200 A per phase	40
UEENEEEG129A	Overhaul and repair major switchgear and controlgear	60
UEENEEEG150A	Wind electrical coils	40
UEENEEEG151A	Place and connect electrical coils	40
UEENEEEG152A	Rewind single phase machines	40
UEENEEEG153A	Rewind three phase low voltage induction machines	60
UEENEEEG154A	Rewind LV direct current machines	60
UEENEEEG157A	Conduct electrical tests on LV electrical machines	40

UEENEEG159A	Conduct mechanical tests on electrical machines and components	40
UEENEEG164A	Repair and maintain mechanical components of electrical machines	40
UEENEEG165A	Maintain and service traction lifts systems and equipment	40
UEENEEG166A	Install and maintain escalators, moving walks and treadways	40
UEENEEG167A	Align and install traction lift equipment	20
UEENEEG171A	Install, set up and commission interval metering	20
UEENEEG181A	Provide advice on effective and energy efficient lighting products	20
UEENEEG182A	Supply effective and efficient lighting products for domestic and small commercial applications	40
UEENEEG183A	Provide advice on the application of energy efficient lighting for ambient and aesthetic effect	20
UEENEEG189A	Install and maintain emergency lighting systems	40
UEENEEH102A	Repairs basic electronic apparatus faults by replacement of components	40
UEENEEH111A	Troubleshoot single phase input d.c. power supplies	40
UEENEEH150A	Assemble and set up basic security systems	80
UEENEEI140A	Plan the electrical installation of integrated systems	20
UEENEEI141A	Develop electrical integrated systems	20
UEENEEI101A	Use instrumentation drawings, specification, standards and equipment manuals	40
UEENEEI102A	Solve problems in pressure measurement components and systems	40
UEENEEI103A	Solve problems in density/level measurement components and systems	40
UEENEEI104A	Solve problems in flow measurement components and systems	40
UEENEEI105A	Solve problems in temperature measurement components and systems	40
UEENEEI116A	Assemble, enter and verify operating instructions in microprocessor equipped devices	20
UEENEEI150A	Develop, enter and verify discrete control programs for programmable controllers	60
UEENEEJ102A	Prepare and connect refrigerant tubing and fittings	30

UEENEEJ103A	Establish the basic operating conditions of vapour compression systems	60
UEENEEJ104A	Establish the basic operating conditions of air conditioning systems	20
UEENEEK125A	Solve basic problems in photovoltaic energy apparatus and systems	20
UEENEEK148A	Install, configure and commission LV grid connected photovoltaic power systems	40
UEENEEM019A	Attend to breakdowns in hazardous areas — coal mining	20
UEENEEM020A	Attend to breakdowns in hazardous areas — gas atmospheres	20
UEENEEM021A	Attend to breakdowns in hazardous areas — dust atmospheres	20
UEENEEM022A	Attend to breakdowns in hazardous areas — pressurisation	20
UEENEEM023A	Install explosion-protected equipment and wiring systems — coal mining	60
UEENEEM024A	Install explosion-protected equipment and wiring systems — gas atmospheres	60
UEENEEM025A	Install explosion-protected equipment and wiring systems — dust atmospheres	60
UEENEEM026A	Install explosion-protected equipment and wiring systems — pressurisation	60
UEENEEM027A	Maintain equipment in hazardous areas — coal mining	60
UEENEEM028A	Maintain equipment in hazardous areas — gas atmospheres	60
UEENEEM029A	Maintain equipment in hazardous areas — dust atmospheres	60
UEENEEM030A	Maintain equipment in hazardous areas — pressurisation	60
UEENEEM038A	Conduct testing of hazardous areas installations — coal mining	40
UEENEEM039A	Conduct testing of hazardous areas installations — gas atmospheres	40
UEENEEM040A	Conduct testing of hazardous areas installations — dust atmospheres	40
UEENEEM041A	Conduct testing of hazardous area installations — pressurisation	40
UEENEEM042A	Conduct visual inspection of hazardous areas	40

	installations	
UEENEEM076A	Use and maintain the integrity of a portable gas detection device	20
UEENEEM077A	Install and maintain the integrity of fixed gas detection equipment	20
UEENEEM080A	Report on the integrity of explosion-protected equipment in a hazardous area	20
UEENEEN102A	Assemble and wire internal electrical rail signalling equipment	30
UEENEEN103A	Install and maintain rail track circuit leads and bonds	30
UEENEEN104A	Test copper rail signalling cables	20
UEENEEN121A	Repair rail signalling power and control cables	40
UETTDRIS43A	Perform low voltage field switching operation to a given schedule.	50
UETTDRIS44A	Perform HV field switching operation to a given schedule	50
UETTDRIS47A	Sample, test, filter and reinstate insulating oil	40
UETTDRIS67A	Solve problems in energy supply network equipment	80
UETTDRIS68A	Solve problems in energy supply network protection equipment and systems	40
UETTDRSB23A	Install and maintain substation direct current systems	30
UETTDRSB29A	Maintain capacitor bank equipment for voltage regulation	40
UETTDRSB39A	Perform power system substation switching operation to a given schedule	50

Group C – Qualification Elective Units		Weighting Points
You must complete units to a minimum weighting of 220		
You may select all your elective units from this Group		
UEENEEC005B	Estimate electrotechnology projects	40
UEENEEE185A	Write work activity reports	20
UEENEEO076A	Install and replace low voltage current transformer metering	20
UEENEEO121A	Verify compliance and functionality of special LV electrical installations	40
UEENEEO122A	Conduct compliance inspection of single phase LV electrical installations	60

UEENEEG123A	Conduct compliance inspection of LV electrical installations with demand exceeding 100 A per phase	40
UEENEEG124A	Conduct compliance inspection of special LV electrical installations	60
UEENEEG125A	Plan electrical installations with a low voltage demand up to 400 A per phase	40
UEENEEG128A	Plan low voltage switchboard and control panel layouts	40
UEENEEG132A	Carry out low voltage electrical field testing and report findings	60
UEENEEG155A	Rewind HV three phase induction machines rated for voltages to 3.3 kV	60
UEENEEG156A	Rewind HV three phase induction machines rated for voltages above 3.3 kV	60
UEENEEG158A	Conduct electrical tests on HV electrical machines	60
UEENEEG162A	Set up and place LV electrical apparatus and associated circuits into service	40
UEENEEG168A	Diagnose and rectify faults in complex lift systems	40
UEENEEG172A	Investigate and report on electrical incidents and causes	60
UEENEEG175A	Develop compliance policies and plans to conduct a electrical contracting business	80
UEENEEG177A	Select low voltage power factor correction equipment	40
UEENEEG179A	Develop detailed electrical drawings	60
UEENEEG184A	Provide photometric data for illumination system design	60
UEENEEG185A	Select effective and efficient light sources and luminaries for given locations and designs	60
UEENEEG186A	Design effective and efficient lighting for residential and commercial buildings	20
UEENEEG188A	Prepare quotations for the supply of effective and efficient lighting products for lighting projects	20
UEENEEI142A	Develop an electrical integrated system interface for access through a touch screen	20
UEENEEI143A	Develop access control of electrical integrated systems using logic-based programming tools	20
UEENEEI144A	Develop interfaces for multiple access methods to monitor, schedule and control an electrical integrated system	20

UEENEEI119A	Set up industrial field control devices	60
UEENEEI120A	Provide solutions to problems in industrial control systems	60
UEENEEI124A	Fault find and repair analogue circuits and components in electronic control systems	60
UEENEEI125A	Provide solutions to fluid circuit operations	60
UEENEEI126A	Provide solutions to pneumatic-hydraulic system operations	80
UEENEEI139A	Diagnose and rectify faults in digital controls systems	60
UEENEEI148A	Solve problems in single phase electronic power control circuits	60
UEENEEI149A	Solve problems in polyphase electronic power control circuits	60
UEENEEI151A	Develop, enter and verify word and analogue control programs for programmable logic controllers.	60
UEENEEI152A	Develop, enter and verify programs in Supervisory Control and Data Acquisition systems	60
UEENEEI155A	Develop structured programs to control external devices	40
UEENEEK135A	Design grid connected photovoltaic power supply systems	60
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

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.

UEE40711 Certificate IV in Electronics and Communications

Modification History

Release	Action	Core/Elective	Details	Points
2	Add	Group B	UEENEEP024A Attach cords and plugs to electrical equipment for connection to a single phase 230 Volt supply	20
2	Add	Group B	UEENEEI150A Develop, enter and verify discrete control programs for programmable controllers	60
2	Edit		Edit Name to reflect correct Unit title UEENEEI104A Use engineering applications software on personal computers	40
2	Edit		Edit Name to Reflect correct Unit Title UEENEEI124A Fault find and repair analogue circuits and components in electronic control systems	
2	Update	Group A	MSS402001A Apply competitive systems and practices	20
2	Update	Group A	MSS402021A Apply Just in Time procedures	20
2	Update	Group A	MSS402080A Undertake root cause analysis	20
2	Update	Group A	MSS402081A Contribute to the application of a proactive maintenance strategy	20
2	Update	Group A	MSS402040A Apply 5S procedures	20
2	Update	Group A	MSS402020A Apply quick changeover procedures	20
3	Add	Group B	UEENEEP025A Attach cords, cables and plugs to electrical equipment for connection to 1000 Va.c. or 1500 Vd.c. supply	20
4	Remove	Group C	UEENEEH189A Design electronic printed circuit boards	40
4	Edit	Core	Correct title of UEENEEK145A - Implement and monitor energy sector environmental and sustainable policies and procedures	20

Description

Scope

This qualification provides competencies in audio/video, data systems and computer/network hardware, medical applications and communication aspects of electronic i.e. transmitters, communications medium/channel, receivers, attenuation, noise reduction. It includes detection/surveillance.

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

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
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
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
UEENEEH102A	Repairs basic electronic apparatus faults by replacement of components	40
UEENEEH111A	Troubleshoot single phase input d.c. power supplies	40
UEENEEH112A	Troubleshoot digital sub-systems	80
UEENEEH113A	Troubleshoot amplifiers in an electronic apparatus	80
UEENEEH114A	Troubleshoot resonance circuits in an electronic apparatus	80
UEENEEH138A	Fault find and repair complex power supplies	40
UEENEEH139A	Troubleshoot basic amplifier circuits	40
UEENEEH146A	Solve fundamental electronic communications system problems	40
UEENEEK145A	Implement and monitor energy sector environmental and sustainable policies and procedures	20
Total points in core		720

Elective Competency Standard Units		
Complete Elective units to achieve a total of weighting of 560 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 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	Qualification Elective Units	0 360
C	Qualification Elective Units You may select all your elective units from this Group	200 560

Group A – Imported and Common Elective Units		Weighting Points
You may complete units to a maximum weighting of 220		
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
ICTTEN3056A	Install telecommunications network equipment	40
MSS402001A	Apply competitive systems and practices	20
MSS402020A	Apply quick changeover procedures	20
MSS402021A	Apply Just in Time procedures	20
MSS402040A	Apply 5S procedures	20
MSS402080A	Undertake root cause analysis	20

MSS402081A	Contribute to the application of a proactive maintenance strategy	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 4. 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>	Up to 220 points

Group B – Qualification Elective Units You may complete units to a maximum weighting of 360		Weighting Points
UEENEEA101A	Assemble electronic components	40
UEENEEA102A	Select electronic components for assembly	20
UEENEEA103A	Set up and check electronic component assembly machines	40
UEENEEA104A	Modify electronic sub assemblies	40
UEENEEA105A	Conduct quality and functional tests on assembled electronic apparatus	20
UEENEEA106A	Use lead-free soldering techniques	40
UEENEEB101A	Operate and maintain amateur radio communication stations	40
UEENEED102A	Assemble, set-up and test computing devices	80
UEENEED104A	Use engineering applications software on personal computers	40
UEENEED112A	Support computer hardware and software for engineering applications	120
UEENEED129A	Develop web pages for engineering applications	40
UEENEED130A	Select, install, configure and test multimedia components	40
UEENEED143A	Install and configure a client computer operating system and software	40
UEENEED146A	Set up and configure basic local area network (LAN)	80
UEENEED153A	Set up, configure and test biometric devices	40
UEENEEE105A	Fix and secure electrotechnology equipment	20
UEENEEE107A	Use drawings, diagrams, schedules, standards, codes and specifications	40
UEENEEE108A	Lay wiring/cablings and terminate accessories for extra-low voltage (ELV) circuits	40
UEENEEE121A	Plan an integrated cabling installation system	40
UEENEEE122A	Carry out preparatory energy sector work activities	60
UEENEEE123A	Solve basic problems electronic and digital equipment and circuits	80
UEENEEE179A	Identify and select components, accessories and materials for energy sector work activities	20

UEENEEF102A	Install and maintain cabling for multiple access to telecommunication services	120
UEENEEF104A	Install and modify performance data communication copper cabling	40
UEENEEF105A	Install and modify optical fibre performance data communication cabling	40
UEENEEF106A	Solve problems in voice and data communications circuits	40
UEENEEF107A	Set up and configure the wireless capabilities of communications and data storage devices	40
UEENEEF108A	Select and arrange equipment for wireless communication networks	40
UEENEEF109A	Install and connect data and voice communication equipment	40
UEENEEF110A	Select and arrange data and voice equipment for local area networks	40
UEENEEF111A	Test, report and rectify faults in data and voice installations	40
UEENEEF114A	Set up and configure basic data communication systems	40
UEENEEH101A	Repair basic computer equipment faults by replacement of modules/sub-assemblies	40
UEENEEH103A	Repair routine business equipment faults	120
UEENEEH104A	Set up and test residential video/audio equipment	40
UEENEEH105A	Verify functionality and compliance of custom electronic installations	40
UEENEEH106A	Assemble and set up fixed video/audio components and systems in buildings and premises	120
UEENEEH107A	Repair predictable faults in general electronic apparatus	40
UEENEEH108A	Assemble and install reception antennae and signal distribution equipment	60
UEENEEH109A	Set up and test gaming and game equipment	60
UEENEEH110A	Install commercial video/audio system components	120
UEENEEH115A	Develop software solutions for microcontroller based systems	60
UEENEEH116A	Find and repair microwave amplifier section faults in electronic apparatus	40
UEENEEH117A	Carry out repairs of predictable faults in video and audio replay/recording apparatus	120

UEENEEH118A	Fault find and repair electronic apparatus	40
UEENEEH119A	Repair predictable faults in television receivers	120
UEENEEH120A	Fault find and repair gaming and games equipment	80
UEENEEH121A	Fault find and repair high volume office equipment	120
UEENEEH122A	Fault find and repair remote control apparatus	60
UEENEEH123A	Fault find and repair microwave heating apparatus	40
UEENEEH124A	Repair predictable faults in audio components	40
UEENEEH127A	Set up and adjust commercial radio frequency (RF) transmission and reception systems	60
UEENEEH128A	Install and test microwave antennae and waveguides	60
UEENEEH142A	Solve oscillator problems	40
UEENEEH150A	Assemble and set up basic security systems	80
UEENEEH151A	Install large security systems	100
UEENEEH152A	Enter instructions and test wired and wireless security systems	40
UEENEEH154A	Program and commission commercial security systems	60
UEENEEH155A	Program and commission commercial access control security systems	60
UEENEEH156A	Program and commission commercial security closed circuit television systems	60
UEENEEH161A	Install fire detection and warning system apparatus	40
UEENEEH162A	Verify compliance and functionality of fire protection system installations	60
UEENEEH163A	Enter and verify programs for fire protection systems	40
UEENEEH164A	Commission large fire protection systems	40
UEENEEH165A	Troubleshoot fire protection systems	40
UEENEEH166A	Troubleshoot microcontroller based hardware systems	40
UEENEEH169A	Solve problems in basic electronic circuits	100
UEENEEH171A	Troubleshoot faults in television receivers	120
UEENEEH172A	Troubleshoot communication systems	80
UEENEEH173A	Troubleshoot professional audio reproduction components	120

UEENEEI116A	Assemble, enter and verify operating instructions in microprocessor equipped devices	20
UEENEEI150A	Develop, enter and verify discrete control programs for programmable controllers	60
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

Group C – Qualification Elective Units		Weighting Points
You must complete units to a minimum weighting of 200 You may select all your elective units from this Group		
UEENEEC004B	Prepare specifications for the supply of materials and equipment for electrotechnology projects	40
UEENEEC005B	Estimate electrotechnology projects	40
UEENEEI103A	Evaluate and modify object oriented code programs	40
UEENEEI154A	Analyse and implement biometric measuring techniques and applications	120
UEENEEE110A	Develop and implement energy sector maintenance programs	60
UEENEEE114A	Supervise and coordinate energy sector work activities	40
UEENEEH129A	Fault find and repair navigation systems	60
UEENEEH130A	Fault find and repair satellite-based surveillance and observation systems	60
UEENEEH131A	Fault find and repair radar apparatus and systems	120
UEENEEH132A	Fault find and repair global positioning systems	60
UEENEEH133A	Fault find and repair telecommunication apparatus and systems	60
UEENEEH134A	Fault find and repair electronic medical equipment	120
UEENEEH135A	Design custom electronic equipment installations	120
UEENEEH136A	Design commercial video/audio installations	120
UEENEEH137A	Program and commission commercial video/audio systems	40
UEENEEH140A	Fault find and repair sonar apparatus and systems	120
UEENEEH153A	Program and test large security systems	120

UEENEEH157A	Develop basic plans for integrating security systems	40
UEENEEH175A	Troubleshooting in security system installations	60
UEENEEH176A	Diagnose and rectify faults in electronic display circuits	60
UEENEEH177A	Diagnose and rectify faults in recording and replay equipment	60
UEENEEH178A	Diagnose and rectify faults in camera circuits and equipment	60
UEENEEH179A	Diagnose and rectify faults in digital television circuits and apparatus	80
UEENEEH180A	Diagnose and rectify faults in digital transmission circuits and systems	80
UEENEEH186A	Commission satellite and microwave communication systems	40
UEENEEI120A	Provide solutions to problems in industrial control systems	60
UEENEEI124A	Fault find and repair analogue circuits and components in electronic control systems	60
UEENEEI139A	Diagnose and rectify faults in digital controls systems	60
UEENEEI155A	Develop structured programs to control external devices	40

Note:

1. Pre-requisite 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 pre-requisite pathway for the progression to achieve particular competencies or qualification at a higher level.

END OF QUALIFICATION

Custom Content Section

Not applicable.

UEE40811 Certificate IV in Electrical - Fire Protection Control Systems

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
2	Update	Group A	HLTCPR211A Perform CPR	10
2	Update	Group A	CPPFES2043A Prevent ozone depleting substance and synthetic greenhouse gas emissions	10

3	Edit	Group C	Edit Name to reflect correct Unit title UEENEEI151A Develop, enter and verify word and analogue control programs for programmable logic controllers.	60
3	Edit	Core	Edit Name to reflect correct Unit title UEENEEK145A Implement and monitor energy sector environmental and sustainable policies and procedures	20

4	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
4	Edit	Core	Correct title of UEENEEE101A - Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
4	Edit	Core	Correct title of UEENEEE102A - Fabricate, assemble and dismantle utilities industry components	40
4	Edit	Core	Correct title of UEENEEH161A - Install fire detection and warning system apparatus	40
4	Edit	Core	Correct title of UEENEEH162A - Verify compliance and functionality of fire protection system installations	60
4	Edit	Core	Correct title of UEENEEH163A - Enter and verify programs for fire protection systems	40
4	Edit	Core	Correct title of UEENEEH164A - Commission large fire protection systems	40

4	Edit	Core	Correct title of UEENEEH165A - Troubleshoot fire protection systems	40
4	Edit	Elective	Correct title of UEENEEH101A - Use computer applications relevant to a workplace	20
4	Edit	Elective	Correct title of UEENEEG113A - Install and maintain emergency safety systems	60
4	Edit	Elective	Correct title of UEENEEG172A - Investigate and report on electrical incidents and causes	60
4	Edit	Elective	Correct title of UEENEEH102A - 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 UEENEEI151A - Develop, enter and verify word and analogue control programs for programmable logic controllers.	60
4	Edit	Elective	Correct title of UEENEEM024A - Install explosion-protected equipment and wiring systems - gas atmospheres	40

Description

Scope

This qualification provides competencies to select, install, commission, fault find and maintain fire protection control systems in buildings. It includes ERAC requirements for an 'Electrician's licence'.

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

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
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
UEENEEH161A	Install fire detection and warning system apparatus	40
UEENEEH162A	Verify compliance and functionality of fire protection system installations	60
UEENEEH163A	Enter and verify programs for fire protection systems	40
UEENEEH164A	Commission large fire protection systems	40
UEENEEH165A	Troubleshoot fire protection systems	40
UEENEEK145A	Implement and monitor energy sector environmental and sustainable policies and procedures	20
Total points in core		1180

Elective Competency Standard Units

Complete Elective units to achieve a total of weighting of 100 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 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	60
B	Qualification Elective Units	0	60
C	Qualification Elective Units	40	100

Elective Competency Standard Units		
Complete Elective units to achieve a total of weighting of 100 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 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
	You may select all your elective units from this Group	60

Group A – Imported and Common Elective Units		Weighting Points
You may complete units to a maximum weighting of 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
UEENEED009B	Comply with scheduled and preventative maintenance program processes	20
UEENEED020B	Provide basic instruction in the use of electrotechnology apparatus	20
CPCCOHS1001A	Work safely in the construction industry	10
HLTAID001	Provide cardiopulmonary resuscitation	10
CPPFES2043A	Prevent ozone depleting substance and synthetic greenhouse gas emissions	10
	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,	Up to 60 points

	<p>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>	
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Group B – Qualification Elective Units		Weighting Points
You may complete units to a maximum weighting of 60		
UEENEED104A	Use engineering applications software on personal computers	40
UEENEED102A	Install and maintain cabling for multiple access to telecommunication services	120
UEENEED104A	Install and modify performance data communication copper cabling	40
UEENEED105A	Install and modify optical fibre performance data communication cabling	40
UEENEED113A	Install and maintain emergency safety systems	60
UEENEED102A	Repairs basic electronic apparatus faults by replacement of components	40
UEENEED111A	Troubleshoot single phase input d.c. power supplies	40
UEENEED138A	Fault find and repair complex power supplies	40
UEENEED116A	Assemble, enter and verify operating instructions in microprocessor equipped devices	20
UEENEED150A	Develop, enter and verify discrete control programs for programmable controllers	60
UEENEED024A	Install explosion-protected equipment and wiring systems — gas atmospheres	60
UEENEED077A	Install and maintain the integrity of fixed gas detection equipment	20
UEENEED080A	Report on the integrity of explosion-protected equipment in a hazardous area	20

Group C – Qualification Elective Units		Weighting Points
You must complete units to a minimum weighting of 40		
You may select all your elective units from this Group		
UEENEED121A	Verify compliance and functionality of special LV electrical installations	40

UEENEEG122A	Conduct compliance inspection of single phase LV electrical installations	60
UEENEEG123A	Conduct compliance inspection of LV electrical installations with demand exceeding 100 A per phase	40
UEENEEG124A	Conduct compliance inspection of special LV electrical installations	60
UEENEEG172A	Investigate and report on electrical incidents and causes	60
UEENEEG175A	Develop compliance policies and plans to conduct a electrical contracting business	80
UEENEEG179A	Develop detailed electrical drawings	60
UEENEEI151A	Develop, enter and verify word and analogue control programs for programmable logic controllers.	60
UEENEEI152A	Develop, enter and verify programs in Supervisory Control and Data Acquisition systems	60
UEENEEM042A	Install explosion-protected equipment and wiring systems - gas atmospheres	40

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.

UEE40911 Certificate IV in Industrial Electronics and Control

Modification History

Release	Action	Core/Elective	Details	Points
2	Add	Group B	UEENEEH150A Assemble and set up basic security systems	80
2	Edit		Edit Name to reflect correct Unit title UEENEEH104A Use engineering applications software on personal computers	40
2	Edit		Edit Name to Reflect correct Unit Title UEENEEI124A Fault find and repair analogue circuits and components in electronic control systems	
2	Update	Group A	HLTCPR211A Perform CPR	10

3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI102A Solve problems in pressure measurement components and systems	40
3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI103A Solve problems in density_level measurement components and systems	40
3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI104A Solve problems in flow measurement components and systems	40
3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI105A Solve problems in temperature measurement components and systems	40
3	Edit	Group C	Edit Name to reflect correct Unit title UEENEEI151A Develop, enter and verify word and analogue control programs for programmable logic controllers.	60
3	Edit	Core	Edit Name to reflect correct Unit title UEENEEK145A Implement and monitor energy sector environmental and sustainable policies and procedures	20

4	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
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4	Edit	Core	Correct title of UEENEEE101A - Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
4	Edit	Core	Correct title of UEENEEE102A - Fabricate, assemble and dismantle utilities industry components	40
4	Edit	Elective	Correct title of UEENEEED101A - Use computer applications relevant to a workplace	20
4	Edit	Elective	Correct title of UEENEEEG110A - Find and repair faults in LV d.c. electrical apparatus and circuits	60
4	Edit	Elective	Correct title of UEENEEEG119A - Maintain operation of electrical marine equipment and systems	60
4	Edit	Elective	Correct title of UEENEEEG132A - Carry out low voltage electrical field testing and report findings	60
4	Edit	Elective	Correct title of UEENEEEH102A - Repairs basic electronic apparatus faults by replacement of components	40
4	Edit	Elective	Correct title of UEENEEEI101A - Use instrumentation drawings, specification, standards and equipment manuals	40
4	Edit	Elective	Correct title of UEENEEEI103A - Solve problems in density/level measurement components and systems	40
4	Edit	Elective	Correct title of UEENEEEI116A - Assemble, enter and verify operating instructions in microprocessor equipped devices	20
4	Edit	Elective	Correct title of UEENEEEI119A - Set up industrial field control devices	60
4	Edit	Elective	Correct title of UEENEEEI126A - Provide solutions to pneumatic-hydraulic system operations	80
4	Edit	Elective	Correct title of UEENEEEI148A - Solve problems in single phase electronic power control circuits	60
4	Edit	Elective	Correct title of UEENEEEI149A - Solve problems in polyphase electronic power control circuits	60

Description

Scope

This qualification provides competencies to select, install, commission, fault find and maintain equipment and systems for the control of plant, machines and processes. It includes ERAC requirements for an 'Electrician's licence'.

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

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
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
UEENEEI124A	Fault find and repair analogue circuits and components in electronic control systems	60
UEENEEI139A	Diagnose and rectify faults in digital controls systems	60
UEENEEK145A	Implement and monitor energy sector environmental and sustainable policies and procedures	20
Total points in core		1080

Elective Competency Standard Units

Complete Elective units to achieve a total of weighting of 200 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 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	100
B	Qualification Elective Units	0	100
C	Qualification Elective Units You may select all your elective units from this Group	100	200

Group A – Imported and Common Elective Units

Weighting

You may complete units to a maximum weighting of 100		Points
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
CPCCOHS1001A	Work safely in the construction industry	10
HLTAID001	Provide cardiopulmonary resuscitation	10
	<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 4. 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>	Up to 100 points

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
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
UEENEEE192A	Produce detailed electrotechnology /utilities drawings using computer aided design equipment and software	60
UEENEEF102A	Install and maintain cabling for multiple access to telecommunication services	120
UEENEEF104A	Install and modify performance data communication copper cabling	40
UEENEED110A	Find and repair faults in LV d.c. electrical apparatus and circuits	60
UEENEED118A	Maintain operation of electrical mining equipment and systems	60
UEENEED119A	Maintain operation of electrical marine equipment and systems	60
UEENEEH102A	Repairs basic electronic apparatus faults by replacement of components	40
UEENEEH111A	Troubleshoot single phase input d.c. power supplies	40
UEENEEH150A	Assemble and set up basic security systems	80
UEENEEI101A	Use instrumentation drawings, specification, standards and equipment manuals	40
UEENEEI102A	Solve problems in pressure measurement components and systems	40
UEENEEI103A	Solve problems in density/level measurement components and systems	40
UEENEEI104A	Solve problems in flow measurement components and systems	40
UEENEEI105A	Solve problems in temperature measurement components and systems	40
UEENEEI116A	Assemble, enter and verify operating instructions in microprocessor equipped devices	20
UEENEEI150A	Develop, enter and verify discrete control programs	60

	for programmable controllers	
UEENEEM019A	Attend to breakdowns in hazardous areas — coal mining	20
UEENEEM020A	Attend to breakdowns in hazardous areas — gas atmospheres	20
UEENEEM021A	Attend to breakdowns in hazardous areas — dust atmospheres	20
UEENEEM022A	Attend to breakdowns in hazardous areas — pressurisation	20
UEENEEM076A	Use and maintain the integrity of a portable gas detection device	20
UEENEEM077A	Install and maintain the integrity of fixed gas detection equipment	20
UEENEEM080A	Report on the integrity of explosion-protected equipment in a hazardous area	20

Group C – Qualification Elective Units		Weighting Points
You must complete units to a minimum weighting of 100 You may select all your elective units from this Group		
UEENEEC005B	Estimate electrotechnology projects	40
UEENEEG132A	Carry out low voltage electrical field testing and report findings	60
UEENEEG179A	Develop detailed electrical drawings	60
UEENE EI119A	Set up industrial field control devices	60
UEENE EI120A	Provide solutions to problems in industrial control systems	60
UEENE EI125A	Provide solutions to fluid circuit operations	60
UEENE EI126A	Provide solutions to pneumatic-hydraulic system operations	80
UEENE EI148A	Solve problems in single phase electronic power control circuits	60
UEENE EI149A	Solve problems in polyphase electronic power control circuits	60
UEENE EI151A	Develop, enter and verify word and analogue control programs for programmable logic controllers.	60
UEENE EI152A	Develop, enter and verify programs in Supervisory Control and Data Acquisition systems	60
UEENE EI155A	Develop structured programs to control external	40

	devices	
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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.

UEE41011 Certificate IV in Energy Management and Control

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
2	Update	Group A	HLTCPR211A Perform CPR	10

3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI102A Solve problems in pressure measurement components and systems	40
3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI103A Solve problems in density_level measurement components and systems	40
3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI104A Solve problems in flow measurement components and systems	40
3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI105A Solve problems in temperature measurement components and systems	40
3	Edit	Core	Edit Name to reflect correct Unit title UEENEEK145A Implement and monitor energy sector environmental and sustainable policies and procedures	20

4	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
4	Edit	Core	Correct title of UEENEEE101A - Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
4	Edit	Core	Correct title of UEENEEE102A - Fabricate, assemble and dismantle utilities industry components	40
4	Edit	Elective	Correct title of UEENEE101A - Use computer applications relevant to a workplace	20
4	Edit	Elective	Correct title of UEENEEE121A - Plan an integrated cabling installation system	40

4	Edit	Elective	Correct title of UEENEEG113A - Install and maintain emergency safety systems	60
4	Edit	Elective	Correct title of UEENEEG125A - Plan electrical installations with a low voltage demand up to 400 A per phase	40
4	Edit	Elective	Correct title of UEENEEG128A - Plan low voltage switchboard and control panel layouts	40
4	Edit	Elective	Correct title of UEENEEG168A - Diagnose and rectify faults in complex lift systems	40
4	Edit	Elective	Correct title of UEENEEG172A - Investigate and report on electrical incidents and causes	60
4	Edit	Elective	Correct title of UEENEEG177A - Select low voltage power factor correction equipment	60
4	Edit	Elective	Correct title of UEENEEG185A - Select effective and efficient light sources and luminaries for given locations and designs	60
4	Edit	Elective	Correct title of UEENEEH102A - Repairs basic electronic apparatus faults by replacement of components	40
4	Edit	Elective	Correct title of UEENEEI103A - Solve problems in density/level measurement components and systems	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 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 properties and enterprises	40

Description

Scope

This qualification provides competencies to develop strategies for the reduction of energy in buildings and to recommend changes in the way in which energy is controlled in the building either by the installation of new control equipment or by the modification or re-programming of that existing. It includes ERAC requirements for an 'Electrician's licence'.

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

Note 1: 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
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
UEENEEK145A	Implement and monitor energy sector environmental and sustainable policies and procedures	20
UEENEEK152A	Develop strategies to address sustainability issues for electrical installations	20
Total points in core		980

Elective Competency Standard Units

Complete Elective units to achieve a total of weighting of 300 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 4. If units have not been assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0	100
B	Qualification Elective Units	0	100
C	Qualification Elective Units You may select all your elective units from this Group	200	300

Group A – Imported and Common Elective Units

You may complete units to a maximum weighting of 100

		Weighting Points
UEENEEC001B	Maintain documentation	20
UEENEEC002B	Source and purchase material/parts for installation or	20

	service jobs	
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
CPCCOHS1001A	Work safely in the construction industry	10
HLTAID001	Provide cardiopulmonary resuscitation	10
	<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 4. 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>	Up to 100 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
UEENEEE121A	Plan an integrated cabling installation system	40
UEENEEF102A	Install and maintain cabling for multiple access to telecommunication services	120
UEENEEF104A	Install and modify performance data communication copper cabling	40
UEENEEG113A	Install and maintain emergency safety systems	60
UEENEEG171A	Install, set up and commission interval metering	20
UEENEEG181A	Provide advice on effective and energy efficient lighting products	20
UEENEEG182A	Supply effective and efficient lighting products for domestic and small commercial applications	40
UEENEEG183A	Provide advice on the application of energy efficient lighting for ambient and aesthetic effect	20
UEENEEG189A	Install and maintain emergency lighting systems	40
UEENEEH102A	Repairs basic electronic apparatus faults by replacement of components	40
UEENEEH111A	Troubleshoot single phase input d.c. power supplies	40
UEENE EI141A	Develop electrical integrated systems	40
UEENE EI102A	Solve problems in pressure measurement components and systems	40
UEENE EI103A	Solve problems in density/level measurement components and systems	40
UEENE EI104A	Solve problems in flow measurement components and systems	40
UEENE EI105A	Solve problems in temperature measurement components and systems	40
UEENE EI116A	Assemble, enter and verify operating instructions in microprocessor equipped devices	20
UEENE EI150A	Develop, enter and verify discrete control programs for programmable controllers	60

Group C – Qualification Elective Units You must complete units to a minimum weighting of 200 You may select all your elective units from this Group	Weighting Points
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UEENEEE073B	Write specifications for refrigeration and air conditioning engineering projects	40
UEENEEG076A	Install and replace low voltage current transformer metering	20
UEENEEG121A	Verify compliance and functionality of special LV electrical installations	40
UEENEEG122A	Conduct compliance inspection of single phase LV electrical installations	60
UEENEEG123A	Conduct compliance inspection of LV electrical installations with demand exceeding 100 A per phase	40
UEENEEG124A	Conduct compliance inspection of special LV electrical installations	60
UEENEEG125A	Plan electrical installations with a low voltage demand up to 400 A per phase	40
UEENEEG128A	Plan low voltage switchboard and control panel layouts	40
UEENEEG162A	Set up and place LV electrical apparatus and associated circuits into service	40
UEENEEG168A	Diagnose and rectify faults in complex lift systems	40
UEENEEG172A	Investigate and produce reports on electrical incidents	60
UEENEEG175A	Develop compliance policies and plans to conduct a electrical contracting business	80
UEENEEG177A	Select power factor correction equipment	40
UEENEEG179A	Develop detailed electrical drawings	60
UEENEEG184A	Provide photometric data for illumination system design	60
UEENEEG185A	Select effective and efficient light sources and luminaries for given locations and designs	60
UEENEEG186A	Design effective and efficient lighting for residential and commercial buildings	20
UEENEEG188A	Prepare quotations for the supply of effective and efficient lighting products for lighting projects	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	40

	efficiency in commercial facilities	
UEENEEK155A	Assess energy loads and uses for energy efficiency in industrial properties and enterprises	40

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.

UEE41111 Certificate IV in Electrical - Lift Systems

Modification History

Release	Action	Core/Elective	Details	Points
	Edit		Edit Name to Reflect correct Unit Title UEENEEI124A Fault find and repair analogue circuits and components in electronic control systems	
2	Update	Group A	HLTCPR211A Perform CPR	10

3	Edit	Group C	Edit Name to reflect correct Unit title UEENEEI151A Develop, enter and verify word and analogue control programs for programmable logic controllers.	60
3	Edit	Core	Edit Name to reflect correct Unit title UEENEEK145A Implement and monitor energy sector environmental and sustainable policies and procedures	20

4	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
4	Edit	Core	Correct title of UEENEEE101A - Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
4	Edit	Core	Correct title of UEENEEE102A - Fabricate, assemble and dismantle utilities industry components	40
4	Edit	Core	Correct title of UEENEEG116A - Diagnose and rectify faults in traction lift systems	80
4	Edit	Core	Correct title of UEENEEG168A - Diagnose and rectify faults in complex lift systems	40
4	Edit	Elective	Correct title of UEENEEED101A - Use computer applications relevant to a workplace	20
4	Edit	Elective	Correct title of UEENEEG110A - Find and repair faults in LV d.c. electrical apparatus and circuits	60
4	Edit	Elective	Correct title of UEENEEG165A - Maintain and service traction lifts systems and equipment	40
4	Edit	Elective	Correct title of UEENEEG166A - Install and maintain escalators, moving walks and treadways	40

4	Edit	Elective	Correct title of UEENEEG167A - Align and install traction lift equipment	20
4	Edit	Elective	Correct title of UEENEEI148A - Solve problems in single phase electronic power control circuits	60
4	Edit	Elective	Correct title of UEENEEI149A - Solve problems in polyphase electronic power control circuits	60

Description

Scope

This qualification provides competencies to select, install, commission, fault find and maintain lifts, escalators and associated equipment. It includes ERAC requirements for an 'Electrician's licence'.

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

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
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 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
UEENEEG116A	Diagnose and rectify faults in traction lift systems	80
UEENEEG168A	Diagnose and rectify faults in complex lift systems	40
UEENEEI124A	Fault find and repair analogue circuits and components in electronic control systems	60
UEENEEI139A	Diagnose and rectify faults in digital controls systems	60
UEENEEK145A	Implement and monitor energy sector environmental and sustainable policies and procedures	20
Total points in core		1200

Elective Competency Standard Units

Complete Elective units to achieve a total of weighting of 80 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 4. If units have not been assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0	20
B	Qualification Elective Units	0	20
C	Qualification Elective Units You may select all your elective units from this Group	60	60

Group A – Imported and Common Elective Units You may complete units to a maximum weighting of 20		Weighting Points
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
CPCCOHS1001A	Work safely in the construction industry	10
HLTAID001	Provide cardiopulmonary resuscitation	10
	<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 4. 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>	Up to 20 points

Group B – Qualification Elective Units You may complete units to a maximum weighting of 20		Weighting Points
UEENEEF103A	Install and maintain telecommunication cabling for services in lifts	20
UEENEEG110A	Find and repair faults in LV d.c. electrical apparatus and circuits	60
UEENEEG165A	Maintain and service traction lifts systems and equipment	40
UEENEEG166A	Install and maintain escalators, moving walks and treadways	40
UEENEEG167A	Align and install traction lift equipment	20
UEENEEI150A	Develop, enter and verify discrete control programs for programmable controllers	60

Group C – Qualification Elective Units Complete units to a maximum weighting of 60		Weighting Points
UEENEEI148A	Solve problems in single phase electronic power control circuits	60
UEENEEI149A	Solve problems in polyphase electronic power control circuits	60
UEENEEI151A	Develop, enter and verify word and analogue control programs for programmable logic controllers.	60
UEENEEI152A	Develop, enter and verify programs in Supervisory Control and Data Acquisition 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.

END OF QUALIFICATION

Custom Content Section

Not applicable.

UEE41211 Certificate IV in Electrical - Rail Signalling

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
2	Edit		Added Heading for Performance Criteria Element 2 and 3	
2	Update	Group A	HLTCPR211A Perform CPR	10

3	Edit	Core	Edit Name to reflect correct Unit title UEENEEK145A Implement and monitor energy sector environmental and sustainable policies and procedures	20
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4	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
4	Edit	Core	Correct title of UEENEEE101A - Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
4	Edit	Core	Correct title of UEENEEE102A - Fabricate, assemble and dismantle utilities industry components	40
4	Edit	Elective	Correct title of UEENEED101A - Use computer applications relevant to a workplace	20
4	Edit	Elective	Correct title of UEENEEN106A - Install and maintain non-vital screen based control systems	20

Description

Scope

This qualification provides competencies to install, certify, fault find and maintain rail signalling equipment and systems. This includes ERAC requirements for an 'Electrician's licence', performing like for like replacement, performing authorised installations and alterations, and applying emergency operational restriction. It excludes changing circuit principles, changing the design function and commissioning.

Note:

Commissioning is defined as the process to certify the signalling system to the enterprise standard. Certification is defined as the signing of certification documents by qualified, competent persons attesting to the design, product, or installation is in accordance with the specification requirements as verified by appropriate inspections and/or tests at equipment level.

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

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
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
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
UEENEK145A	Implement and monitor energy sector environmental and sustainable policies and procedures	20
UEENEEN102A	Assemble and wire internal electrical rail signalling equipment	30
UEENEEN103A	Install and maintain rail track circuit leads and bonds	30
UEENEEN104A	Test copper rail signalling cables	20
UEENEEN105A	Install and maintain rail signalling power supplies	40
UEENEEN107A	Install and maintain active level crossing equipment	40
UEENEEN108A	Install and maintain power operated point actuating devices	40
UEENEEN109A	Install and maintain train detection equipment	40
UEENEEN111A	Install and maintain trackside signal and train protection equipment	40
UEENEEN112A	Install and maintain vital relay interlocking systems	40
UEENEEN118A	Find and repair rail signalling system faults	20
UEENEEN121A	Repair rail signalling power and control cables	40
Total points in core		1280

Elective Competency Standard Units

Complete Elective units to achieve a total of weighting of 70 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 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	30
B	Qualification Elective Units	0	40
C	Qualification Elective Units You may select all your elective units from this Group	30	70

Group A – Imported and Common Elective Units You may complete units to a maximum weighting of 30		Weighting Points
CPCCOHS1001A	Work safely in the construction industry	10
HLTAID001	Provide cardiopulmonary resuscitation	10
TLIS2004A	Install and maintain rail bonding systems	40
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
UEENEEED101A	Use computer applications relevant to a workplace	20
UEENEEEE009B	Comply with scheduled and preventative maintenance program processes	20
UEENEEEE020B	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 4. 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	Up to 30 points

	Qualification Framework	
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Group B – Qualification Elective Units You may complete units to a maximum weighting of 40		Weighting Points
UEENEED104A	Use engineering applications software on personal computers	40
UEENEED146A	Set up and configure basic local area network (LAN)	80

Group C – Qualification Elective Units You must complete units to a minimum weighting of 30 You may select all your elective units from this Group		Weighting Points
UEENEEE124A	Compile and produce an energy sector detailed report	60
UEENEEE152A	Observe safety practices are followed in the vicinity of isolated electrical cables	20
UEENEEN101A	Maintain mechanical rail signalling equipment and infrastructure	20
UEENEEN106A	Install and maintain non-vital screen based control systems	20
UEENEEN110A	Install and maintain non-vital telemetry systems	40
UEENEEN114A	Install and maintain computer based interlocking rail systems	30
UEENEEN116A	Maintain electronic and microprocessor-based remote control systems	20
UEENEEN126A	Develop rail signalling system maintenance programs	20
UEENEEN127A	Decommission electrical and electro-mechanical rail signalling from service	20
UEENEEN128A	Test and commission rail power equipment	20

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.

UEE41511 Certificate IV in Video and Audio Systems

Modification History

Release	Action	Core/Elective	Details	Points
2	Edit		Edit Name to reflect correct Unit title UEENED104A Use engineering applications software on personal computers	40
4	Remove	Group C	UEENEEH189A Design electronic printed circuit boards	40
4	Edit	Elective	Correct title of UEENEEH101A - Repair basic computer equipment faults by replacement of modules/sub-assemblies	40
4	Edit	Elective	Correct title of UEENEEH117A - Carry out repairs of predictable faults in video and audio replay/recording apparatus	120
4	Edit	Elective	Correct title of UEENEEH174A - Troubleshoot audio - video recording equipment	120
4	Edit	Core	Correct title of UEENEEK145A - Implement and monitor energy sector environmental and sustainable policies and procedures	120

Description

Scope

This qualification provides competencies to service high end audio, video, display systems and HDTV.

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

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
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
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
UEENEEH102A	Repairs basic electronic apparatus faults by replacement of components	40
UEENEEH111A	Troubleshoot single phase input d.c. power supplies	40
UEENEEH112A	Troubleshoot digital sub-systems	80
UEENEEH113A	Troubleshoot amplifiers in an electronic apparatus	80
UEENEEH114A	Troubleshoot resonance circuits in an electronic apparatus	80
UEENEEH119A	Repair predictable faults in television receivers	120
UEENEEH138A	Fault find and repair complex power supplies	40
UEENEEH139A	Troubleshoot basic amplifier circuits	40
UEENEEH146A	Solve fundamental electronic communications system problems	40
UEENEEK145A	Implement and monitor energy sector environmental and sustainable policies and	20

	procedures	
Total points in core		840

Elective Competency Standard Units		
Complete Elective units to achieve a total of weighting of 440 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 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	Qualification Elective Units	0 220
C	Qualification Elective Units You may select all your elective units from this Group	220 440

Group A – Imported and Common Elective Units		Weighting Points
You may complete units to a maximum weighting of 220		
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 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	Up to 220 points

	<p>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>	
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Group B – Qualification Elective Units You may complete units to a maximum weighting of 220		Weighting Points
UEENEEA101A	Assemble electronic components	40
UEENEEA106A	Use lead-free soldering techniques	40
UEENEED102A	Assemble, set-up and test computing devices	80
UEENEED104A	Use engineering applications software on personal computers	40
UEENEED112A	Support computer hardware and software for engineering applications	120
UEENEED129A	Develop web pages for engineering applications	40
UEENEED130A	Select, install, configure and test multimedia components	40
UEENEED143A	Install and configure a client computer operating system and software	40
UEENEED146A	Set up and configure basic local area network (LAN)	80
UEENEED153A	Set up, configure and test biometric devices	40
UEENEEE105A	Fix and secure electrotechnology equipment	20
UEENEEE107A	Use drawings, diagrams, schedules, standards, codes and specifications	40
UEENEEE108A	Lay wiring/cablings and terminate accessories for extra-low voltage (ELV) circuits	40
UEENEEE121A	Plan an integrated cabling installation system	40
UEENEEE123A	Solve basic problems electronic and digital equipment and circuits	80
UEENEEE179A	Identify and select components, accessories and materials for energy sector work activities	20
UEENEED102A	Install and maintain cabling for multiple access to telecommunication services	120
UEENEED104A	Install and modify performance data communication copper cabling	40
UEENEED105A	Install and modify optical fibre performance data communication cabling	40
UEENEED106A	Solve problems in voice and data communications circuits	40
UEENEED107A	Set up and configure the wireless capabilities of communications and data storage devices	40

UEENEEF108A	Select and arrange equipment for wireless communication networks	40
UEENEEF109A	Install and connect data and voice communication equipment	40
UEENEEF110A	Select and arrange data and voice equipment for local area networks	40
UEENEEF111A	Test, report and rectify faults in data and voice installations	40
UEENEEF114A	Set up and configure basic data communication systems	40
UEENEEH101A	Repair basic computer equipment faults by replacement of modules/sub-assemblies	40
UEENEEH103A	Repair routine business equipment faults	120
UEENEEH104A	Set up and test residential video/audio equipment	40
UEENEEH105A	Verify functionality and compliance of custom electronic installations	40
UEENEEH106A	Assemble and set up fixed video/audio components and systems in buildings and premises	120
UEENEEH107A	Repair predictable faults in general electronic apparatus	40
UEENEEH108A	Assemble and install reception antennae and signal distribution equipment	60
UEENEEH109A	Set up and test gaming and game equipment	60
UEENEEH110A	Install commercial video/audio system components	120
UEENEEH115A	Develop software solutions for microcontroller based systems	60
UEENEEH116A	Find and repair microwave amplifier section faults in electronic apparatus	40
UEENEEH117A	Carry out repairs of predictable faults in video and audio replay/recording apparatus	120
UEENEEH118A	Fault find and repair electronic apparatus	40
UEENEEH120A	Fault find and repair gaming and games equipment	80
UEENEEH121A	Fault find and repair high volume office equipment	120
UEENEEH122A	Fault find and repair remote control apparatus	60
UEENEEH123A	Fault find and repair microwave heating apparatus	40
UEENEEH124A	Repair predictable faults in audio components	40
UEENEEH127A	Set up and adjust commercial radio frequency (RF)	60

	transmission and reception systems	
UEENEEH128A	Install and test microwave antennae and waveguides	60
UEENEEH142A	Solve oscillator problems	40
UEENEEH150A	Assemble and set up basic security systems	80
UEENEEH151A	Install large security systems	100
UEENEEH152A	Enter instructions and test wired and wireless security systems	40
UEENEEH154A	Program and commission commercial security systems	60
UEENEEH155A	Program and commission commercial access control security systems	60
UEENEEH156A	Program and commission commercial security closed circuit television systems	60
UEENEEH166A	Troubleshoot microcontroller based hardware systems	40
UEENEEH169A	Solve problems in basic electronic circuits	100
UEENEEH171A	Troubleshoot faults in television receivers	120
UEENEEH172A	Troubleshoot communication systems	80
UEENEEH173A	Troubleshoot professional audio reproduction components	120
UEENEEH174A	Troubleshoot audio - video recording equipment	120
UEENEEH187A	Solve problems in electronic musical equipment circuits	40
UEENEEI116A	Assemble, enter and verify operating instructions in microprocessor equipped devices	20

Group C – Qualification Elective Units		Weighting Points
You must complete units to a minimum weighting of 220 You may select all your elective units from this Group		
UEENEEC004B	Prepare specifications for the supply of materials and equipment for electrotechnology projects	40
UEENEEC005B	Estimate electrotechnology projects	40
UEENEEED103A	Evaluate and modify object oriented code programs	40
UEENEEED154A	Analyse and implement biometric measuring techniques and applications	120
UEENEEEEE114A	Supervise and coordinate energy sector work activities	40

UEENEEH133A	Fault find and repair telecommunication apparatus and systems	60
UEENEEH134A	Fault find and repair electronic medical equipment	120
UEENEEH135A	Design custom electronic equipment installations	120
UEENEEH136A	Design commercial video/audio installations	120
UEENEEH137A	Program and commission commercial video/audio systems	40
UEENEEH153A	Program and test large security systems	120
UEENEEH157A	Develop basic plans for integrating security systems	40
UEENEEH175A	Troubleshooting in security system installations	60
UEENEEH176A	Diagnose and rectify faults in electronic display circuits	60
UEENEEH177A	Diagnose and rectify faults in recording and replay equipment	60
UEENEEH178A	Diagnose and rectify faults in camera circuits and equipment	60
UEENEEH179A	Diagnose and rectify faults in digital television circuits and apparatus	80
UEENEEH180A	Diagnose and rectify faults in digital transmission circuits and systems	80
UEENEEI155A	Develop structured programs to control external devices	40

Note:

1. Pre-requisite 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 pre-requisite pathway for the progression to achieve particular competencies or qualification at a higher level.

END OF QUALIFICATION

Custom Content Section

Not applicable.

UEE41611 Certificate IV in Renewable Energy

Modification History

Release	Action	Core/Elective	Details	Points
2	Update	Group A	HLTCPR211A Perform CPR	10

3	Edit	Group C	Edit Name to reflect correct Unit title UEENEEI151A Develop, enter and verify word and analogue control programs for programmable logic controllers.	60
3	Edit	Core	Edit Name to reflect correct Unit title UEENEEK145A Implement and monitor energy sector environmental and sustainable policies and procedures	20

4	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
4	Edit	Core	Correct title of UEENEEE101A - Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
4	Edit	Core	Correct title of UEENEEE102A - Fabricate, assemble and dismantle utilities industry components	40
4	Edit	Core	Correct title of UEENEEE108A - Lay wiring/cabbling and terminate accessories for extra-low voltage (ELV) circuits	40
4	Edit	Core	Correct title of UEENEEE119A - Solve problems in multiple path extra low voltage (ELV) a.c. circuits	40
4	Edit	Core	Correct title of UEENEEK128A - Solve problems in stand-alone renewable energy systems	60
4	Edit	Core	Correct title of UEENEEK149A - Verify compliance and functionality of a extra low voltage renewable energy installation	40
4	Edit	Elective	Correct title of UEENEED004B - Prepare specifications for the supply of materials and equipment for electrotechnology projects	40
4	Edit	Elective	Correct title of UEENEEI101A - Use computer applications relevant to a workplace	20

4	Edit	Elective	Correct title of UEENEEE114A - Supervise and coordinate energy sector work activities	40
4	Edit	Elective	Correct title of UEENEEE192A - Produce detailed electrotechnology /utilities drawings using computer aided design equipment and software	60
4	Edit	Elective	Correct title of UEENEEK110A - Co-ordinate maintenance of renewable energy (RE) apparatus and systems	20
4	Edit	Elective	Correct title of UEENEEK117A - Maintain and repair facilities associated with remote area essential service operations	120
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 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 UEENEEK143A - Install small wind energy conversion systems rated up to 10 kW for ELV stand-alone applications	20
4	Edit	Elective	Correct title of UEENEEP026A - Conduct in-service safety testing of electrical cord connected equipment and cord assemblies	20

Description

Scope

This qualification provides competencies to select, install, commission, fault find and maintain multiple renewable energy sources and equipment for control of energy use.

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

Note: UEENEEK149A- Those holding a ‘Certificate III in Renewable Energy – ELV qualification or equivalent’ meet the requirements of this unit and its pre-requisite requirements.

Core Competency Standard Units All Core competency standard units to be achieved		Weighting Points
UEENEEE117A	Implement and monitor energy sector OHS policies and procedures	20
UEENEEE124A	Compile and produce an energy sector detailed report	60
UEENEEE038B	Participate in development and follow a personal competency development plan	20
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
UEENEEE108A	Lay wiring/cabling and terminate accessories for extra-low voltage (ELV) circuits	40
UEENEEE119A	Solve problems in multiple path extra low voltage (ELV) a.c. circuits	40
UEENEEE137A	Document and apply measures to control OHS risks associated with electrotechnology work	20
UEENEEG101A	Solve problems in electromagnetic devices and related circuits	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 systems	60
UEENEEK149A	Verify compliance and functionality of a extra low voltage renewable energy installation	40
UEENEEK145A	Implement and monitor energy sector environmental and sustainable policies and procedures	20
	Total points in core	740

Elective Competency Standard Units		
Complete Elective units to achieve a total of weighting of 540 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 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
B	Qualification Elective Units	0
C	Qualification Elective Units	220

Group A – Imported and Common Elective Units		Weighting Points
You may complete units to a maximum weighting of 220		
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
UEENEED009B	Comply with scheduled and preventative maintenance program processes	20
UEENEED020B	Provide basic instruction in the use of electrotechnology apparatus	20
CPCCOHS1001A	Work safely in the construction industry	10
HLTAID001	Provide cardiopulmonary resuscitation	10
	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,	Up to 220 points

	<p>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>	
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Group B – Qualification Elective Units		Weighting Points
You may complete units to a maximum weighting of 320		
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 service operations	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 systems rated up to 10 kW	60
UEENEEK134A	Install ELV stand-alone photovoltaic power systems	60
UEENEEK137A	Install, set up and maintain ELV micro-hydro systems rated up to 6.4 kW	20
UEENEEK143A	Install small wind energy conversion systems rated up to 10 kW for ELV stand-alone applications	20
UEENEPE024A	Attach cords and plugs to electrical equipment for connection to a single phase 230 Volt supply	20
UEENEPE025A	Attach cords, cables and plugs to electrical equipment for connection to 1000 V.a.c. or 1500 V.d.c. supply	20
UEENEPE026A	Conduct in-service safety testing of electrical cord connected equipment and cord assemblies	20

Group C – Qualification Elective Units		Weighting Points
You must complete units to a minimum weighting of 220 and to a maximum of 380		
UEENECE004B	Prepare specifications for the supply of materials	40

	and equipment for electrotechnology projects	
UEENEEC005B	Estimate electrotechnology projects	40
UEENEEE114A	Supervise and coordinate energy sector work activities	40
UEENEEE192A	Produce detailed electrotechnology /utilities drawings using computer aided design equipment and software	60
UEENEEI151A	Develop, enter and verify word and analogue control programs for programmable logic controllers.	60
UEENEEI152A	Develop, enter and verify programs in Supervisory Control and Data Acquisition systems	60
UEENEEK110A	Co-ordinate maintenance of renewable energy (RE) apparatus and systems	20
UEENEEK135A	Design grid connected photovoltaic power supply 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.

END OF QUALIFICATION

Custom Content Section

Not applicable.

UEE41711 Certificate IV in Rail - Communications and Network Systems

Modification History

Release	Action	Core/Elective	Details	Points
2	Edit		Edit Name to reflect correct Unit title UEENEEED104A Use engineering applications software on personal computers	40
2	Update	Group A	HLTCPR211A Perform CPR	10

3	Edit	Core	Edit Name to reflect correct Unit title UEENEEK145A Implement and monitor energy sector environmental and sustainable policies and procedures	20
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4	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
4	Edit	Core	Correct title of UEENEEE101A - Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
4	Edit	Core	Correct title of UEENEEE102A - Fabricate, assemble and dismantle utilities industry components	40
4	Edit	Core	Correct title of UEENEEH102A - Repairs basic electronic apparatus faults by replacement of components	40
4	Edit	Elective	Correct title of UEENEEED101A - Use computer applications relevant to a workplace	20
4	Edit	Elective	Correct title of UEENEEH127A - Set up and adjust commercial radio frequency (RF) transmission and reception systems	60
4	Edit	Elective	Correct title of UEENEEH129A - Fault find and repair navigation systems	60
4	Edit	Elective	Correct title of UEENEEH137A - Program and commission commercial video/audio systems	40
4	Edit	Elective	Correct title of UEENEEH175A - Troubleshooting in security system installations	60
4	Edit	Elective	Correct title of UEENEEH176A - Diagnose and	60

			rectify faults in electronic display circuits	
4	Edit	Elective	Correct title of UEENEEH177A - Diagnose and rectify faults in recording and replay equipment	60
4	Edit	Elective	Correct title of UEENEEH178A - Diagnose and rectify faults in camera circuits and equipment	60
4	Edit	Elective	Correct title of UEENEEH179A - Diagnose and rectify faults in digital television circuits and apparatus	80
4	Edit	Elective	Correct title of UEENEEH180A - Diagnose and rectify faults in digital transmission circuits and systems	80

Description

Scope

This qualification provides competencies to select, install, commission, fault find and maintain radio and dedicated telecommunications networks in rail 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 560 points in accordance with the Elective Competency Standard Units table below.

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
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
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
UEENEEH102A	Repairs basic electronic apparatus faults by replacement of components	40
UEENEEH111A	Troubleshoot single phase input d.c. power supplies	40
UEENEEH112A	Troubleshoot digital sub-systems	80
UEENEEH113A	Troubleshoot amplifiers in an electronic apparatus	80
UEENEEH114A	Troubleshoot resonance circuits in an electronic apparatus	80
UEENEEH138A	Fault find and repair complex power supplies	40
UEENEEH139A	Troubleshoot basic amplifier circuits	40
UEENEK145A	Implement and monitor energy sector environmental and sustainable policies and procedures	20
Total points in core		720

Elective Competency Standard Units		
Complete Elective units to achieve a total of weighting of 560 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 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
B	Qualification Elective Units	0
C	Qualification Elective Units You may select all your elective units from this Group	220
		340
		560

Group A – Imported and Common Elective Units		Weighting Points
You may complete units to a maximum weighting of 220		
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
UEENEEC101A	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
CPCCOHS1001A	Work safely in the construction industry	10
HLTAID001	Provide cardiopulmonary resuscitation	10
	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	Up to 220 points

	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	
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Group B – Qualification Elective Units You may complete units to a maximum weighting of 340		Weighting Points
UEENEED104A	Use engineering applications software on personal computers	40
UEENEED102A	Install and maintain cabling for multiple access to telecommunication services	120
UEENEED104A	Install and modify performance data communication copper cabling	40
UEENEED105A	Install and modify optical fibre performance data communication cabling	40
UEENEED107A	Set up and configure the wireless capabilities of communications and data storage devices	40
UEENEED108A	Select and arrange equipment for wireless communication networks	60
UEENEED109A	Install and connect data and voice communication equipment	40
UEENEED110A	Select and arrange data and voice equipment for local area networks	40
UEENEED115A	Develop software solutions for microcontroller based systems	60

Group C – Qualification Elective Units You must complete units to a minimum weighting of 220 You may select all your elective units from this Group		Weighting Points
UEENEED127A	Set up and adjust commercial radio frequency (RF) transmission and reception systems	60
UEENEED129A	Fault find and repair navigation systems	60
UEENEED137A	Program and commission commercial video/audio systems	40
UEENEED175A	Troubleshooting in security system installations	60
UEENEED176A	Diagnose and rectify faults in electronic display	60

	circuits	
UEENEEH177A	Diagnose and rectify faults in recording and replay equipment	60
UEENEEH178A	Diagnose and rectify faults in camera circuits and equipment	60
UEENEEH179A	Diagnose and rectify faults in digital television circuits and apparatus	80
UEENEEH180A	Diagnose and rectify faults in digital transmission circuits and systems	80

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.

UEE41911 Certificate IV in Electrical - Renewable Energy

Modification History

Release	Action	Core/Elective	Details	Points
2	Edit		Edit Name to reflect correct Unit title UEENEEED104A Use engineering applications software on personal computers	40
2	Update	Group A	HLTCPR211A Perform CPR	10

3	Edit	Core	Edit Name to reflect correct Unit title UEENEEK145A Implement and monitor energy sector environmental and sustainable policies and procedures	20
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4	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
4	Edit	Core	Correct title of UEENEEE101A - Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
4	Edit	Core	Correct title of UEENEEE102A - Fabricate, assemble and dismantle utilities industry components	40
4	Edit	Elective	Correct title of UEENEEED101A - Use computer applications relevant to a workplace	20
4	Edit	Elective	Correct title of UEENEEI116A - Assemble, enter and verify operating instructions in microprocessor equipped devices	20
4	Edit	Elective	Correct title of UEENEEK110A - Co-ordinate maintenance of renewable energy (RE) apparatus and systems	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 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 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 properties and enterprises	40

Description

Scope

Select, install, set up, test, fault find, repair and maintain electrical systems and equipment in buildings and premises. It includes ERAC requirements for an 'Electrician's licence' and competencies to select, install, set up, test, fault find, repair and maintain stand alone 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 160 points in accordance with the Elective Competency Standard Units table below.

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
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
UEENEEK125A	Solve basic problems in photovoltaic energy apparatus and systems	20
UEENEEK127A	Diagnose and rectify faults in renewable energy control systems	60
UEENEEK145A	Implement and monitor energy sector environmental and sustainable policies and procedures	20
Total points in core		1120

Elective Competency Standard Units

Complete Elective units to achieve a total of weighting of 160 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 4. If units have not been assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0	50
B	Qualification Elective Units	0	120
C	Qualification Elective Units You may select all your elective units from this Group	40	160

Group A – Imported and Common Elective Units	Weighting
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You may complete units to a maximum weighting of 50		Points
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
CPCCOHS1001A	Work safely in the construction industry	10
HLTAID001	Provide cardiopulmonary resuscitation	10
	<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 4. 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>	Up to 50 points

Group B – Qualification Elective Units You may complete units to a maximum weighting of 120		Weighting Points
UEENEED104A	Use engineering applications software on personal computers	40
UEENEEG171A	Install, set up and commission interval metering	20
UEENEEI116A	Assemble, enter and verify operating instructions in microprocessor equipped devices	20
UEENEEI150A	Develop, enter and verify discrete control programs for programmable controllers	60
UEENEEK101A	Maintain safety and tidiness of remote area power supply systems	20
UEENEEK102A	Work safely with remote area power supply systems	20
UEENEEK124A	Solve basic problems in micro hydro systems	20
UEENEEK128A	Solve problems in stand-alone renewable energy systems	60
UEENEEK130A	Solve problems in wind energy conversion systems rated up to 10 kW	60
UEENEEK134A	Install ELV stand-alone photovoltaic power systems	60
UEENEEK136A	Install, configure and commission LV micro-hydro systems rated up to 6.4 kW	20
UEENEEK137A	Install, set up and maintain ELV micro-hydro systems rated up to 6.4 kW	20
UEENEEK143A	Install small wind energy conversion systems rated up to 10 kW for ELV stand-alone applications	20
UEENEEK144A	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

Group C – Qualification Elective Units You must complete units to a minimum weighting of 40 You may select all your elective units from this Group		Weighting Points
UEENEEG076A	Install and replace low voltage current transformer metering	20
UEENEEK110A	Co-ordinate maintenance of renewable energy (RE) apparatus and systems	20
UEENEEK135A	Design grid connected photovoltaic power supply systems	60

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

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.

UEE42011 Certificate IV in Electrical - Photovoltaic systems

Modification History

Release	Action	Core/Elective	Details	Points
2	Edit		Edit Name to reflect correct Unit title UEENEEED104A Use engineering applications software on personal computers	40
2	Update	Group A	HLTCPR211A Perform CPR	10

3	Edit	Group C	Edit Name to reflect correct Unit title UEENEEI151A Develop, enter and verify word and analogue control programs for programmable logic controllers.	60
3	Edit	Core	Edit Name to reflect correct Unit title UEENEEK145A Implement and monitor energy sector environmental and sustainable policies and procedures	20

4	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
4	Edit	Core	Correct title of UEENEEE101A - Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
4	Edit	Core	Correct title of UEENEEE102A - Fabricate, assemble and dismantle utilities industry components	40
4	Edit	Core	Correct title of UEENEEK135A - Design grid connected photovoltaic power supply systems	60
4	Edit	Core	Correct title of UEENEEK148A - Install, configure and commission LV grid connected photovoltaic power systems	40
4	Edit	Elective	Correct title of UEENEEC004B - Prepare specifications for the supply of materials and equipment for electrotechnology projects	40
4	Edit	Elective	Correct title of UEENEEED101A - Use computer applications relevant to a workplace	20
4	Edit	Elective	Correct title of UEENEEE192A - Produce detailed electrotechnology /utilities drawings using computer aided design equipment and software	60

4	Edit	Elective	Correct title of UEENEEG125A - Plan electrical installations with a low voltage demand up to 400 A per phase	40
4	Edit	Elective	Correct title of UEENEEG172A - Investigate and report on electrical incidents and causes	60
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 UEENEEK134A - Install ELV stand-alone photovoltaic power 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 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

Description

Scope

Select, install, set up, test, fault find, repair and maintain electrical systems and equipment in buildings and premises. It includes ERAC requirements for an 'Electrician's licence' and competencies to select, install, set up, test, fault find, repair and maintain photovoltaic systems and associated equipment

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

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
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
UEENEEG171A	Install, set up and commission interval metering	20
UEENEEK125A	Solve basic problems in photovoltaic energy apparatus and systems	20
UEENEEK135A	Design grid connected photovoltaic power supply systems	60
UEENEEK145A	Implement and monitor energy sector environmental and sustainable policies and procedures	20
UEENEEK148A	Install, configure and commission LV grid connected photovoltaic power systems	40
Total points in core		1100

Elective Competency Standard Units

Complete Elective units to achieve a total of weighting of 180 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 4. If units have not been assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0	90
B	Qualification Elective Units	0	90
C	Qualification Elective Units You may select all your elective units from this Group	90	180

Group A – Imported and Common Elective Units You may complete units to a maximum weighting of 90		Weighting Points
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
UEENEEED101A	Use computer applications relevant to a workplace	20
UEENEEEEE009B	Comply with scheduled and preventative maintenance program processes	20
UEENEEEEE020B	Provide basic instruction in the use of electrotechnology apparatus	20
CPCCOHS1001A	Work safely in the construction industry	10
HLTAID001	Provide cardiopulmonary resuscitation	10
	<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 4. 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>	Up to 90 points

Group B – Qualification Elective Units You may complete units to a maximum weighting of 90		Weighting Points
UEENEED104A	Use engineering applications software on personal computers	40
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
UEENEED120A	Select and arrange equipment for special LV electrical installations	60
UEENEEI116A	Assemble, enter and verify operating instructions in microprocessor equipped devices	20
UEENEEI150A	Develop, enter and verify discrete control programs for programmable controllers	60
UEENEEK123A	Carry out basic repairs to renewable energy apparatus	80
UEENEEK124A	Solve basic problems in micro hydro systems	20
UEENEEK127A	Diagnose and rectify faults in renewable energy control systems	60
UEENEEK128A	Solve problems in stand-alone renewable energy systems apparatus and systems	60
UEENEEK130A	Solve problems in wind energy conversion systems rated up to 10 kW	60
UEENEEK134A	Install ELV stand-alone photovoltaic power systems	60
UEENEEK136A	Install, configure and commission LV micro-hydro systems rated up to 6.4 kW	20
UEENEEK137A	Install, set up and maintain ELV micro-hydro systems rated up to 6.4 kW	20
UEENEEK143A	Install small wind energy conversion systems rated up to 10 kW for ELV stand-alone applications	20
UEENEEK144A	Install, configure and commission LV wind energy conversion systems rated up to 10 kW	40

Group C – Qualification Elective Units You must complete units to a minimum weighting of 90 You may select all your elective units from this Group		Weighting Points
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UEENEEC004B	Prepare specifications for the supply of materials and equipment for electrotechnology projects	40
UEENEEC005B	Estimate electrotechnology projects	40
UEENEEE192A	Produce detailed electrotechnology /utilities drawings using computer aided design equipment and software	60
UEENEEO076A	Install and replace low voltage current transformer metering	20
UEENEEO121A	Verify compliance and functionality of special LV electrical installations	40
UEENEEO122A	Conduct compliance inspection of single phase LV electrical installations	60
UEENEEO123A	Conduct compliance inspection of LV electrical installations with demand exceeding 100 A per phase	40
UEENEEO124A	Conduct compliance inspection of special LV electrical installations	60
UEENEEO125A	Plan electrical installations with a low voltage demand up to 400 A per phase	40
UEENEEO172A	Investigate and report on electrical incidents and causes	60
UEENEEO175A	Develop compliance policies and plans to conduct a electrical contracting business	80
UEENEEO179A	Develop detailed electrical drawings	60
UEENEEI151A	Develop, enter and verify word and analogue control programs for programmable logic controllers.	60
UEENEEI152A	Develop, enter and verify programs in Supervisory Control and Data Acquisition systems	60
UEENEOK152A	Develop strategies to address sustainability issues for electrical installations	20

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.

UEE42111 Certificate IV in Electrotechnology - Electrical Contracting

Modification History

Release	Action	Core/Elective	Details	Points
3	Edit	Core	Edit Name to reflect correct Unit title UEENEEK145A Implement and monitor energy sector environmental and sustainable policies and procedures	20

4	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
4	Edit	Core	Correct title of UEENEEE101A - Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
4	Edit	Core	Correct title of UEENEEE102A - Fabricate, assemble and dismantle utilities industry components	40
4	Edit	Elective	Correct title of UEENEEED101A - Use computer applications relevant to a workplace	20
4	Edit	Elective	Correct title of UEENEEEG113A - Install and maintain emergency safety systems	60
4	Edit	Elective	Correct title of UEENEEEG120A - Select and arrange equipment for special LV electrical installations	60
4	Edit	Elective	Correct title of UEENEEEG125A - Plan electrical installations with a low voltage demand up to 400 A per phase	40
4	Edit	Elective	Correct title of UEENEEEG128A - Plan low voltage switchboard and control panel layouts	40
4	Edit	Elective	Correct title of UEENEEEG132A - Carry out low voltage electrical field testing and report findings	60
4	Edit	Elective	Correct title of UEENEEEG172A - Investigate and report on electrical incidents and causes	60
4	Edit	Elective	Correct title of UEENEEEG177A - Select low voltage power factor correction equipment	40
4	Edit	Elective	Correct title of UEENEEEG185A - Select effective and efficient light sources and luminaries for given locations and designs	60

Description

Scope

This qualification provides competencies to set up and manage an electrical contracting business. It includes competencies required by regulations for an electrical contracting licence. It includes ERAC requirements for an 'Electrician's licence' and competencies to select, install, set up, test, fault find, repair and maintain photovoltaic systems and associated equipment.

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

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
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
UEENEEK145A	Implement and monitor energy sector environmental and sustainable policies and procedures	20
Total points in core		960

Elective Competency Standard Units

Complete Elective units to achieve a total of weighting of 240 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 4. If units have not been assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0	120
B	Qualification Elective Units	0	120
C	Qualification Elective Units You may select all your elective units from this Group	120	240

Group A – Imported and Common Elective Units

You may complete units to a maximum weighting of 120

		Weighting Points
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 workplace	20
UEENEEE009B	Comply with scheduled and preventative maintenance program processes	20
UEENEEE020B	Provide basic instruction in the use of electrotechnology apparatus	20
CPCCOHS1001A	Work safely in the construction industry	10
HLTAID001	Provide cardiopulmonary resuscitation	10
	<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 4. 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>	Up to 120 points

Group B – Qualification Elective Units		Weighting Points
You may complete units to a maximum weighting of 120		
UEENEEG113A	Install and maintain emergency safety systems	60
UEENEEG120A	Select and arrange equipment for special LV electrical installations	60
UEENEEG171A	Install, set up and commission interval metering	20
UEENEEG181A	Provide advice on effective and energy efficient lighting products	20
UEENEEG182A	Supply effective and efficient lighting products for domestic and small commercial applications	40
UEENEEG183A	Provide advice on the application of energy efficient lighting for ambient and aesthetic effect	20
UEENEEG189A	Install and maintain emergency lighting systems	40
UEENEEG104A	Use engineering applications software on personal computers	40
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

Group C – Qualification Elective Units		Weighting Points
You must complete units to a minimum weighting of 120		
You may select all your elective units from this Group		
UEENEEC004B	Prepare specifications for the supply of materials and equipment for electrotechnology projects	40
UEENEEC005B	Estimate electrotechnology projects	40
UEENEEC009B	Provide quotations for inspection and compliance audit services	20
UEENEEG076A	Install and replace low voltage current transformer metering	20
UEENEEG121A	Verify compliance and functionality of special LV electrical installations	40
UEENEEG122A	Conduct compliance inspection of single phase LV electrical installations	60
UEENEEG123A	Conduct compliance inspection of LV electrical installations with demand exceeding 100 A per phase	40
UEENEEG124A	Conduct compliance inspection of special LV	60

	electrical installations	
UEENEEG125A	Plan electrical installations with a low voltage demand up to 400 A per phase	40
UEENEEG128A	Plan low voltage switchboard and control panel layouts	40
UEENEEG132A	Carry out low voltage electrical field testing and report findings	60
UEENEEG162A	Set up and place LV electrical apparatus and associated circuits into service	40
UEENEEG172A	Investigate and report on electrical incidents and causes	60
UEENEEG175A	Develop compliance policies and plans to conduct a electrical contracting business	80
UEENEEG177A	Select low voltage power factor correction equipment	40
UEENEEG179A	Develop detailed electrical drawings	60
UEENEEG184A	Provide photometric data for illumination system design	60
UEENEEG185A	Select effective and efficient light sources and luminaries for given locations and designs	60
UEENEEG186A	Design effective and efficient lighting for residential and commercial buildings	20
UEENEEG188A	Prepare quotations for the supply of effective and efficient lighting products for lighting projects	20
UEENEEE192A	Produce detailed electrotechnology /utilities drawings using computer aided design equipment and software	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.

END OF QUALIFICATION

Custom Content Section

Not applicable.

UEE42211 Certificate IV in Instrumentation and Control

Modification History

Release	Action	Core/Elective	Details	Points
2	Edit		Edit Name to reflect correct Unit title UEENEEI104A Use engineering applications software on personal computers	40
2	Edit		Edit Name to Reflect correct Unit Title UEENEEI124A Fault find and repair analogue circuits and components in electronic control systems	
2	Update	Group A	HLTCPR211A Perform CPR	10

3	Edit	Core	Edit Name to reflect correct Unit title UEENEEI102A Solve problems in pressure measurement components and systems	40
3	Edit	Core	Edit Name to reflect correct Unit title UEENEEI103A Solve problems in density_level measurement components and systems	40
3	Edit	Core	Edit Name to reflect correct Unit title UEENEEI104A Solve problems in flow measurement components and systems	40
3	Edit	Core	Edit Name to reflect correct Unit title UEENEEI105A Solve problems in temperature measurement components and systems	40
3	Edit	Core	Edit Name to reflect correct Unit title UEENEEI106A Set up and adjust PID control loops	40
3	Edit	Core	Edit Name to reflect correct Unit title UEENEEI110A Set up and adjust advanced PID process control loops	40
3	Edit	Group C	Edit Name to reflect correct Unit title UEENEEI151A Develop, enter and verify word and analogue control programs for programmable logic controllers.	60
3	Edit	Core	Edit Name to reflect correct Unit title UEENEEK145A Implement and monitor energy sector environmental and sustainable policies and procedures	20
3	Edit	Group B	Edit Name to reflect correct Unit title	60

			UEENEEI114A Trouble shoot process control systems	
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4	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
4	Edit	Core	Correct title of UEENEEE101A - Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
4	Edit	Core	Correct title of UEENEEE102A - Fabricate, assemble and dismantle utilities industry components	40
4	Edit	Core	Correct title of UEENEEE119A - Solve problems in multiple path extra low voltage (ELV) a.c. circuits	40
4	Edit	Core	Correct title of UEENEEI101A - Use instrumentation drawings, specification, standards and equipment manuals	40
4	Edit	Core	Correct title of UEENEEI103A - Solve problems in density/level measurement components and systems	40
4	Edit	Core	Correct title of UEENEEI107A - Install instrumentation and control cabling and tubing	20
4	Edit	Core	Correct title of UEENEEI108A - Install instrumentation and control apparatus and associated equipment	20
4	Edit	Core	Correct title of UEENEEP013A - Disconnect - reconnect control devices connected to low voltage installation wiring	60
4	Edit	Elective	Correct title of UEENEEI101A - Use computer applications relevant to a workplace	20
4	Edit	Elective	Correct title of UEENEEH102A - Repairs basic electronic apparatus faults by replacement of components	40
4	Edit	Elective	Correct title of UEENEEI117A - Calibrate, adjust and test measuring instruments	40
4	Edit	Elective	Correct title of UEENEEI121A - Trouble shoot in measuring and analysis systems	40
4	Edit	Elective	Correct title of UEENEEI122A - Assist in commissioning process and instrumentation control systems	40
4	Edit	Elective	Correct title of UEENEEI126A - Provide solutions to pneumatic-hydraulic system operations	80
4	Edit	Elective	Correct title of UEENEEI148A - Solve problems in single phase electronic power control circuits	60

Description

Scope

This qualification provides competencies to select, install, set up, test, fault find, repair, maintain and commission systems and devices for measurement and recording of physical/chemical phenomenon and related process control 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 200 points in accordance with the Elective Competency Standard Units table below.

Note: UEENEEI112A - Those holding an 'Certificate III in Instrumentation and Control trade qualification or equivalent' meet 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
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
UEENEEE119A	Solve problems in multiple path extra low voltage (ELV) a.c. circuits	40
UEENEEE124A	Compile and produce an energy sector detailed report	60
UEENEEE137A	Document and apply measures to control OHS risks associated with electrotechnology work	20
UEENEEI101A	Use instrumentation drawings, specification, standards and equipment manuals	40
UEENEEI102A	Solve problems in pressure measurement components and systems	40
UEENEEI103A	Solve problems in density/level measurement components and systems	40
UEENEEI104A	Solve problems in flow measurement components and systems	40

UEENEEI105A	Solve problems in temperature measurement components and systems	40
UEENEEI106A	Set up and adjust PID control loops	40
UEENEEI107A	Install instrumentation and control cabling and tubing	20
UEENEEI108A	Install instrumentation and control apparatus and associated equipment	20
UEENEEI110A	Set up and adjust advanced PID process control loops	40
UEENEEI111A	Find and rectify faults in process final control elements	40
UEENEEI112A	Verify compliance and functionality of instrumentation and control installations	40
UEENEEI113A	Setup and configure human-machine interface (HMI) and industrial networks	60
UEENEEI124A	Fault find and repair analogue circuits and components in electronic control systems	60
UEENEEI139A	Diagnose and rectify faults in digital controls systems	60
UEENEEI150A	Develop, enter and verify discrete control programs for programmable controllers	60
UEENEEK145A	Implement and monitor energy sector environmental and sustainable policies and procedures	20
UEENEEP013A	Disconnect - reconnect control devices connected to low voltage installation wiring	60
Total points in core		1080

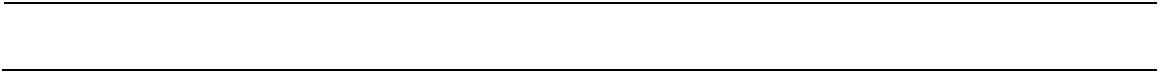
Elective Competency Standard Units

Complete Elective units to achieve a total of weighting of 200 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 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	60
B	Qualification Elective Units	0	100
C	Qualification Elective Units You may select all your elective units from this Group	100	200

Group A – Imported and Common Elective Units You may complete units to a maximum weighting of 60		Weighting Points
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
CPCCOHS1001A	Work safely in the construction industry	10
HLTAID001	Provide cardiopulmonary resuscitation	10
	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. Note: For further information see Application of the NQC Flexibility Formula, UEE11 Electrotechnology Training Package, Version 1, Volume 1 Qualification Framework	Up to 60 points



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
UEENEEH102A	Repairs basic electronic apparatus faults by replacement of components	40
UEENEEH111A	Troubleshoot single phase input d.c. power supplies	40
UEENEEH112A	Troubleshoot digital sub-systems	80
UEENEEI114A	Trouble shoot process control systems	60
UEENEEI117A	Calibrate, adjust and test measuring instruments	40
UEENEEI118A	Set up weighting measuring and control instruments	20
UEENEEM019A	Attend to breakdowns in hazardous areas — coal mining	20
UEENEEM020A	Attend to breakdowns in hazardous areas — gas atmospheres	20
UEENEEM021A	Attend to breakdowns in hazardous areas — dust atmospheres	20
UEENEEM022A	Attend to breakdowns in hazardous areas — pressurisation	20
UEENEEM023A	Install explosion-protected equipment and wiring systems — coal mining	60
UEENEEM024A	Install explosion-protected equipment and wiring systems — gas atmospheres	60
UEENEEM025A	Install explosion-protected equipment and wiring systems — dust atmospheres	60
UEENEEM026A	Install explosion-protected equipment and wiring systems — pressurisation	60
UEENEEM027A	Maintain equipment in hazardous areas — coal mining	60
UEENEEM028A	Maintain equipment in hazardous areas — gas atmospheres	60
UEENEEM029A	Maintain equipment in hazardous areas — dust atmospheres	60
UEENEEM030A	Maintain equipment in hazardous areas — pressurisation	60
UEENEEM076A	Use and maintain the integrity of a portable gas detection device	20

UEENEEM077A	Install and maintain the integrity of fixed gas detection equipment	20
UEENEEM080A	Report on the integrity of explosion-protected equipment in a hazardous area	20

Group C – Qualification Elective Units		Weighting Points
You must complete units to a minimum weighting of 100 You may select all your elective units from this Group		
UEENEEM005B	Estimate electrotechnology projects	40
UEENEEM121A	Trouble shoot in measuring and analysis systems	40
UEENEEM122A	Assist in commissioning process and instrumentation control systems	40
UEENEEM125A	Provide solutions to fluid circuit operations	60
UEENEEM126A	Provide solutions to pneumatic-hydraulic system operations	80
UEENEEM148A	Solve problems in single phase electronic power control circuits	60
UEENEEM151A	Develop, enter and verify word and analogue control programs for programmable logic controllers.	60
UEENEEM152A	Develop, enter and verify programs in Supervisory Control and Data Acquisition systems	60
UEENEEM155A	Develop structured programs to control external devices	40
UEENEEM078A	Manage compliance of hazardous areas	20
UEENEEM038A	Conduct testing of hazardous areas installations — coal mining	40
UEENEEM039A	Conduct testing of hazardous areas installations — gas atmospheres	40
UEENEEM040A	Conduct testing of hazardous areas installations — dust atmospheres	40
UEENEEM041A	Conduct testing of hazardous area installations — pressurisation	40
UEENEEM042A	Conduct visual inspection of hazardous areas installations	40
UEENEEM043A	Conduct detailed inspection of hazardous areas installations — coal mining	40
UEENEEM044A	Conduct detailed inspection of hazardous areas installations — gas atmospheres	40

UEENEEM045A	Conduct detailed inspection of hazardous areas installations — dust atmospheres	40
UEENEEM046A	Conduct detailed inspection of hazardous areas installations — pressurisation	40

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.

UEE42611 Certificate IV in Hazardous areas - Electrical

Modification History

Release	Action	Core/Elective	Details	Points
2	Update	Group A	HLTCPR211A Perform CPR	10

3	Edit	Core	Edit Name to reflect correct Unit title UEENEEK145A Implement and monitor energy sector environmental and sustainable policies and procedures	20
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4	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
4	Edit	Core	Correct title of UEENEEE101A - Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
4	Edit	Core	Correct title of UEENEEE102A - Fabricate, assemble and dismantle utilities industry components	40
4	Edit	Core	Correct title of UEENEEM080A - Report on the integrity of explosion-protected equipment in a hazardous area	20
4	Edit	Elective	Correct title of UEENEED101A - Use computer applications relevant to a workplace	20

Description

Scope

This qualification provides competencies to supervise selection, installation, commissioning maintenance and testing of explosion-protected equipment and systems for control and monitoring of plant and processes. The qualification provides competencies in working with explosion protections techniques with elections in how they apply to coal mining, gas and dust atmospheres. It includes ERAC requirements for an 'Electrician's licence' and competencies to select, install, set up, test, fault find, repair and maintain stand alone 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 300 points in accordance with the Elective Competency Standard Units table below.

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
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
UEENEEK145A	Implement and monitor energy sector environmental and sustainable policies and procedures	20
UEENEEM080A	Report on the integrity of explosion-protected equipment in a hazardous area	20
Total points in core		980

Elective Competency Standard Units

Complete Elective units to achieve a total of weighting of 300 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 4. If units have not been assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0	60
B	Qualification Elective Units	0	80
C	Qualification Elective Units You may select all your elective units from this Group	220	300

Group A – Imported and Common Elective Units

You may complete units to a maximum weighting of 60

		Weighting Points
UEENEEC001B	Maintain documentation	20
UEENEEC002B	Source and purchase material/parts for installation or	20

	service jobs	
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
CPCCOHS1001A	Work safely in the construction industry	10
HLTAID001	Provide cardiopulmonary resuscitation	10
	<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 4. 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>	Up to 60 points

Group B – Qualification Elective Units You may complete units to a maximum weighting of 80		Weighting Points
UEENEEM019A	Attend to breakdowns in hazardous areas — coal mining	20
UEENEEM020A	Attend to breakdowns in hazardous areas — gas atmospheres	20
UEENEEM021A	Attend to breakdowns in hazardous areas — dust atmospheres	20
UEENEEM022A	Attend to breakdowns in hazardous areas — pressurisation	20
UEENEEM023A	Install explosion-protected equipment and wiring systems — coal mining	60
UEENEEM024A	Install explosion-protected equipment and wiring systems — gas atmospheres	60
UEENEEM025A	Install explosion-protected equipment and wiring systems — dust atmospheres	60
UEENEEM026A	Install explosion-protected equipment and wiring systems — pressurisation	60
UEENEEM027A	Maintain equipment in hazardous areas — coal mining	60
UEENEEM028A	Maintain equipment in hazardous areas — gas atmospheres	60
UEENEEM029A	Maintain equipment in hazardous areas — dust atmospheres	60
UEENEEM030A	Maintain equipment in hazardous areas — pressurisation	60
UEENEEM031A	Overhaul and repair of explosion-protected equipment — coal mining	60
UEENEEM032A	Overhaul and repair of explosion-protected equipment — flameproof enclosures	60
UEENEEM033A	Overhaul and repair of explosion-protected equipment — gas atmospheres	60
UEENEEM034A	Overhaul and repair of explosion-protected equipment — dust atmospheres	40
UEENEEM060A	Carry out overhaul and repair of explosion-protected equipment — coal mining	60
UEENEEM061A	Carry out overhaul and repair of explosion-protected equipment — flameproof enclosures	60
UEENEEM062A	Carry out overhaul and repair of explosion-protected equipment — gas atmospheres	60

UEENEEM063A	Carry out overhaul and repair of explosion-protected equipment — dust atmospheres	60
UEENEEM070A	Repair reeling, trailing and flexible cables	60
UEENEEM071A	Test reeling, trailing and flexible cables	60
UEENEEM072A	Inspect and fit plugs/couplers for reeling, trailing and flexible cables	60
UEENEEM073A	Verify compliance of repaired reeling, trailing and flexible cables	60
UEENEEM076A	Use and maintain the integrity of a portable gas detection device	20
UEENEEM077A	Install and maintain the integrity of fixed gas detection equipment	20

Group C – Qualification Elective Units		Weighting Points
You must complete units to a minimum weighting of 220 You may select all your elective units from this Group		
UEENEEM038A	Conduct testing of hazardous areas installations — coal mining	40
UEENEEM039A	Conduct testing of hazardous areas installations — gas atmospheres	40
UEENEEM040A	Conduct testing of hazardous areas installations — dust atmospheres	40
UEENEEM041A	Conduct testing of hazardous area installations — pressurisation	40
UEENEEM042A	Conduct visual inspection of hazardous areas installations	40
UEENEEM043A	Conduct detailed inspection of hazardous areas installations — coal mining	40
UEENEEM044A	Conduct detailed inspection of hazardous areas installations — gas atmospheres	40
UEENEEM045A	Conduct detailed inspection of hazardous areas installations — dust atmospheres	40
UEENEEM046A	Conduct detailed inspection of hazardous areas installations — pressurisation	40
UEENEEM047A	Develop and manage maintenance programs for hazardous areas electrical equipment — coal mining	20
UEENEEM048A	Develop and manage maintenance programs for hazardous areas electrical equipment — gas atmospheres	20

UEENEEM049A	Develop and manage maintenance programs for hazardous areas electrical equipment — dust atmospheres	20
UEENEEM050A	Develop and manage maintenance programs for hazardous areas electrical equipment — pressurisation	20
UEENEEM054A	Plan electrical installations for hazardous areas — gas atmospheres	20
UEENEEM055A	Plan electrical installations for hazardous areas — dust atmospheres	20
UEENEEM056A	Plan electrical installations for hazardous areas — pressurisation	20
UEENEEM074A	Plan electrical installations in hazardous areas — coal mining	20
UEENEEM078A	Manage compliance of hazardous areas	20

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.

UEE42711 Certificate IV in Air-conditioning and Refrigeration Servicing

Modification History

Release	Action	Core/Elective	Details	Points
3	Update	Group A	HLTCPR211A Perform CPR	10

4	Edit	Group C	Edit Name to reflect correct Unit title UEENEEI151A Develop, enter and verify word and analogue control programs for programmable logic controllers.	60
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5	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
5	Edit	Core	Correct title of UEENEEJ110A - Select refrigerant piping, accessories and associated controls	50
5	Edit	Core	Correct title of UEENEEJ153A - Find and rectify faults in motors and associated controls in refrigeration and air conditioning systems	50
5	Edit	Core	Correct title of UEENEEK145A - Implement and monitor energy sector environmental and sustainable policies and procedures	20
5	Edit	Elective	Correct title of UEENEEJ178A - Apply safety awareness and legal requirements for ammonia refrigerant	10

Description

Scope

This qualification provides competencies in high level fault diagnosis and rectification, commissioning and maintenance of refrigeration systems and equipment that apply to commercial food storage and preservation, air-conditioning, air distribution equipment and/or special applications. It includes regulatory requirements for purchasing and handling refrigerants.

Note:

The Ozone Protection and Synthetic Greenhouse Gas Legislation Amendment Bill 2003 apply to this qualification. Prior to planning the delivery of any training and/or assessment activities all legislative and regulatory requirements shall be identified and included.

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

Note: UEENEEJ109A - Those holding an ‘Certificate III in Refrigeration and Air-conditioning trade qualification or equivalent’ meet 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
UEENEEE101A	Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
UEENEEE102A	Fabricate, assemble and dismantle utilities industry components	40
UEENEEE103A	Solve problems in ELV single path circuits	40
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
UEENEEJ102A	Prepare and connect refrigerant tubing and fittings	30
UEENEEJ103A	Establish the basic operating conditions of vapour compression systems	60
UEENEEJ104A	Establish the basic operating conditions of air conditioning systems	20
UEENEEJ106A	Install refrigerant pipe work, flow controls and accessories	60
UEENEEJ107A	Install air conditioning and refrigeration systems, major components and associated equipment	80

UEENEEJ108A	Recover, pressure test, evacuate, charge and leak test refrigerants	60
UEENEEJ109A	Verify functionality and compliance of refrigeration and air conditioning installations	20
UEENEEJ110A	Select refrigerant piping, accessories and associated controls	50
UEENEEJ111A	Diagnose and rectify faults in air conditioning and refrigeration systems and components	40
UEENEEJ112A	Diagnose and rectify faults in complex air conditioning/ refrigeration systems	100
UEENEEJ113A	Commission air conditioning and refrigeration systems	40
UEENEEJ153A	Find and rectify faults in motors and associated controls in refrigeration and air conditioning systems	50
UEENEEJ170A	Diagnose and rectify faults in air conditioning and refrigeration control systems	70
UEENEEK145A	Implement and monitor energy sector environmental and sustainable policies and procedures	20
UEENEEP012A	Disconnect / reconnect composite appliances connected to low voltage installation wiring	60
UEENEEP017A	Locate and rectify faults in low voltage composite appliances using set procedures	20
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
Total points in core		1100

Elective Competency Standard Units		
Complete Elective units to achieve a total of weighting of 180 points from the following groups:		
Groups	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 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 90
B	Qualification Elective Units	0 90
C	Qualification Elective Units You may select all your elective units from this Group	90 180

Group A – Imported and Common Elective Units		Weighting Points
You may complete units to a maximum weighting of 90		
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
UEENEEED101A	Use computer applications relevant to a workplace	20
UEENEEEE009B	Comply with scheduled and preventative maintenance program processes	20
UEENEEEE020B	Provide basic instruction in the use of electrotechnology apparatus	20
CPCCOHS1001A	Work safely in the construction industry	10
HLTAID001	Provide cardiopulmonary resuscitation	10
	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	Up to 90 points

	<p>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>	
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Group B – Qualification Elective Units		Weighting Points
You may complete units to a maximum weighting of 90		
UEENEEI116A	Assemble, enter and verify operating instructions in microprocessor equipped devices	20
UEENEEI150A	Develop, enter and verify discrete control programs for programmable controllers	60
UEENEEJ114A	Resolve problems in hydronic systems	40
UEENEEJ115A	Resolve problems in beverage dispensers	40
UEENEEJ116A	Resolve problems in transport refrigeration systems	20
UEENEEJ117A	Resolve problems in ultra-low temperature refrigeration systems	20
UEENEEJ118A	Resolve problems in post mix refrigeration systems	20
UEENEEJ119A	Resolve problems in ice making systems	20
UEENEEJ120A	Resolve problems in industrial refrigeration systems	20
UEENEEJ167A	Resolve problems in central plant air conditioning systems	40
UEENEEJ168A	Maintain microbial control of refrigeration and air conditioning systems	20
UEENEEJ171A	Resolve problems in refrigerated beverage vending cabinets	20
UEENEEJ174A	Apply safety awareness and legal requirements for hydrocarbon refrigerants	10
UEENEEJ175A	Service and repair self contained hydrocarbon air conditioning and refrigeration systems	20
UEENEEJ176A	Install and commission hydrocarbon refrigeration systems, components and associated equipment	20
UEENEEJ178A	Apply safety awareness and legal requirements for ammonia refrigerant	10
UEENEEJ179A	Repair and service ammonia refrigeration systems	20
UEENEEJ180A	Install and commission ammonia refrigeration systems, components and associated equipment	20
UEENEEJ182A	Repair and service secondary refrigeration systems	20
UEENEEJ184A	Apply safety awareness and legal requirements for carbon dioxide refrigerant	10
UEENEEJ185A	Repair and service carbon dioxide refrigeration systems	20
UEENEEJ186A	Install and commission carbon dioxide refrigeration systems, components and associated equipment	20

UEENEEJ188A	Repair and service self contained carbon dioxide refrigeration and heat pump systems	20
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Group C – Qualification Elective Units You must complete units to a minimum weighting of 90 You may select all your elective units from this Group		Weighting Points
UEENEEE110A	Develop and implement energy sector maintenance programs	60
UEENEEI151A	Develop, enter and verify word and analogue control programs for programmable logic controllers.	60
UEENEEI152A	Develop, enter and verify programs in Supervisory Control and Data Acquisition systems	60
UEENEEJ121A	Monitor and adjust refrigeration energy management systems	40
UEENEEJ122A	Diagnose faults in complex HVAC /refrigeration control systems	80
UEENEEJ123A	Commission complex (HVAC) heating, ventilation and air conditioning systems	80
UEENEEJ124A	Commission refrigeration/air conditioning hydronic systems	80
UEENEEJ125A	Commission complex refrigeration systems and equipment	80
UEENEEJ126A	Commission complex refrigeration/air conditioning control systems	40

Note:

1. Pre-requisite 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 pre-requisite pathway for the progression to achieve particular competencies or qualification at a higher level.

END OF QUALIFICATION

UEE42811 Certificate IV in Air-conditioning Systems Energy Management and Control

Modification History

Release	Action	Core/Elective	Details	Points
3	Update	Group A	HLTCPR211A Perform CPR	10

4	Edit	Group C	Edit Name to reflect correct Unit title UEENEEI151A Develop, enter and verify word and analogue control programs for programmable logic controllers.	60
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5	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
5	Edit	Core	Correct title of UEENEEJ110A - Select refrigerant piping, accessories and associated controls	50
5	Edit	Core	Correct title of UEENEEJ153A - Find and rectify faults in motors and associated controls in refrigeration and air conditioning systems	50
5	Edit	Core	Correct title of UEENEEK145A - Implement and monitor energy sector environmental and sustainable policies and procedures	20
5	Edit	Elective	Correct title of UEENEEED101A - Use computer applications relevant to a workplace	20

Description

Scope

This qualification provides competencies to develop strategies for the reduction of energy in buildings and to recommend changes in the way in which energy is controlled in the building either by the installation of new control equipment or by the modification or re-programming of that existing. It includes regulatory requirements for purchasing and handling refrigerants.

Note:

The Ozone Protection and Synthetic Greenhouse Gas Legislation Amendment Bill 2003 apply to this qualification. Prior to planning the delivery of any training and/or assessment activities all legislative and regulatory requirements shall be identified and included.

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

Note: UEENEEJ109A - Those holding an ‘Certificate III in Refrigeration and Air-conditioning trade qualification or equivalent’ meet the requirements of this unit and its pre-requisite requirements.

Core Competency Standard Units All Core competency standard units to be achieved		Weighting Points
UEENEEE117A	Implement and monitor energy sector OHS policies and procedures	20
UEENEEE124A	Compile and produce an energy sector detailed report	60
UEENEEE038B	Participate in development and follow a personal competency development plan	20
UEENEEE101A	Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
UEENEEE102A	Fabricate, assemble and dismantle utilities industry components	40
UEENEEE103A	Solve problems in ELV single path circuits	40
UEENEEE105A	Fix and secure electrotechnology equipment	20
UEENEEE107A	Use drawings, diagrams, schedules, standards, codes and specifications	40
UEENEEE137A	Document and apply measures to control OHS risks associated with electrotechnology work	20
UEENEEJ102A	Prepare and connect refrigerant tubing and fittings	30
UEENEEJ103A	Establish the basic operating conditions of vapour compression systems	60
UEENEEJ104A	Establish the basic operating conditions of air conditioning systems	20
UEENEEJ106A	Install refrigerant pipe work, flow controls and accessories	60
UEENEEJ107A	Install air conditioning and refrigeration systems, major components and associated equipment	80
UEENEEJ108A	Recover, pressure test, evacuate, charge and leak	60

	test refrigerants	
UEENEEJ109A	Verify functionality and compliance of refrigeration and air conditioning installations	20
UEENEEJ110A	Select refrigerant piping, accessories and associated controls	50
UEENEEJ111A	Diagnose and rectify faults in air conditioning and refrigeration systems and components	40
UEENEEJ113A	Commission air conditioning and refrigeration systems	40
UEENEEJ136A	Evaluate and report on building services energy management systems	80
UEENEEJ153A	Find and rectify faults in motors and associated controls in refrigeration and air conditioning systems	50
UEENEEJ170A	Diagnose and rectify faults in air conditioning and refrigeration control systems	70
UEENEEJ194A	Solve problems in low voltage refrigeration circuits	40
UEENEEK145A	Implement and monitor energy sector environmental and sustainable policies and procedures	20
UEENEEP012A	Disconnect / reconnect composite appliances connected to low voltage installation wiring	60
UEENEEP017A	Locate and rectify faults in low voltage composite appliances using set procedures	20
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
Total points in core		1120

Elective Competency Standard Units

Complete Elective units to achieve a total of weighting of 160 points from the following groups:

Groups	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 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	80
B	Qualification Elective Units	0	80
C	Qualification Elective Units You may select all your elective units from this Group	80	160

Group A – Imported and Common Elective Units You may complete units to a maximum weighting of 80		Weighting Points
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
CPCCOHS1001A	Work safely in the construction industry	10
HLTAID001	Provide cardiopulmonary resuscitation	10
	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. Note: For further information see Application of the NQC Flexibility Formula, UEE11 Electrotechnology Training Package, Version 1, Volume 1 Qualification Framework	Up to 80 points

Group B – Qualification Elective Units		Weighting Points
You may complete units to a maximum weighting of 80		
UEENEEI116A	Assemble, enter and verify operating instructions in microprocessor equipped devices	20
UEENEEI150A	Develop, enter and verify discrete control programs for programmable controllers	60
UEENEEJ167A	Resolve problems in central plant air conditioning systems	40

Group C – Qualification Elective Units		Weighting Points
You must complete units to a minimum weighting of 80		
You may select all your elective units from this Group		
UEENEEE110A	Develop and implement energy sector maintenance programs	60
UEENEEI151A	Develop, enter and verify word and analogue control programs for programmable logic controllers.	60
UEENEEI152A	Develop, enter and verify programs in Supervisory Control and Data Acquisition systems	60
UEENEEJ121A	Monitor and adjust refrigeration energy management systems	40
UEENEEJ122A	Diagnose faults in complex HVAC /refrigeration control systems	80
UEENEEJ123A	Commission complex (HVAC) heating, ventilation and air conditioning systems	80
UEENEEJ124A	Commission refrigeration/air conditioning hydronic systems	80
UEENEEJ125A	Commission complex refrigeration systems and equipment	80
UEENEEJ126A	Commission complex refrigeration/air conditioning control systems	40

Note:

1. Pre-requisite 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 pre-requisite pathway for the progression to achieve particular competencies or qualification at a higher level.

END OF QUALIFICATION

UEE42911 Certificate IV in Refrigeration and Air-conditioning Systems

Modification History

Release	Action	Core/Elective	Details	Points
2	Update	Group A	HLTCPR211A Perform CPR	10

5	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
5	Edit	Core	Correct title of UEENEEJ110A - Select refrigerant piping, accessories and associated controls	50
5	Edit	Core	Correct title of UEENEEJ153A - Find and rectify faults in motors and associated controls in refrigeration and air conditioning systems	50
5	Edit	Core	Correct title of UEENEEK145A - Implement and monitor energy sector environmental and sustainable policies and procedures	20
5	Edit	Elective	Correct title of UEENEEJ191A - Select residential air conditioning system equipment, components and accessories	40

Description

Scope

This qualification provides the competencies to determine heat loads and select equipment for basic commercial refrigeration or residential air conditioning applications. It includes regulatory requirements for purchasing and handling refrigerants.

Note:

1. Basic commercial refrigeration includes commercial coldrooms, freezer rooms and cabinets with single a compressor or condensing unit. This does not include large, complex commercial applications or industrial applications.
2. Residential air conditioning applications are those covered under the Building Code of Australia's – Class 1A Residential Buildings.
3. The Ozone Protection and Synthetic Greenhouse Gas Legislation Amendment Bill 2003 apply to this qualification. Prior to planning the delivery of any training and/or assessment activities all legislative and regulatory requirements shall be identified and included.

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

Note: UEENEEJ109A - Those holding an 'Certificate III in Refrigeration and Air-conditioning trade qualification or equivalent' meet 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
UEENEEE101A	Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
UEENEEE102A	Fabricate, assemble and dismantle utilities industry components	40
UEENEEE103A	Solve problems in ELV single path circuits	40
UEENEEE105A	Fix and secure electrotechnology equipment	20
UEENEEE107A	Use drawings, diagrams, schedules, standards, codes and specifications	40
UEENEEE124A	Compile and produce an energy sector detailed report	60
UEENEEE137A	Document and apply measures to control OHS risks associated with electrotechnology work	20
UEENEEJ102A	Prepare and connect refrigerant tubing and fittings	30
UEENEEJ103A	Establish the basic operating conditions of vapour compression systems	60
UEENEEJ104A	Establish the basic operating conditions of air conditioning systems	20
UEENEEJ106A	Install refrigerant pipe work, flow controls and accessories	60
UEENEEJ107A	Install air conditioning and refrigeration systems, major components and associated equipment	80
UEENEEJ108A	Recover, pressure test, evacuate, charge and leak test refrigerants	60
UEENEEJ109A	Verify functionality and compliance of	20

	refrigeration and air conditioning installations	
UEENEEJ110A	Select refrigerant piping, accessories and associated controls	50
UEENEEJ111A	Diagnose and rectify faults in air conditioning and refrigeration systems and components	40
UEENEEJ113A	Commission air conditioning and refrigeration systems	40
UEENEEJ127A	Establish the thermodynamic parameters of refrigeration and air conditioning systems	80
UEENEEJ129A	Establish heat loads for commercial refrigeration and/or air conditioning applications.	80
UEENEEJ153A	Find and rectify faults in motors and associated controls in refrigeration and air conditioning systems	50
UEENEEJ170A	Diagnose and rectify faults in air conditioning and refrigeration control systems	70
UEENEEJ192A	Analyse the psychrometric performance of HVAC/R systems	50
UEENEEJ194A	Solve problems in low voltage refrigeration circuits	40
UEENEEK145A	Implement and monitor energy sector environmental and sustainable policies and procedures	20
UEENEEP012A	Disconnect / reconnect composite appliances connected to low voltage installation wiring	60
UEENEEP017A	Locate and rectify faults in low voltage composite appliances using set procedures	20
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
Total points in core		1230

Elective Competency Standard Units

Complete Elective units to achieve a total of weighting of 50 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 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	20
B	Qualification Elective Units	0	30
C	Qualification Elective Units You may select all your elective units from this Group	20	50

Group A – Imported and Common Elective Units You may complete units to a maximum weighting of 20		Weighting Points
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
CPCCOHS1001A	Work safely in the construction industry	10
HLTAID001	Provide cardiopulmonary resuscitation	10
	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. Note: For further information see Application of the NQC Flexibility Formula, UEE11 Electrotechnology Training Package, Version 1, Volume 1 Qualification Framework	Up to 20 points

Group B – Qualification Elective Units You may complete units to a maximum weighting of 30		Weighting Points
UEENEEJ114A	Resolve problems in hydronic systems	40
UEENEEJ115A	Resolve problems in beverage dispensers	40
UEENEEJ116A	Resolve problems in transport refrigeration systems	20
UEENEEJ117A	Resolve problems in ultra-low temperature refrigeration systems	20
UEENEEJ118A	Resolve problems in post mix refrigeration systems	20
UEENEEJ119A	Resolve problems in ice making systems	20
UEENEEJ120A	Resolve problems in industrial refrigeration systems	20
UEENEEJ167A	Resolve problems in central plant air conditioning systems	40
UEENEEJ168A	Maintain microbial control of refrigeration and air conditioning systems	20
UEENEEJ171A	Resolve problems in refrigerated beverage vending cabinets	20
UEENEEJ174A	Apply safety awareness and legal requirements for hydrocarbon refrigerants	10
UEENEEJ175A	Service and repair self contained hydrocarbon air conditioning and refrigeration systems	20
UEENEEJ176A	Install and commission hydrocarbon refrigeration systems, components and associated equipment	20
UEENEEJ178A	Apply safety awareness and legal requirements for ammonia refrigerant	10
UEENEEJ179A	Repair and service ammonia refrigeration systems	20
UEENEEJ180A	Install and commission ammonia refrigeration systems, components and associated equipment	20
UEENEEJ182A	Repair and service secondary refrigeration systems	20
UEENEEJ184A	Apply safety awareness and legal requirements for carbon dioxide refrigerant	10
UEENEEJ185A	Repair and service carbon dioxide refrigeration systems	20
UEENEEJ186A	Install and commission carbon dioxide	20

	refrigeration systems, components and associated equipment	
UEENEEJ188A	Repair and service self contained carbon dioxide refrigeration and heat pump systems	20

Group C – Qualification Elective Units		Weighting Points
You must complete units to a minimum weighting of 20 You may select all your elective units from this Group		
UEENEEC005B	Estimate electrotechnology projects	40
UEENEEJ190A	Select basic commercial refrigeration system equipment, components and accessories	40
UEENEEJ191A	Select residential air conditioning system equipment, components and accessories	40

Note:

1. Pre-requisite 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 pre-requisite pathway for the progression to achieve particular competencies or qualification at a higher level.

END OF QUALIFICATION

UEE43011 Certificate IV in Electrical Equipment and Systems

Modification History

Release	Action	Core/Elective	Details	Points
2	Add	Group B	UETTDRIS67A Solve problems in energy supply network equipment	80
2	Add	Group B	UETTDRIS68A Solve problems in energy supply network protection equipment and systems	40
3	Edit	Group C	Edit Name to reflect correct Unit title UEENEEI124A Fault find and repair analogue circuits and components in electronic control systems	60

3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI102A Solve problems in pressure measurement components and systems	40
3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI103A Solve problems in density_level measurement components and systems	40
3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI104A Solve problems in flow measurement components and systems	40
3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI105A Solve problems in temperature measurement components and systems	40
3	Edit	Group C	Edit Name to reflect correct Unit title UEENEEI151A Develop, enter and verify word and analogue control programs for programmable logic controllers.	60
3	Edit	Core	Edit Name to reflect correct Unit title UEENEEK145A Implement and monitor energy sector environmental and sustainable policies and procedures	20
3	Edit	Group C	Edit Name to reflect correct Unit title UEENEEI124A Fault find and repair analogue circuits and components in electronic control systems	60

4	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
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4	Edit	Core	Correct title of UEENEEE101A - Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
4	Edit	Core	Correct title of UEENEEE102A - Fabricate, assemble and dismantle utilities industry components	40
4	Edit	Core	Correct title of UEENEEG199A - Conduct compliance and functional verification of electrical apparatus and existing circuits	40
4	Edit	Elective	Correct title of UEENEEA110A - Assemble, mount and connect control gear and switchgear	40
4	Edit	Elective	Correct title of UEENEEA112A - Fabricate and assemble bus bars	60
4	Edit	Elective	Correct title of UEENEEA113A - Mount and wire control panel equipment	40
4	Edit	Elective	Correct title of UEENEEED101A - Use computer applications relevant to a workplace	20
4	Edit	Elective	Correct title of UEENEEG110A - Find and repair faults in LV d.c. electrical apparatus and circuits	60
4	Edit	Elective	Correct title of UEENEEG111A - Carry out basic repairs to electrical components and equipment	40
4	Edit	Elective	Correct title of UEENEEG116A - Diagnose and rectify faults in traction lift systems	80
4	Edit	Elective	Correct title of UEENEEG119A - Maintain operation of electrical marine equipment and systems	60
4	Edit	Elective	Correct title of UEENEEG128A - Plan low voltage switchboard and control panel layouts	40
4	Edit	Elective	Correct title of UEENEEG129A - Overhaul and repair major switchgear and controlgear	60
4	Edit	Elective	Correct title of UEENEEG153A - Rewind three phase low voltage induction machines	60
4	Edit	Elective	Correct title of UEENEEG155A - Rewind HV three phase induction machines rated for voltages to 3.3 kV	60
4	Edit	Elective	Correct title of UEENEEG156A - Rewind HV three phase induction machines rated for voltages above 3.3 kV	60
4	Edit	Elective	Correct title of UEENEEG159A - Conduct mechanical tests on electrical machines and components	40
4	Edit	Elective	Correct title of UEENEEG164A - Repair and maintain mechanical components of electrical	40

			machines	
4	Edit	Elective	Correct title of UEENEEG165A - Maintain and service traction lifts systems and equipment	40
4	Edit	Elective	Correct title of UEENEEG166A - Install and maintain escalators, moving walks and treadways	40
4	Edit	Elective	Correct title of UEENEEG167A - Align and install traction lift equipment	20
4	Edit	Elective	Correct title of UEENEEG168A - Diagnose and rectify faults in complex lift systems	40
4	Edit	Elective	Correct title of UEENEEH102A - Repairs basic electronic apparatus faults by replacement of components	40
4	Edit	Elective	Correct title of UEENEEI101A - Use instrumentation drawings, specification, standards and equipment manuals	40
4	Edit	Elective	Correct title of UEENEEI103A - Solve problems in density/level measurement components and systems	40
4	Edit	Elective	Correct title of UEENEEI107A - Install instrumentation and control cabling and tubing	20
4	Edit	Elective	Correct title of UEENEEI108A - Install instrumentation and control apparatus and associated equipment	20
4	Edit	Elective	Correct title of UEENEEI116A - Assemble, enter and verify operating instructions in microprocessor equipped devices	20
4	Edit	Elective	Correct title of UEENEEI119A - Set up industrial field control devices	60
4	Edit	Elective	Correct title of UEENEEI126A - Provide solutions to pneumatic-hydraulic system operations	80
4	Edit	Elective	Correct title of UEENEEI148A - Solve problems in single phase electronic power control circuits	60
4	Edit	Elective	Correct title of UEENEEI149A - Solve problems in polyphase electronic power control circuits	60
4	Edit	Elective	Correct title of UEENEEJ153A - Find and rectify faults in motors and associated controls in refrigeration and air conditioning systems	50
4	Edit	Elective	Correct title of UETTDRIS44A - Perform HV field switching operation to a given schedule	40

Description

Scope

This qualification provides competencies to manufacture, fit, assemble, erect, operate, test, fault find, alter, repair electrical equipment and includes electrical wiring work only if that work is associated with assembling, maintaining, terminating or altering the wiring between electrical components within a plant or machinery. An electrical fitter is not authorised to install any electrical wiring systems within an electrical installation as prescribed by definitions contained in AS/NZS 3000.

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.

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

Note: UEENEEG199A - Those holding an 'Electrical Fitter 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
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
UEENEEG106A	Terminate cables, cords and accessories for low	40

	voltage circuits	
UEENEEG108A	Trouble-shoot and repair faults in low voltage electrical apparatus and circuits	40
UEENEEG109A	Develop and connect electrical control circuits	80
UEENEEG199A	Conduct compliance and functional verification of electrical apparatus and existing circuits	40
UEENEEK145A	Implement and monitor energy sector environmental and sustainable policies and procedures	20
Total points in core		860

Elective Competency Standard Units

Complete Elective units to achieve a total of weighting of 420 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 4. If units have not been assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0	60
B	Qualification Elective Units	0	200
C	Qualification Elective Units You may select all your elective units from this Group	220	420

Group A – Imported and Common Elective Units

You may complete units to a maximum weighting of 60

		Weighting Points
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	20

	maintenance program processes	
UEENEEE020B	Provide basic instruction in the use of electrotechnology apparatus	20
CPCCOHS1001A	Work safely in the construction industry	10
HLTAID001	Provide cardiopulmonary resuscitation	10
	<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 4. 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>	Up to 60 points

Group B – Qualification Elective Units		Weighting Points
You may complete units to a maximum weighting of 200		
UEENEEA110A	Assemble, mount and connect control gear and switchgear	40
UEENEEA112A	Fabricate and assemble bus bars	60
UEENEEA113A	Mount and wire control panel equipment	40
UEENEEED104A	Use engineering applications software on personal computers	40
UEENEEEF102A	Install and maintain cabling for multiple access to telecommunication services	120
UEENEEEF104A	Install and modify performance data communication copper cabling	40
UEENEEEF115A	Assemble and connect telecommunication frames and cabinets	60
UEENEEEG110A	Find and repair faults in LV d.c. electrical apparatus and circuits	60
UEENEEEG111A	Carry out basic repairs to electrical components and equipment	40
UEENEEEG116A	Diagnose and rectify faults in traction lift systems	80
UEENEEEG118A	Maintain operation of electrical mining equipment and systems	60
UEENEEEG119A	Maintain operation of electrical marine equipment and systems	60
UEENEEEG129A	Overhaul and repair major switchgear and controlgear	60
UEENEEEG150A	Wind electrical coils	40
UEENEEEG151A	Place and connect electrical coils	40
UEENEEEG152A	Rewind single phase machines	40
UEENEEEG153A	Rewind three phase low voltage induction machines	60
UEENEEEG154A	Rewind LV direct current machines	60
UEENEEEG157A	Conduct electrical tests on LV electrical machines	40
UEENEEEG159A	Conduct mechanical tests on electrical machines and components	40
UEENEEEG164A	Repair and maintain mechanical components of electrical machines	40
UEENEEEG165A	Maintain and service traction lifts systems and equipment	40

UEENEEG166A	Install and maintain escalators, moving walks and treadways	40
UEENEEG167A	Align and install traction lift equipment	20
UEENEEG181A	Provide advice on effective and energy efficient lighting products	20
UEENEEG182A	Supply effective and efficient lighting products for domestic and small commercial applications	40
UEENEEG183A	Provide advice on the application of energy efficient lighting for ambient and aesthetic effect	20
UEENEEH102A	Repairs basic electronic apparatus faults by replacement of components	40
UEENEEH111A	Troubleshoot single phase input d.c. power supplies	40
UEENEEI101A	Use instrumentation drawings, specification, standards and equipment manuals	40
UEENEEI102A	Solve problems in pressure measurement components and systems	40
UEENEEI103A	Solve problems in density/level measurement components and systems	40
UEENEEI104A	Solve problems in flow measurement components and systems	40
UEENEEI105A	Solve problems in temperature measurement components and systems	40
UEENEEI107A	Install instrumentation and control cabling and tubing	20
UEENEEI108A	Install instrumentation and control apparatus and associated equipment	20
UEENEEI116A	Assemble, enter and verify operating instructions in microprocessor equipped devices	20
UEENEEI150A	Develop, enter and verify discrete control programs for programmable controllers	60
UEENEEJ102A	Prepare and connect refrigerant tubing and fittings	30
UEENEEJ103A	Establish the basic operating conditions of vapour compression systems	60
UEENEEJ104A	Establish the basic operating conditions of air conditioning systems	20
UEENEEJ105A	Position, assemble and start up single head split air conditioning and water heating heat pump systems	70
UEENEEJ106A	Install refrigerant pipe work, flow controls and accessories	60
UEENEEJ108A	Recover, pressure test, evacuate, charge and leak test	60

	refrigerants	
UEENEEJ151A	Service small electrical appliances and power tools	60
UEENEEJ153A	Find and rectify faults in motors and associated controls in refrigeration and air conditioning systems	50
UEENEEJ154A	Find and rectify faults in appliance control systems and devices	60
UEENEEJ155A	Service refrigeration appliances	60
UEENEEJ156A	Service clothes washing machines and dryers	40
UEENEEJ157A	Service electrical heating appliances	60
UEENEEJ158A	Service dishwasher machines	40
UEENEEJ159A	Service gas heating appliances	40
UEENEEJ162A	Recover, pressure test, evacuate, charge and leak test refrigerants - appliances	50
UEENEEJ170A	Diagnose and rectify faults in air conditioning and refrigeration control systems	70
UEENEEJ173A	Service and repair microwave ovens	40
UEENEEJ194A	Solve problems in low voltage refrigeration circuits	40
UEENEEJ195A	Establish the basic operating conditions of vapour compression systems - appliances	50
UEENEEM019A	Attend to breakdowns in hazardous areas — coal mining	20
UEENEEM020A	Attend to breakdowns in hazardous areas — gas atmospheres	20
UEENEEM021A	Attend to breakdowns in hazardous areas — dust atmospheres	20
UEENEEM022A	Attend to breakdowns in hazardous areas — pressurisation	20
UEENEEM027A	Maintain equipment in hazardous areas — coal mining	60
UEENEEM028A	Maintain equipment in hazardous areas — gas atmospheres	60
UEENEEM029A	Maintain equipment in hazardous areas — dust atmospheres	60
UEENEEM030A	Maintain equipment in hazardous areas — pressurisation	60
UEENEEM031A	Overhaul and repair of explosion-protected equipment — coal mining	60

UEENEEM032A	Overhaul and repair of explosion-protected equipment — flameproof enclosures	60
UEENEEM033A	Overhaul and repair of explosion-protected equipment — gas atmospheres	60
UEENEEM034A	Overhaul and repair of explosion-protected equipment — dust atmospheres	40
UEENEEM060A	Carry out overhaul and repair of explosion-protected equipment — coal mining	60
UEENEEM061A	Carry out overhaul and repair of explosion-protected equipment — flameproof enclosures	60
UEENEEM062A	Carry out overhaul and repair of explosion-protected equipment — gas atmospheres	60
UEENEEM063A	Carry out overhaul and repair of explosion-protected equipment — dust atmospheres	60
UEENEEM070A	Repair reeling, trailing and flexible cables	60
UEENEEM071A	Test reeling, trailing and flexible cables	60
UEENEEM072A	Inspect and fit plugs/couplers for reeling, trailing and flexible cables	60
UEENEEM073A	Verify compliance of repaired reeling, trailing and flexible cables	60
UEENEEM076A	Use and maintain the integrity of a portable gas detection device	20
UEENEEM077A	Install and maintain the integrity of fixed gas detection equipment	20
UEENEEM080A	Report on the integrity of explosion-protected equipment in a hazardous area	20
UEENEEN102A	Assemble and wire internal electrical rail signalling equipment	30
UETTDRIS43A	Perform low voltage field switching operation to a given schedule.	50
UETTDRIS44A	Perform HV field switching operation to a given schedule	40
UETTDRIS47A	Sample, test, filter and reinstate insulating oil	40
UETTDRIS67A	Solve problems in energy supply network equipment	80
UETTDRIS68A	Solve problems in energy supply network protection equipment and systems	40
UETTDRSB29A	Maintain capacitor bank equipment for voltage regulation	40
UETTDRSB39A	Perform power system substation switching	50

	operation to a given schedule	
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Group C – Qualification Elective Units		Weighting Points
You must complete units to a minimum weighting of 220 You may select all your elective units from this Group		
UEENEEG128A	Plan low voltage switchboard and control panel layouts	40
UEENEEG155A	Rewind HV three phase induction machines rated for voltages to 3.3 kV	60
UEENEEG156A	Rewind HV three phase induction machines rated for voltages above 3.3 kV	60
UEENEEG158A	Conduct electrical tests on HV electrical machines	60
UEENEEG168A	Diagnose and rectify faults in complex lift systems	40
UEENEEG179A	Develop detailed electrical drawings	60
UEENEEI119A	Set up industrial field control devices	60
UEENEEI120A	Provide solutions to problems in industrial control systems	60
UEENEEI124A	Fault find and repair analogue circuits and components in electronic control systems	60
UEENEEI125A	Provide solutions to fluid circuit operations	60
UEENEEI126A	Provide solutions to pneumatic-hydraulic system operations	80
UEENEEI139A	Diagnose and rectify faults in digital controls systems	60
UEENEEI148A	Solve problems in single phase electronic power control circuits	60
UEENEEI149A	Solve problems in polyphase electronic power control circuits	60
UEENEEI151A	Develop, enter and verify word and analogue control programs for programmable logic controllers.	60
UEENEEI152A	Develop, enter and verify programs in Supervisory Control and Data Acquisition systems	60
UEENEEI155A	Develop structured programs to control external devices	40
UEENEEM038A	Conduct testing of hazardous areas installations — coal mining	40
UEENEEM039A	Conduct testing of hazardous areas installations — gas atmospheres	40
UEENEEM040A	Conduct testing of hazardous areas installations —	40

	dust atmospheres	
UEENEEM041A	Conduct testing of hazardous area installations — pressurisation	40
UEENEEM042A	Conduct visual inspection of hazardous areas installations	40
UEENEEM043A	Conduct detailed inspection of hazardous areas installations — coal mining	40
UEENEEM044A	Conduct detailed inspection of hazardous areas installations — gas atmospheres	40
UEENEEM045A	Conduct detailed inspection of hazardous areas installations — dust atmospheres	40
UEENEEM046A	Conduct detailed inspection of hazardous areas installations — pressurisation	40
UEENEEM047A	Develop and manage maintenance programs for hazardous areas electrical equipment — coal mining	20
UEENEEM048A	Develop and manage maintenance programs for hazardous areas electrical equipment — gas atmospheres	20
UEENEEM049A	Develop and manage maintenance programs for hazardous areas electrical equipment — dust atmospheres	20
UEENEEM050A	Develop and manage maintenance programs for hazardous areas electrical equipment — pressurisation	20
UEENEEM054A	Plan electrical installations for hazardous areas — gas atmospheres	20
UEENEEM055A	Plan electrical installations for hazardous areas — dust atmospheres	20
UEENEEM056A	Plan electrical installations for hazardous areas — pressurisation	20
UEENEEM074A	Plan electrical installations in hazardous areas - Coal mining	20
UEENEEM078A	Manage compliance of hazardous areas	20

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.

UEE43111 Certificate IV in Energy Efficiency and Assessment

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
3	Edit	Core	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 UEENEEE101A - Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
4	Edit	Core	Correct title of UEENEEE102A - Fabricate, assemble and dismantle utilities industry components	40
4	Edit	Elective	Correct title of UEENEED101A - Use computer applications relevant to a workplace	20
4	Edit	Elective	Correct title of UEENEED104A - Use engineering applications software on personal computers	40
4	Edit	Elective	Correct title of UEENEEG185A - Select effective and efficient light sources and luminaries for given locations and designs	60
4	Edit	Elective	Correct title of UEENEEG186A - Design effective and efficient lighting for residential and commercial buildings	20
4	Edit	Elective	Correct title of UEENEEK155A - Assess energy loads and uses for energy efficiency in industrial properties and enterprises	40

Description

Scope

This qualification provides competencies to conduct a residential, office and retail dwellings residential and Small Medium Enterprises (SME) energy audit and to develop energy efficient strategies to reduce an energy use in a range of energy services. The qualification also addresses the environmental and legislative contexts with the fundamental energy audit methodology to develop the initiative and solutions of sustainability and financial viability. The core competencies of this qualification meets the prescribed requirements for ERAC requirements for an 'Electrician's licence'.

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

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
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
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
Total points in core		1020

Elective Competency Standard Units

Complete Elective units to achieve a total of weighting of 260 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 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	120
B	Qualification Elective Units	0	120
C	Qualification Elective Units	140	260

Group A – Imported and Common Electives Units.

You may complete units to a maximum weighting of 120

		Weighting Points
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
UEENEEE006B	Apply methods to maintain currency of industry developments	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 4. 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 120 points

Group B – Qualification Elective Units		Weighting Points
You may complete units to a maximum weighting of 120		
UEENEED104A	Use engineering applications software on personal computers	40
UEENEED102A	Install and maintain cabling for multiple access to telecommunication services	120
UEENEED171A	Install, set up and commission interval metering	20
UEENEED181A	Provide advice on effective and energy efficient lighting products	20
UEENEED182A	Supply effective and efficient lighting products for domestic and small commercial applications	40
UEENEED183A	Provide advice on the application of energy efficient lighting for ambient and aesthetic effect	20
UEENEED140A	Plan the electrical installation of integrated systems	20
UEENEED141A	Develop electrical integrated systems	20

Group C – Qualification Elective Units. You must complete units to a minimum weighting of 140 You may select all your elective units from this Group		Weighting Points
UEENEEC005B	Estimate electrotechnology projects	40
UEENEEE110A	Develop and implement energy sector maintenance programs	60
UEENEEO076A	Install and replace low voltage current transformer metering	20
UEENEEO184A	Provide photometric data for illumination system design	60
UEENEEO185A	Select effective and efficient light sources and luminaries for given locations and designs	60
UEENEEO186A	Design effective and efficient lighting for residential and commercial buildings	20
UEENEEI142A	Develop an electrical integrated system interface for access through a touch screen	20
UEENEEI143A	Develop access control of electrical integrated systems using logic-based programming tools	20
UEENEEI144A	Develop interfaces for multiple access methods to monitor, schedule and control an electrical integrated system	20
UEENEK154A	Assess energy loads and uses for energy efficiency in commercial facilities	40
UEENEK155A	Assess energy loads and uses for energy efficiency in industrial properties and enterprises	40

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.

UEE43211 Certificate IV in Industrial Automation and Control

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
2	Update	Group A	HLTCPR211A Perform CPR	10
	Update	Group A	Edit Unit Code to reflect correct Unit Code TLILIC2001 Licence to operate a forklift truck	40

3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI102A Solve problems in pressure measurement components and systems	40
3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI103A Solve problems in density_level measurement components and systems	40
3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI104A Solve problems in flow measurement components and systems	40
3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI105A Solve problems in temperature measurement components and systems	40
3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI106A Set up and adjust PID control loops	40
3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI110A Set up and adjust advanced PID process control loops	40
3	Edit	Group C	Edit Name to reflect correct Unit title UEENEEI151A Develop, enter and verify word and analogue control programs for programmable logic controllers.	60
3	Edit	Core	Edit Name to reflect correct Unit title UEENEEK145A Implement and monitor energy sector environmental and sustainable policies and procedures	20

4	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
4	Edit	Core	Correct title of UEENEEE101A - Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
4	Edit	Core	Correct title of UEENEEE102A - Fabricate, assemble and dismantle utilities industry components	40
4	Edit	Core	Correct title of UEENEEE119A - Solve problems in multiple path extra low voltage (ELV) a.c. circuits	40
4	Edit	Core	Correct title of UEENEEI138A - Provide solutions to extra low voltage (ELV) electro-pneumatic control systems and drives	60
4	Edit	Core	Correct title of UEPOPS416B - Monitor the implementation of the enterprise's production-maintenance quality control procedures	20
4	Edit	Elective	Correct title of UEENEEI101A - Use computer applications relevant to a workplace	20

4	Edit	Elective	Correct title of UEENEED102A - Assemble, set-up and test computing devices	80
4	Edit	Elective	Correct title of UEENEED117A - Install and configure network systems for internetworking	120
4	Edit	Elective	Correct title of UEENEEG111A - Carry out basic repairs to electrical components and equipment	40
4	Edit	Elective	Correct title of UEENEEG164A - Repair and maintain mechanical components of electrical machines	60
4	Edit	Elective	Correct title of UEENEEH111A - Troubleshoot single phase input d.c. power supplies	40
4	Edit	Elective	Correct title of UEENEEH114A - Troubleshoot resonance circuits in an electronic apparatus	80
4	Edit	Elective	Correct title of UEENEEI101A - Use instrumentation drawings, specification, standards and equipment manuals	40
4	Edit	Elective	Correct title of UEENEEI103A - Solve problems in density/level measurement components and systems	40
4	Edit	Elective	Correct title of UEENEEI107A - Install instrumentation and control cabling and tubing	20
4	Edit	Elective	Correct title of UEENEEI108A - Install instrumentation and control apparatus and associated equipment	20
4	Edit	Elective	Correct title of UEENEEI116A - Assemble, enter and verify operating instructions in microprocessor equipped devices	20
4	Edit	Elective	Correct title of UEENEEI121A - Trouble shoot in measuring and analysis systems	40
4	Edit	Elective	Correct title of UEENEEI122A - Assist in commissioning process and instrumentation control systems	40
4	Edit	Elective	Correct title of UEENEEI126A - Provide solutions to pneumatic-hydraulic system operations	80
4	Edit	Elective	Correct title of UEENEEI148A - Solve problems in single phase electronic power control circuits	60
4	Edit	Elective	Correct title of UEENEEI149A - Solve problems in polyphase electronic power control circuits	60
4	Edit	Elective	Correct title of UEENEEP026A - Conduct in-service safety testing of electrical cord connected equipment and cord assemblies	20

Description

Scope

This qualification provides competencies to assemble, set up and program, fault find, repair and maintain automated equipment, apparatus, associated circuits and systems. It's includes the supervision of plant maintenance programs and providing technical advice to process staff.

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

Core Competency Standard Units All Core competency standard units to be achieved		Weighting Points
UEENEEED104A	Use engineering applications software on personal computers	40
UEENEEEE038B	Participate in development and follow a personal competency development plan	20
UEENEEEE101A	Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
UEENEEEE102A	Fabricate, assemble and dismantle utilities industry components	40
UEENEEEE104A	Solve problems in d.c. circuits	80
UEENEEEE107A	Use drawings, diagrams, schedules, standards, codes and specifications	40
UEENEEEE117A	Implement and monitor energy sector OHS policies and procedures	20
UEENEEEE119A	Solve problems in multiple path extra low voltage (ELV) a.c. circuits	40
UEENEEEE124A	Compile and produce an energy sector detailed report	60
UEENEEEE137A	Document and apply measures to control OHS risks associated with electrotechnology work	20
UEENEEII138A	Provide solutions to extra low voltage (ELV) electro-pneumatic control systems and drives	60
UEENEEK145A	Implement and monitor energy sector environmental and sustainable policies and procedures	20
UEPOPS202B	Apply Quality Systems To Work	20
UEPOPS337B	Maintain Quality Systems within the Team	20
UEPOPS416B	Monitor the implementation of the enterprise's production-maintenance quality control procedures	20
Total points in core		520

Elective Competency Standard Units		
Complete Elective units to achieve a total of weighting of 760 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 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
B	Qualification Elective Units	0
C	Qualification Elective Units You may select all your elective units from this Group	220
		760

Group A – Imported and Common Elective Units.		Weighting Points
You may complete units to a maximum weighting of 220		
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
UEENEED009B	Comply with scheduled and preventative maintenance program processes	20
UEENEED020B	Provide basic instruction in the use of electrotechnology apparatus	20
BSBINN301A	Promote Innovation in a team Environment	40
BSBCUS401B	Coordinate implementation of customer service strategies	40
BSBINM401A	Implement workplace information system	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
TLILIC2001A	Licence to operate a forklift truck	40
HLTAID001	Provide cardiopulmonary resuscitation	10

Group B – Qualification Elective Units.		Weighting Points
You may complete units to a maximum weighting of 540		
UEENEED102A	Assemble, set-up and test computing devices	80
UEENEED146A	Set up and configure basic local area network (LAN)	40
UEENEED108A	Select and arrange equipment for wireless communication networks	40
UEENEED111A	Carry out basic repairs to electrical components and equipment	40
UEENEED101A	Solve problems in electromagnetic devices and related circuits	60
UEENEED102A	Solve problems in low voltage a.c. circuits	80
UEENEED106A	Terminate cables, cords and accessories for low voltage circuits	40
UEENEED164A	Repair and maintain mechanical components of electrical machines	60
UEENEED111A	Troubleshoot single phase input d.c. power supplies	40
UEENEED114A	Troubleshoot resonance circuits in an electronic apparatus	80
UEENEED101A	Use instrumentation drawings, specification, standards and equipment manuals	40
UEENEED102A	Solve problems in pressure measurement components and systems	40
UEENEED103A	Solve problems in density/level measurement components and systems	40
UEENEED104A	Solve problems in flow measurement components and systems	40
UEENEED105A	Solve problems in temperature measurement components and systems	40
UEENEED106A	Set up and adjust PID control loops	40
UEENEED107A	Install instrumentation and control cabling and tubing	20

UEENEEI108A	Install instrumentation and control apparatus and associated equipment	20
UEENEEI110A	Set up and adjust advanced PID process control loops	40
UEENEEI111A	Find and rectify faults in process final control elements	40
UEENEEI112A	Verify compliance and functionality of instrumentation and control installations	40
UEENEEI113A	Setup and configure human-machine interface (HMI) and industrial networks	60
UEENEEI116A	Assemble, enter and verify operating instructions in microprocessor equipped devices	20
UEENEEI150A	Develop, enter and verify discrete control programs for programmable controllers	60
UEENEEM080A	Report on the integrity of explosion-protected equipment in a hazardous area	20
UEENEEM024A	Attach cords and plugs to electrical equipment for connection to a single phase 230 Volt supply	20
UEENEEM025A	Attach cords, cables and plugs to electrical equipment for connection to 1000 Va.c. or 1500 Vd.c. supply	20
UEENEEM026A	Conduct in-service safety testing of electrical cord connected equipment and cord assemblies	20

Group C – Qualification Elective Units.		Weighting Points
You must complete units to a minimum weighting of 220 You may select all your elective units from this Group		
UEENEEI117A	Install and configure network systems for internetworking	120
UEENEEI119A	Set up industrial field control devices	60
UEENEEI120A	Provide solutions to problems in industrial control systems	60
UEENEEI121A	Trouble shoot in measuring and analysis systems	40
UEENEEI122A	Assist in commissioning process and instrumentation control systems	40
UEENEEI125A	Provide solutions to fluid circuit operations	60
UEENEEI126A	Provide solutions to pneumatic-hydraulic system operations	80
UEENEEI139A	Diagnose and rectify faults in digital controls systems	60
UEENEEI148A	Solve problems in single phase electronic power control circuits	60
UEENEEI149A	Solve problems in polyphase electronic power control circuits	60

Group C – Qualification Elective Units. You must complete units to a minimum weighting of 220 You may select all your elective units from this Group		Weighting Points
UEENEEI151A	Develop, enter and verify word and analogue control programs for programmable logic controllers.	60
UEENEEI152A	Develop, enter and verify programs in Supervisory Control and Data Acquisition systems	60
UEENEEI155A	Develop structured programs to control external devices	40

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.

