

# **UEP40618 Certificate IV in Large Scale Wind Generation - Electrical**

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#### **Modification History**

Release 1. This is the first release of this qualification in the UEP - Electricity Supply Industry - Generation Sector Training Package.

#### **Qualification Description**

Participants gaining this qualification will be able to operate, test, find and diagnose faults and alter and repair electrical equipment and systems associated with large scale wind power generation. It may also include the supervision of others and the coordination of work activities.

This qualification may meet the requirements for a Restricted Electricians Licence (Electrical Fitter). Licensing requirements should be confirmed with the relevant state/territory licensing and regulatory authorities.

No licensing, legislative or certification requirements apply to this qualification at the time of publication.

## **Entry Requirements**

There are no entry requirements for this qualification.

## **Packaging Rules**

A total 1280 weighting points comprising 900 core weighting points, plus 380 elective weighting points from the general elective units listed below.

Choose a total of 380 weighting point from the general elective units list below of which between 0 and 60 weighting points can be taken from Group A. A total of 120 weighting points can be selected from Group B. Between 260 and 380 weighting points may be taken from Group C, you may select all your elective units from this group.

Up to 60 weighting points of the general elective units Group A, may be selected, with appropriate contextualisation, from any relevant nationally endorsed Training Package or accredited course, provided that selected units contribute to the vocational outcome of the qualification. Previously assigned weighting points are listed in UEP CVIG, if not listed weighting points will be 10 points unless directed from the ESI Generation Industry Reference Committee (IRC). The general elective units must contribute to the vocational outcomes of the qualification.

Where imported units are selected, care must be taken to ensure that all prerequisite units specified are complied with.

Where a prerequisite unit is attached to a unit, it is identified by this symbol  $\bot$ .

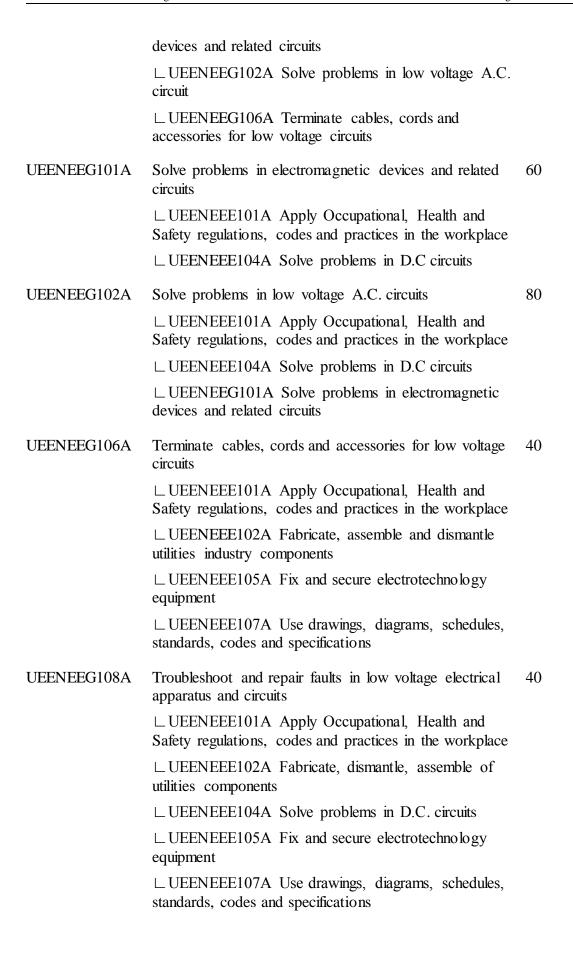
Approved Page 2 of 23

Core units		Weighting points
UEENEEE101A	Apply Occupational, Health and Safety regulations, codes and practices in the workplace	20
UEENEEE102A	Fabricate, assemble and dismantle utilities industry components	40
	☐ UEENEEE101A Apply Occupational, Health and Safety regulations, codes and practices in the workplace	
UEENEEE104A	Solve problems in D.C. circuits	80
	☐ UEENEEE101A Apply Occupational, Health and Safety regulations, codes and practices in the workplace	
UEENEEE105A	Fix and secure electrotechnology equipment	20
	☐ UEENEEE101A Apply Occupational, Health and Safety regulations, codes and practices in the workplace	
UEENEEE107A	Use drawings, diagrams, schedules, standards, codes and specifications	40
	☐ UEENEEE101A Apply Occupational, Health and Safety regulations, codes and practices in the workplace	
UEENEEE117A	Implement and monitor energy sector OHS policies and procedures	20
UEENEEE185A	Write work activity reports	20
UEENEEE137A	Document and apply measures to control OHS risks associated with electrotechnology work	20
	☐ UEENEEE101AApply Occupational, Health and Safety regulations, codes and practices in the workplace	
UEENEEE038B	Participate in development and follow a personal competency development plan	20
UEENEEG006A	Solve problems in single and three phase low voltage machines	80
	LUEENEEE101AApply Occupational, Health and Safety regulations, codes and practices in the workplace	
	∟UEENEEE102A Fabricate, dismantle, assemble of electrotechnology components	
	∟UEENEEE104A Solve problems in D.C circuits	

Approved Page 3 of 23

## equipment ∟ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications ∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits LUEENEEG102A Solve problems in low voltage A.C. circuit ∟ UEENEEG106A Terminate cables, cords and accessories for low voltage circuits **UEENEEG033A** Solve problems in single and three phase low voltage 60 electrical apparatus and circuits LUEENEEE101A Apply Occupational, Health and Safety regulations, codes and practices in the workplace LUEENEEE102A Fabricate, dismantle, assemble of electrotechnology components LUEENEEE104A Solve problems in D.C circuits □ UEENEEE105A Fix and secure electrotechnology equipment LUEENEE107A Use drawings, diagrams, schedules, standards, codes and specifications LUEENEEG101A Solve problems in electromagnetic devices and related circuits LUEENEEG102A Solve problems in low voltage A.C. circuit ∟ UEENEEG106A Terminate cables, cords and accessories for low voltage circuits UEENEEG063A Arrange circuits, control and protection for general 40 electrical installations LUEENEEE101A Apply Occupational, Health and Safety regulations, codes and practices in the workplace LUEENEEE102A Fabricate, dismantle, assemble of electrotechnology components ∟ UEENEEE104A Solve problems in D.C circuits ∟ UEENEEE105A Fix and secure electrotechnology equipment ∟ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications ∟ UEENEEG101A Solve problems in electromagnetic

Approved Page 4 of 23



Approved Page 5 of 23

	DEENEEG006A Solve problems in single and three phase low voltage machines	
	∟UEENEEG033A Solve problems in single and three phase electrical apparatus and circuits	
	LUEENEEG063A Arrange circuits, control and protection for general electrical installations	
	∟UEENEEG101A Solve problems in electromagnetic devices and related circuits	
	∟UEENEEG102A Solve problems in low voltage A.C. circuits	
UEENEEG109A	Develop and connect electrical control circuits	80
	☐ UEENEEE101AApply Occupational, Health and Safety regulations, codes and practices in the workplace	
	∟UEENEEE102A Fabricate, dismantle, assemble of electrotechnology components	
	∟UEENEEE104A Solve problems in D.C circuits	
	∟UEENEEE105A Fix and secure electrotechnology equipment	
	∟ UEENEEG006A Solve problems in single and three phase low voltage machines	
	LUEENEEG063A Arrange circuits, control and protection for general electrical installations	
	∟UEENEEG101A Solve problems in electromagnetic devices and related circuits	
	∟UEENEEG102A Solve problems in low voltage A.C. circuit	
	LUEENEEG106A Terminate cables, cords and accessories for low voltage circuit	
UEENEEG199A	Conduct compliance and functional verification of electrical apparatus and existing circuits	40
	□ UEENEEE101A Apply Occupational, Health and Safety regulations, codes and practices in the workplace	
	∟UEENEEE102A Fabricate, dismantle and assemble and utilities components	

Approved Page 6 of 23

	LUEENEEE104A Solve problems in D.C circuits		
	∟ UEENEEE105A Fix and secure electrotechnology equipment		
	∟ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications		
	∟ UEENEEE137A Document and apply measures to control OHS risks associated with electrotechnology work		
	∟ UEENEEG006A Solve problems in single and three phase low voltage machines		
	∟ UEENEEG033A Solve problems in single and three phase electrical apparatus and circuits		
	☐ UEENEEG063A Arrange circuits, control and protection for general electrical installations		
	∟ UEENEEG101ASolve problems in electromagnetic devices and related circuits		
	∟UEENEEG102A Solve problems in low voltage A.C. circuits		
	∟ UEENEEG106A Terminate cables, cords and accessories for low voltage circuits		
	∟UEENEEG108A Troubleshoot and repair faults in electrical apparatus and circuits		
	∟UEENEEG109A Develop and connect electrical control circuits		
UEENEEK 145A	Implement and monitor energy sector environmental and sustainable policies and procedures	20	
UEPMNT202	Carry out routine work activities in an ESI large scale wind generation environment	20	
UEPMNT371	Maintain large scale wind turbine generators	60	
Group A elective	units	Weighting	points
UEENEEC001B	Maintain documentation	20	
UEENEEC010B	Deliver a service to customers	20	
UEENEED101A	Use computer applications relevant to a workplace	20	

Page 7 of 23 Approved

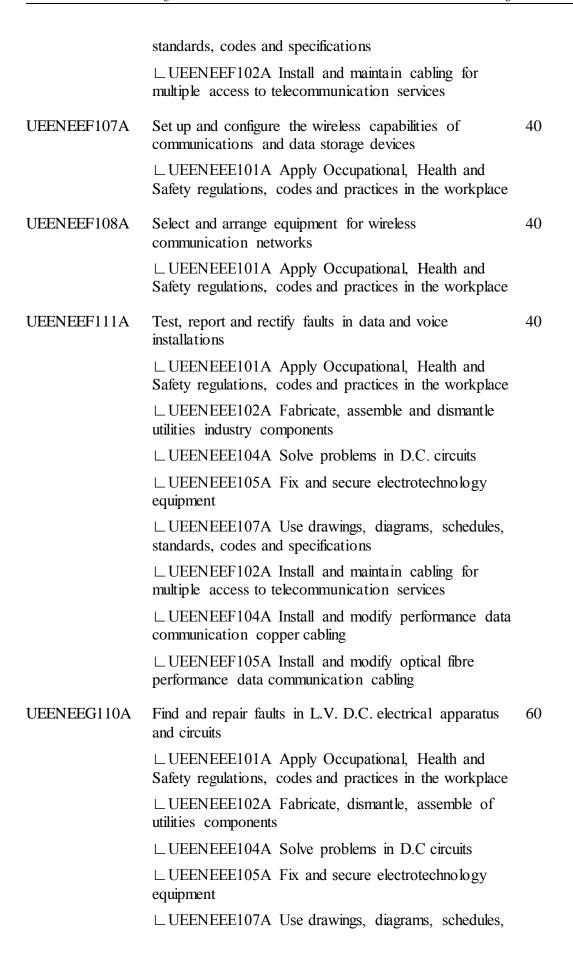
20

UEENEEE009B

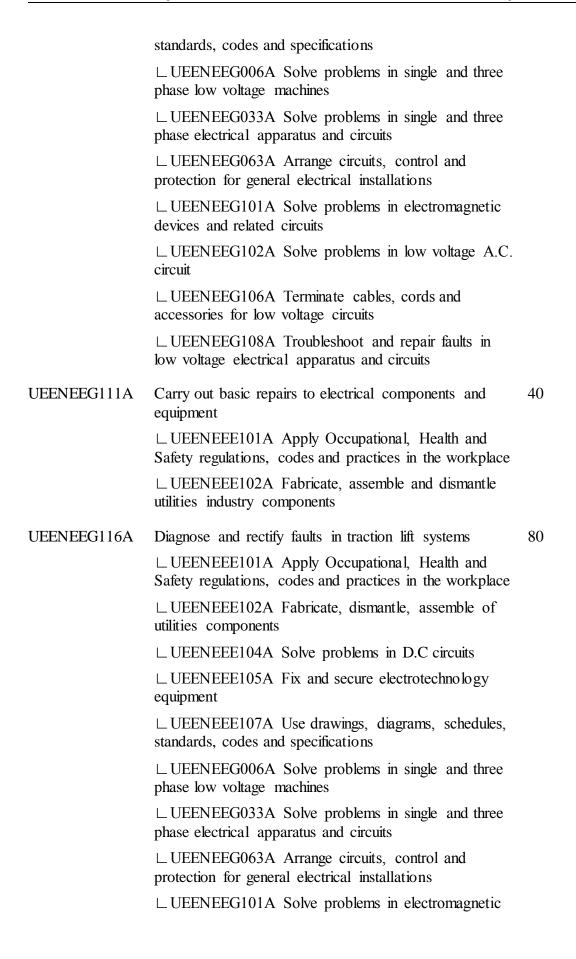
	program processes	
Group B elective units		Weighting points
UEENEED104A	Use engineering applications software on personal computers	40
	☐ UEENEEE101A Apply Work, Health Safety regulations, codes and practices in the workplace	
UEENEEI116A	Assemble, enter and verify operating instructions in microprocessor equipped devices	20
	☐ UEENEEE101A Apply Work, Health Safety regulations, codes and practices in the workplace	
UEENEEI150A	Develop, enter and verify discrete control programs for programmable controllers	60
	☐ UEENEEE101A Apply Occupational, Health and Safety regulations, codes and practices in the workplace	
UEENEEF102A	Install and maintain cabling for multiple access to telecommunication services	120
	☐ UEENEEE101A Apply Occupational, Health and Safety regulations, codes and practices in the workplace	
	∟UEENEEE102A Fabricate, assemble and dismantle utilities industry components	
	∟UEENEEE104A Solve problems in D.C. circuits	
	∟ UEENEEE105A Fix and secure electrotechnology equipment	
	☐ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications	
UEENEEF104A	Install and modify performance data communication copper cabling	40
	☐ UEENEEE101A Apply Occupational, Health and Safety regulations, codes and practices in the workplace	
	∟UEENEEE102A Fabricate, assemble and dismantle utilities industry components	
	∟ UEENEEE104A Solve problems in D.C. circuits	
	∟ UEENEEE105A Fix and secure electrotechnology equipment	
	∟UEENEEE107A Use drawings, diagrams, schedules,	

Comply with scheduled and preventative maintenance

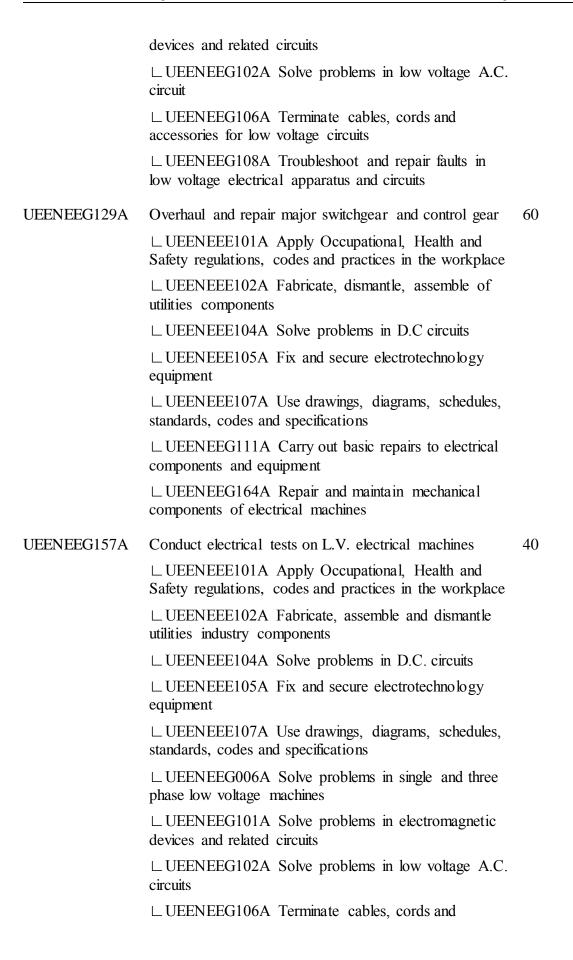
Approved Page 8 of 23



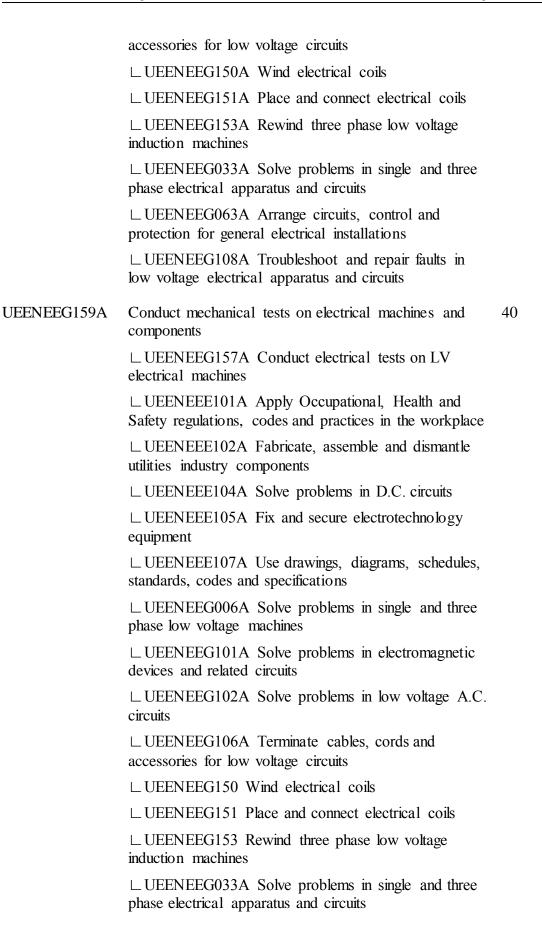
Approved Page 9 of 23



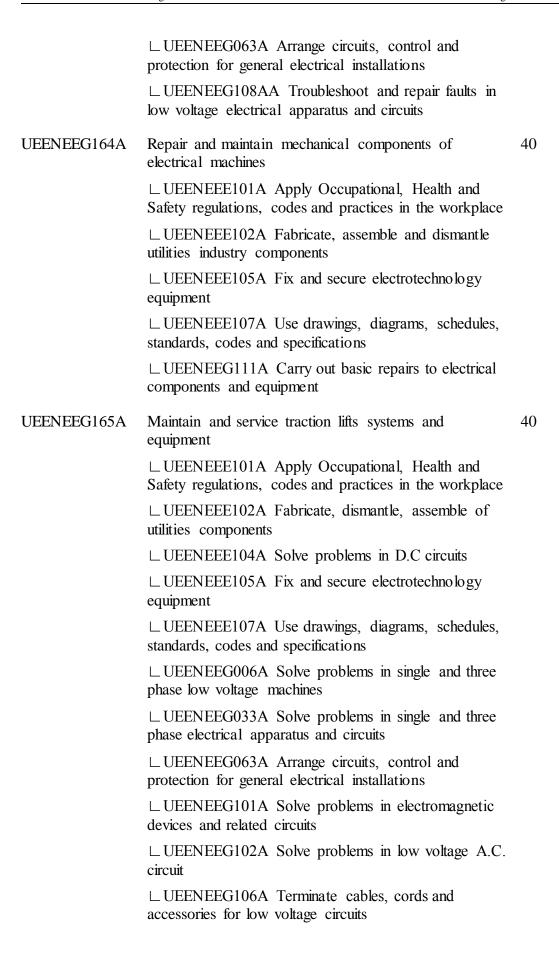
Approved Page 10 of 23



Approved Page 11 of 23



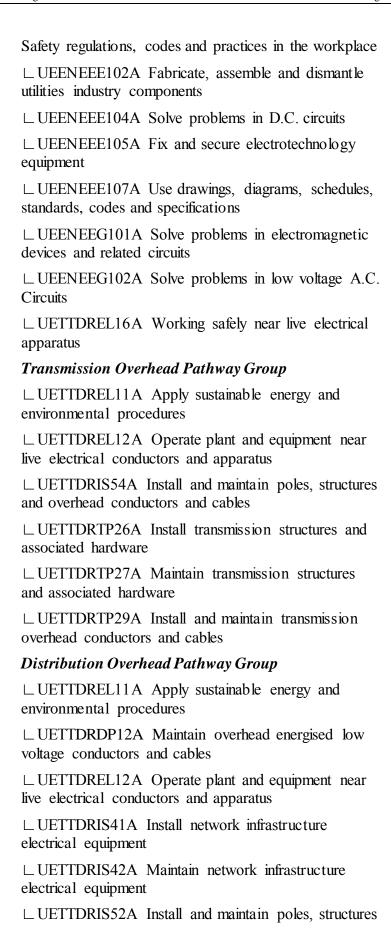
Approved Page 12 of 23



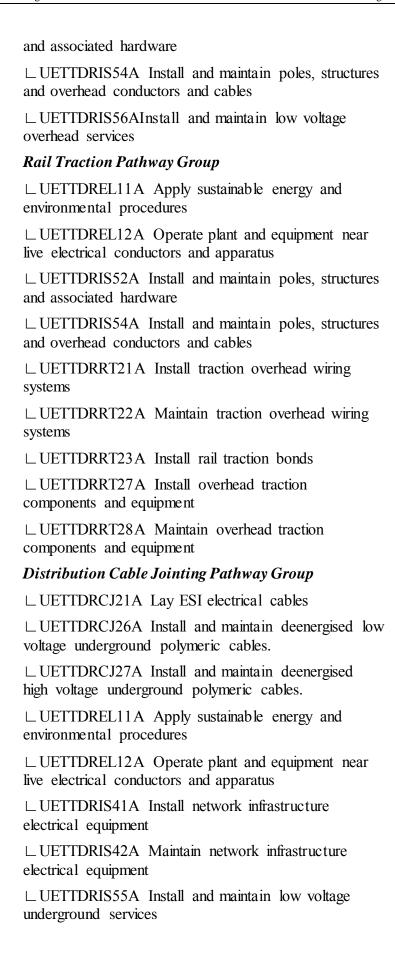
Approved Page 13 of 23

	∟ UEENEEG108A Troubleshoot and repair faults in low voltage electrical apparatus and circuits	
	LUEENEEG116A Diagnose and rectify faults in traction lift systems	
UEENEEH102A	Repair basic electronic apparatus faults by replacement of components	40
	☐ UEENEEE101A Apply Occupational, Health and Safety regulations, codes and practices in the workplace	
	∟UEENEEE102A Fabricate, dismantle, assemble of utilities industry components	
UEENEEH111A	Troubleshoot single phase input D.C. power supplies	40
	☐ UEENEEE101A Apply Occupational, Health and Safety regulations, codes and practices in the workplace	
	∟ UEENEEE104A Solve problems in D.C. circuits	
	☐ UEENEEH102A Repair basic electronic apparatus faults by replacement of components	
	∟ UEENEEH114A Troubleshoot resonance circuits in an electronic apparatus	
	∟ UEENEEE119A Solve problems in multiple path extra low voltage (ELV) A.C. circuits	
	∟ UEENEEH169A Solve problems in basic electronic circuits	
	∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits	
	∟ UEENEEG102A Solve problems in low voltage A.C. circuits	
UEENEEI101A	Use instrumentation drawings, specifications, standards and equipment manuals	40
	☐ UEENEEE101A Apply Work, Health Safety regulations, codes and practices in the workplace`	
	□ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications	
UEENEEK142A	Apply environmentally and sustainable procedures in the energy sector	20
UETTDRIS44A	Perform H.V. field switching operation to a given schedule	40
	∟ UEENEEE101A Apply Occupational, Health and	

Approved Page 14 of 23



Page 15 of 23 Approved Australian Industry Standards



Approved Page 16 of 23

#### Electrical Pathway Group

	☐ UEENEEE137A Document and apply measures to control OHS risks associated with electrotechnology work	
	∟ UEENEEG006A Solve problems in single and three phase low voltage machines	
	☐ UEENEEG033A Solve problems in single and three phase electrical apparatus and circuits	
	☐ UEENEEG063A Arrange circuits, control and protection for general electrical installations	
	∟ UEENEEG106A Terminate cables, cords and accessories for low voltage circuits	
	☐ UEENEEG108A Troubleshoot and repair faults in low voltage electrical apparatus and circuits	
	∟ UEENEEG109A Develop and connect electrical control circuits	
	☐ UEENEEK142A Apply environmentally and sustainable energy procedures in the energy sector	
	∟ UETTDRIS67A Solve problems in energy supply network equipment	
UETTDREL16A	Working safely near live electrical apparatus	20
UEPOPS301	Conduct single energy source isolation procedures for permit to work	40
UEPOPS349	Operate local H.V. switchgear	40
UEPMNT369	Monitor climatic conditions for renewable electricity generation	40
UEPMNT370	Maintain and monitor wind farm civil assets	40
	☐ UEENEEK142A Apply environmental and sustainable procedures in the energy sector	
	∟ UEENEEE102A Fabricate, assemble and dismantle utilities industry components	

# Group C elective units

Weighting points

UEPMNT442 Maintain wind turbine generator electrical systems 60

L UEPMNT371 Maintain large scale wind turbine generators 60

→ UEPMNT371 Maintain large scale wind turbine generators

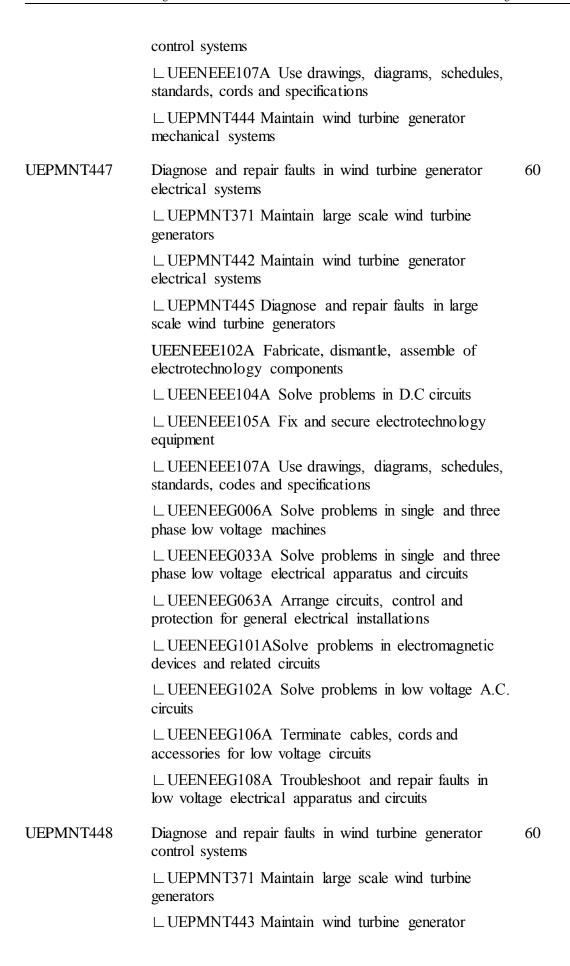
Approved Page 17 of 23

	DEENEEG006A Solve problems in single and three phase low voltage machines	
	∟UEENEEE102A Fabricate, dismantle, assemble of electrotechnology components	
	∟UEENEEE104A Solve problems in D.C circuits	
	∟UEENEEE105A Fix and secure electrotechnology equipment	
	∟ UEENEEG101ASolve problems in electromagnetic devices and related circuits	
	∟UEENEEG102A Solve problems in low voltage A.C. circuit	
	∟UEENEEG106A Terminate cables, cords and accessories for low voltage circuits	
UEPMNT443	Maintain wind turbine generator control systems	60
	∟UEPMNT371 Maintain large scale wind turbine generators	
UEPMNT444	Maintain wind turbine generator mechanical systems	60
	∟UEPMNT371 Maintain large scale wind turbine generators	
UEPMNT445	Diagnose and repair faults in large scale wind turbine generators	60
	∟UEPMNT371 Maintain large scale wind turbines generators	
	∟UEENEEG108A Troubleshoot and repair faults in low voltage electrical apparatus and circuits	
	∟UEENEEE102A Fabricate, dismantle, assemble of utilities industry components	
	∟UEENEEE104A Solve problems in D.C. circuits	
	∟UEENEEE105A Fix and secure electrotechnology equipment	
	□ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications	
	∟UEENEEG006A Solve problems in single and three phase low voltage machines	
	LUEENEEG033A Solve problems in single and three phase low voltage electrical apparatus and circuits	

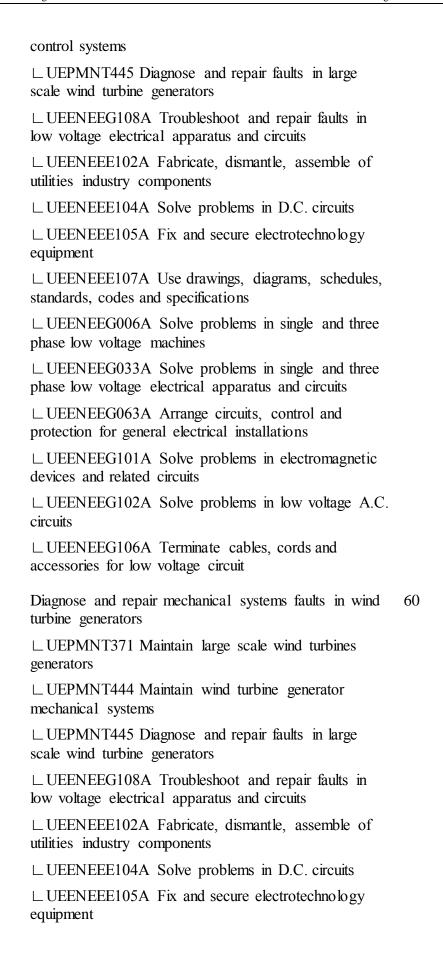
Approved Page 18 of 23

	☐ UEENEEG063A Arrange circuits, control and protection for general electrical installations	
	LUEENEEG101ASolve problems in electromagnetic devices and related circuits	
	∟UEENEEG102A Solve problems in low voltage A.C. circuits	
	∟ UEENEEG106A Terminate cables, cords and accessories for low voltage circuits	
UEPMNT446	Coordinate maintenance on a wind farm	60
	∟ UEPMNT445 Diagnose and repair faults in large scale wind turbine generators	
	∟ UEPMNT448 Diagnose and repair faults in wind turbine generator control systems	
	∟ UEPMNT449 Diagnose and repair faults in wind turbine generator mechanical systems	
	∟UEPMNT371 Maintain large scale wind turbines generators	
	∟ UEENEEG108A Troubleshoot and repair faults in low voltage electrical apparatus and circuits	
	∟UEENEEE102A Fabricate, dismantle, assemble of utilities industry components	
	∟ UEENEEE104A Solve problems in D.C. circuits	
	∟ UEENEEE105A Fix and secure electrotechnology equipment	
	∟ UEENEEG107 Use drawings, diagrams, schedules, standards, cords and specifications	
	∟ UEENEEG006A Solve problems in single and three phase low voltage machines	
	☐ UEENEEG033A Solve problems in single and three phase low voltage electrical apparatus and circuits	
	☐ UEENEEG063A Arrange circuits, control and protection for general electrical installations	
	∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits	
	∟UEENEEG102A Solve problems in low voltage A.C. circuits	
	∟ UEENEEG106A Terminate cables, cords and accessories for low voltage circuits	
	LIFPMNT443 Maintain wind turbine generator	

Approved Page 19 of 23



Approved Page 20 of 23



Approved Page 21 of 23

UEPMNT449

	□ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications	
	☐ UEENEEG006A Solve problems in single and three phase low voltage machines	
	☐ UEENEEG033A Solve problems in single and three phase low voltage electrical apparatus and circuits	
	☐ UEENEEG063A Arrange circuits, control and protection for general electrical installations	
	☐ UEENEEG101A Solve problems in electromagnetic devices and related circuits	
	∟UEENEEG102A Solve problems in low voltage A.C. circuits	
	∟ UEENEEG106A Terminate cables, cords and accessories for low voltage circuits	
UEPMNT450	Test and commission wind turbine generators	60
	∟UEPMNT371 Maintain large scale wind turbine generators	
	☐ UEPMNT444 Maintain wind turbine generator mechanical systems	
	∟ UEPMNT443 Maintain wind turbine generator control systems	
	∟ UEPMNT448 Diagnose and repair faults in wind turbine generator control systems	
	∟ UEPMNT449 Diagnose and repair mechanical systems faults in wind turbine generators	
	∟ UEPMNT445 Diagnose and repair faults in large scale wind turbine generators	
	∟ UEENEEG108A Troubleshoot and repair faults in low voltage electrical apparatus and circuits	
	∟ UEENEEE102A Fabricate, dismantle, assemble of utilities industry components	
	∟ UEENEEE104A Solve problems in D.C. circuits	
	∟ UEENEEE105A Fix and secure electrotechnology equipment	
	∟UEENEEG033A Solve problems in single and three	

Approved Page 22 of 23

	phase low voltage electrical apparatus and circuits	
	☐ UEENEEG063A Arrange circuits, control and protection for general electrical installations	
	∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits	
	∟ UEENEEG102A Solve problems in low voltage A.C. circuits	
	∟ UEENEEG106A Terminate cables, cords and accessories for low voltage circuits	
UEPOPS402	Conduct multiple energy source isolation procedures for permit to work	40
	∟ UEPOPS301 Conduct single energy source isolation procedures for permit to work.	
UEPOPS424	Coordinate local H.V. networks	30
UEPOPS428	Develop H.V. switching programs	20
UEPOPS456	Perform switching to a switching program	30

# **Qualification Mapping Information**

This qualification replaces and is equivalent to UEP40612 Certificate IV in Large Scale Wind Generation - Electrical

#### Links

Companion Volume implementation guides are found in VETNet - https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=1715b9fa-e7bd-441c-bb8d-cf22c 9c825a8

Approved Page 23 of 23