Australian Government

UEP40418 Certificate IV in ESI Generation Maintenance (Fabrication)

Release 2

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Modification History

Release 2. This is the second release of this qualification in the Electricity Supply Industry - Generation Sector Training Package. The following modification has been made:

- UEPMNT339 Perform sheet metal work and UEPMNT424 Monitor efficiency of thermal steam cycle power plant deleted due to zero enrolment.

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 complete power generation work functions in the electrical supply industry. Functions can include installation, fabrication, repair and maintenance of industrial pressure vessels and associated pipe work, coded welding, welding supervision, general fabrication and the observation of safe working practices. It also includes the supervision of others and the coordination of work activities.

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 760 core weighting points, plus 520 elective weighting points from the general elective units listed below.

Choose a total of 520 weighting point from the general elective units list below of which between 0 and 220 weighting points can be taken from Group A. A total of 410 weighting points can be selected from Group B. Between 120 and 520 weighting points may be taken from Group C, you may select all your elective units from this group.

Up to 220 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 ∟.

Core units		**Weighting points**
MEM05007C	Perform manual heating and thermal cutting	20
MEM05012C	Perform routine manual metal arc welding	20
MEM05015D	Weld using manual metal arc welding process ∟MEM05012C Perform routine manual metal arc welding ∟MEM05051A Select welding processes ∟MEM05052A Apply safe welding practices ∟MEM12023A Perform engineering measurements ∟MEM18001C Use hand tools ∟MEM18002B Use power tools/hand held operations	40
MEM05016C	Perform advanced welding using manual metal arc welding process ∟MEM05007C Perform manual heating and thermal cutting ∟MEM05012C Perform routine manual metal arc welding ∟MEM05015D Weld using manual metal arc welding process ∟MEM05051A Select welding processes ∟MEM05052A Apply safe welding practices ∟MEM09002B Interpret technical drawing ∟MEM12023A Perform engineering measurements ∟MEM18001C Use hand tools ∟MEM18002B Use power tools/hand held operation	40
MEM05017D	Weld using gas metal arc welding process ∟MEM05050B Perform routine gas metal arc welding ∟MEM05051A Select welding processes ∟MEM05052A Apply safe welding practices ∟MEM12023A Perform engineering measurements	40

	∟MEM18001C Use hand tools	
	∟MEM18002B Use power tools/hand held operations	
MEM05018C	Perform advanced welding using gas metal arc welding process	40
	∟MEM05007C Perform manual heating and thermal cutting	
	∟MEM05017D Weld using gas metal arc welding process	
	∟MEM05050B Perform routine gas metal arc welding	
	∟MEM05051A Select welding processes	
	∟MEM05052A Apply safe welding practices	
	∟MEM09002B Interpret technical drawing	
	∟MEM12023A Perform engineering measurements	
	∟MEM18001C Use hand tools	
	∟MEM18002B Use power tools/hand held operations	
MEM05024B	Perform welding supervision	120
	∟MEM05026C Apply welding principles	
MEM05026C	Apply welding principles	40
MEM05050B	Perform routine gas metal arc welding	20
MEM05051A	Select welding processes	20
MEM05052A	Apply safe welding practices	40
MEM09002B	Interpret technical drawing	40
MEM12023A	Perform engineering measurements	50
MEM18001C	Use hand tools	20
MEM18002B	Use power tools/hand held operations	20
UEENEEE101A	Apply Occupational, Health and Safety regulations, codes and practices in the workplace	20
UEENEEE117A	Implement and monitor energy sector OHS policies and procedures	20

UEPMNT302	Install and maintain industrial pipe work ∟MEM18006C Repair and fit engineering components ∟MEM09002B Interpret technical drawing ∟MEM12023A Perform Engineering Measurements ∟MEM18001C Use hand tools ∟MEM18002B Use power tools/hand held operations ∟MEM18003C Use tools for precision work ∟MEM18055B Dismantle, replace and assemble engineering components	40
UEPOPS202	Apply quality systems to work	20
UEPOPS337	Maintain quality systems within the team ∟UEPOPS202 Apply quality systems to work	20
UEPOPS417	Monitor and implement environmental site plans and procedures	20
UEPOPS430	Control permit to work operations	20
UEPOPS439	Plan and organise work	30

Group A elective units		**Weighting points**
BSBCUS401	Coordinate implementation of customer service strategies	40
BSBINM401	Implement workplace information system	40
BSBINN301	Promote innovation in a team environment	40
BSBLED401	Develop teams and individuals	40
BSBMGT402	Implement operational plan	40
BSBMGT403	Implement continuous improvement	40
BSBLDR402	Lead effective workplace relationships	50
BSBLDR403	Lead team effectiveness	50
BSBWOR404	Develop work priorities	40

CPCCCM2007B	Use explosive power tools ∟ CPCCOHS2001A Apply OHS requirements, policies and procedures in the construction industry	15
CPCCLDG3001A	Licence to perform dogging	30
CPCCLRG3001A	Licence to perform rigging basic level ∟ CPCCLDG3001A Licence to perform dogging	40
CPCCLRG3002A	Licence to perform rigging intermediate level ∟ CPCCLRG3001A Licence to perform rigging basic level	40
CPCCLSF2001A	Licence to erect, alter and dismantle scaffolding basic level	40
RIIHAN309E	Conduct telescopic materials handler operations	80
TAEDEL301	Provide work skill instruction	40
TLILIC0003	Licence to operate a forklift truck	40
TLILIC0002	Licence to operate a vehicle loading crane (capacity 10 metre tonnes and above)	40
TLILIC0005	Licence to operate a boom type elevating work platform (boom length 11 metres or more)	30

Group B elective units		**Weighting points**
UEPOPS338	Facilitate workplace communication	20
UEPMNT340	Fabricate metal structures and components ∟ MEM18006C Repair and fit engineering components ∟ MEM09002B Interpret technical drawing ∟ MEM12023A Perform engineering measurements ∟ MEM18001C Use hand tools ∟ MEM18002B Use power tools/hand held operations ∟ MEM18003C Use tools for precision work ∟ MEM18055B Dismantle, replace and assemble engineering components	40

MEM05004C	Perform routine oxy acetylene welding	20
MEM05005B	Carry out mechanical cutting	20
	∟ MEM12023A Perform engineering measurements	
	∟ MEM18001C Use hand tools	
MEM05011D	Assemble fabricated components	80
	∟ MEM05005B Carry out mechanical cutting	
	∟ MEM05007C Perform manual heating and thermal cutting	
	∟ MEM05012C Perform routine manual metal arc welding	
	∟ MEM05015D Weld using manual metal arc welding process	
	∟ MEM05051A Select welding processes	
	∟ MEM05052A Apply safe welding practices	
	∟ MEM05019D Weld using gas tungsten arc welding process	
	∟ MEM05049B Perform routine gas tungsten arc welding	
	∟ MEM05004C Perform routine oxy acetylene welding	
	∟ MEM05022C Perform advanced welding using oxy acetylene welding process	
	∟ MEM05017D Weld using gas metal arc welding process	
	∟ MEM05050B Perform routine gas metal arc welding	
	∟ MEM09002B Interpret technical drawing	
	∟ MEM12023A Perform engineering measurements	
	∟ MEM18001C Use hand tools	
	∟ MEM18002B Use power tools/hand held operations	
MEM05019D	Weld using gas tungsten arc welding process	40
	∟ MEM05049B Perform routine gas tungsten arc welding	
	∟ MEM05051A Select welding processes	
	∟ MEM05052A Apply safe welding practices	
	∟ MEM12023A Perform engineering measurements	

	∟ MEM18001C Use hand tools	
	∟ MEM18002B Use power tools/hand held operations	
MEM05036C	Repair/replace/modify fabrications	40
	∟ MEM05005B Carry out mechanical cutting	
	∟ MEM05007C Perform manual heating and thermal cutting	
	∟ MEM05011D Assemble fabricated components	
	∟ MEM05012C Perform routine manual metal arc welding	
	∟ MEM05015D Weld using manual metal arc welding process	
	∟ MEM05051A Select welding processes	
	∟ MEM05052A Apply safe welding practices	
	∟ MEM09002B Interpret technical drawing	
	∟ MEM12023A Perform engineering measurements	
	∟ MEM18001C Use hand tools	
	∟ MEM18002B Use power tools/hand held operations	
	∟ MEM05017D Weld using gas metal arc welding process	
	∟ MEM05050B Perform routine gas metal arc welding	
	∟ MEM05004C Perform routine oxy acetylene welding	
	∟ MEM05022C Perform advanced welding using oxy acetylene welding process	
	∟ MEM05051A Select welding processes	
	∟ MEM05019D Weld using gas tungsten arc welding process	
	∟ MEM05049B Perform routine gas tungsten arc welding	
MEM05049B	Perform routine gas tungsten arc welding	20
MEM12007D	Mark off/out structural fabrications and shapes	40
	∟ MEM12023A Perform engineering measurements	
MEM12024A	Perform computations	30
UEPOPS301	Conduct single energy source isolation procedures for permit to work	40

Group C elective units		Weighting points
UEPMNT421	Conduct technical inspection of process plant and equipment ∟UEPMNT351 Test and commission electrical equipment ∟UEENEEG108A Troubleshoot and repair faults in low voltage electrical apparatus and circuits ∟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, 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	60
UEPMNT422	Conduct performance testing on process plant and equipment ∟UEPMNT351 Test and commission electrical equipment ∟UEENEEG108A Troubleshoot and repair faults in low voltage electrical apparatus and circuits ∟UEENEEE102A Fabricate, assemble and dismantle utilities industry components ∟EENEEE104 Solve problems in D.C. circuits ∟UEENEEE105A Fix and secure electrotechnology equipment ∟UEENEEE107A Use drawings, diagrams, schedules,	60

	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 circuit	
UEPOPS402	Conduct multiple energy source isolation procedures for permit to work ∟UEPOPS301 Conduct single energy source isolation procedures for permit to work.	40
MEM05020C	Perform advanced welding using gas tungsten arc welding process ∟MEM05007C Perform manual heating and thermal cutting ∟MEM05019D Weld using gas tungsten arc welding process ∟MEM05049B Perform routine gas tungsten arc welding ∟MEM05051A Select welding processes ∟MEM05052A Apply safe welding practices ∟MEM09002B Interpret technical drawing ∟MEM12023A Perform engineering measurements ∟MEM18001C Use hand tools ∟MEM18002B Use power tools/hand held operation	40
MEM05022C	Perform advanced welding using oxy acetylene welding process ∟MEM05004C Perform routine oxy acetylene welding ∟MEM05007C Perform manual heating and thermal cutting ∟MEM05051A Select welding processes	60

	∟MEM05052A Apply safe welding practices	
	∟MEM09002B Interpret technical drawing	
	∟MEM18001C Use hand tools	
	∟EM18002B Use power tools/hand held operations	
MEM05043B	Perform welds to code standards using gas metal arc welding process	60
	∟MEM05007C Perform manual heating and thermal cutting	
	∟MEM05017D Weld using gas metal arc welding process	
	∟MEM05018C Perform advanced welding using gas metal arc welding process	
	∟MEM05026C Apply welding principles	
	∟MEM05050B Perform routine gas metal arc welding	
	∟MEM05051A Select welding processes	
	∟MEM05052A Apply safe welding practices	
	∟MEM09002B Interpret technical drawing	
	∟MEM12023A Perform engineering measurements	
	∟MEM18001C Use hand tools	
	∟MEM18002B Use power tools/hand held operations	
MEM05044B	Perform welds to code standards using gas tungsten arc welding process	60
	∟MEM05007C Perform manual heating and thermal cutting	
	∟MEM05019D Weld using gas tungsten arc welding process	
	∟MEM05020C Perform advanced welding using gas tungsten arc welding process	
	∟MEM05026C Apply welding principles	
	∟MEM05049B Perform routine gas tungsten arc welding	
	∟MEM05051A Select welding processes	
	∟MEM05052A Apply safe welding practices	
	∟MEM09002B Interpret technical drawing	
	∟MEM12023A Perform engineering measurements	
	∟MEM18001C Use hand tools	

	∟MEM18002B Use power tools/hand held operations	
MEM05045B	Perform pipe welds to code standards using manual metal arc welding process	60
	∟MEM05007C Perform manual heating and thermal cutting	
	∟MEM05012C Perform routine manual metal arc welding	
	∟MEM05015D Weld using manual metal arc welding process	
	∟MEM05016C Perform advanced welding using manual metal arc welding process	
	∟MEM05026C Apply welding principles	
	∟MEM05051A Select welding processes	
	∟MEM05052A Apply safe welding practices	
	∟MEM09002B Interpret technical drawing	
	∟MEM12023A Perform engineering measurements	
	∟MEM18001C Use hand tools	
	∟MEM18002B Use power tools/hand held operation	
MEM05046B	Perform welds to code standards using manual metal arc welding process	60
	∟MEM05007C Perform manual heating and thermal cutting	
	∟MEM05012C Perform routine manual metal arc welding	
	∟MEM05015D Weld using manual metal arc welding process	
	∟MEM05016C Perform advanced welding using manual metal arc welding process	
	∟MEM05026C Apply welding principles	
	∟MEM05051A Select welding processes	
	∟MEM05052A Apply safe welding practices	
	∟MEM09002B Interpret technical drawing	
	∟MEM12023A Perform engineering measurements	
	∟MEM18001C Use hand tools	
	∟MEM18002B Use power tools/hand held operations	

Qualification Mapping Information

This qualification replaces and is equivalent to UEP40412 Certificate IV in ESI Generation Maintenance (Fabrication)

Links

Companion Volume implementation guides are found in VETNet - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1715b9fa-e7bd-441c-bb8d-cf22c9c825a8