



Australian Government

UEP40122 Certificate IV in ESI Generation

Release 2

UEP40122 Certificate IV in ESI Generation

Modification History

Release 2. This is the second release of this qualification in the UEP Electricity Supply Industry - Generation Sector Training Package to update superseded imported units

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

Qualification Description

This qualification covers the skills and knowledge required to supervise power generation plant systems activities, remote operation of network equipment, isolation of power generation plant and equipment for work in the electrical supply industry.

It also includes working with civil plant and infrastructure and observing safe working practices.

Combined Specialist - Operations and Systems Operations

This specialisation covers the skills and knowledge required to perform operations and systems operations.

Specialist - Operations

This specialisation covers the skills and knowledge required to perform operations.

Specialist - Systems Operations

This specialisation covers the skills and knowledge required to perform systems operations.

Please note: RTO to insert on the testamur, the specialisation selected from the specialist elective unit group below.

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 of **27 units of competency** for the Combined Specialisation – Operations and Systems Operations

A total of **24 units of competency** for the Specialisation - Operations

A total of **22 units of competency** for the Specialisation - Systems Operations
comprising:

Combined Specialisation - Operations and Systems Operations

- 13 core units listed below; plus
- 5 specialisation units from Group A; plus
- 3 specialisation units from Group B; plus
- 4 elective units from Group C; plus
- 2 elective units may be selected from Group C or with appropriate contextualisation from a qualification in this or any endorsed Training Package, provided selected units contribute to the vocational outcome of the qualification.

Specialisation – Operations

- 13 core units listed below; plus
- 5 specialisation units from Group A; plus
- 4 elective units from Group C; plus
- 2 elective units may be selected from Group C or with appropriate contextualisation from a qualification in this or any endorsed Training Package, provided selected units contribute to the vocational outcome of the qualification.

Specialisation – Systems Operations

- 13 core units listed below; plus
- 3 specialisation units from Group B; plus
- 4 elective units from Group C; plus
- 2 elective units may be selected from Group C or with appropriate contextualisation from a qualification in this or any endorsed Training Package, provided selected units contribute to the vocational outcome of the qualification.

Where imported units are selected, care must be taken to ensure all prerequisite units specified are complied with. Prerequisites attached to any of the units must be obtained and are additional to the number of units required for the qualification.

Where a prerequisite unit is attached to a unit, it is identified by this symbol ⊥.

Core units

| | |
|-----------|--|
| UEECD0007 | Apply work health and safety regulations, codes and practices in the workplace |
| UEECD0024 | Implement and monitor energy sector WHS policies and procedures |
| UEPOPS001 | Analyse single protection device operation |
| UEPOPS003 | Apply quality systems to work |
| UEPOPS017 | Conduct single energy source isolation procedures for permit to work |
| UEPOPS031 | Coordinate response to critical incidents |
| | ⊥ UEPOPS130 Respond to a critical incident |
| UEPOPS032 | Coordinate team activities |

- UEPOPS043 Interpret and analyse multi-operation protection devices
 - └ UEPOPS001 Analyse single protection device operation
- UEPOPS047 Maintain quality systems within the team
 - └ UEPOPS003 Apply quality systems to work
- UEPOPS061 Monitor and implement environmental site plans and procedures
- UEPOPS107 Operate and monitor supervisory control and data acquisition systems
- UEPOPS127 Plan and organise work
- UEPOPS130 Respond to a critical incident

Group A: Specialist Electives - Operations

- UEPOPS011 Conduct multiple energy source isolation procedures for permit to work
 - └ UEPOPS017 Conduct single energy source isolation procedures for permit to work
- UEPOPS028 Coordinate permit to work system
 - └ UEPOPS011 Conduct multiple energy source isolation procedures for permit to work
- UEPOPS075 Operate and monitor a.c. electrical systems
- UEPOPS089 Operate and monitor d.c. electrical systems
- UEPOPS145 Undertake local systems operations

Group B: Specialist Electives - System Operations

- UEPOPS026 Coordinate network/system
- UEPOPS036 Develop H.V. switching programs
- UEPOPS126 Plan a scheduled outage

Group C: General Electives

- BSBHRM413 Support the learning and development of teams and individuals
- BSBINS402 Coordinate workplace information systems
- BSBLDR413 Lead effective workplace relationships
- BSBLDR414 Lead team effectiveness

- BSBOPS402 Coordinate business operational plans
- BSBOPS404 Implement customer service strategies
- BSBPEF402 Develop personal work priorities
- BSBST401 Promote innovation in team environments
- BSBST402 Implement continuous improvement
- MEM05004 Perform routine oxy fuel gas welding
 - └ MEM11011 Undertake manual handling
 - └ MEM13015 Work safely and effectively in manufacturing and engineering
 - └ MEM16006 Organise and communicate information
- MEM05007 Perform manual heating and thermal cutting
 - └ MEM09002 Interpret technical drawing
 - └ MEM11011 Undertake manual handling
 - └ MEM12023 Perform engineering measurements
 - └ MEM13015 Work safely and effectively in manufacturing and engineering
 - └ MEM16006 Organise and communicate information
- MEM05012 Perform routine manual metal arc welding
 - └ MEM11011 Undertake manual handling
 - └ MEM13015 Work safely and effectively in manufacturing and engineering
 - └ MEM16006 Organise and communicate information
- MEM09002 Interpret technical drawing
 - └ MEM12023 Perform engineering measurements
 - └ MEM12024 Perform computations
 - └ MEM13015 Work safely and effectively in manufacturing and engineering
 - └ MEM16006 Organise and communicate information
- MEM11011 Undertake manual handling
 - └ MEM13015 Work safely and effectively in manufacturing and engineering
 - └ MEM16006 Organise and communicate information
- MEM12023 Perform engineering measurements
 - └ MEM13015 Work safely and effectively in manufacturing and engineering
 - └ MEM16006 Organise and communicate information

- MEM12024 Perform computations
 - └ MEM13015 Work safely and effectively in manufacturing and engineering
 - └ MEM16006 Organise and communicate information
- MEM13015 Work safely and effectively in manufacturing and engineering
- MEM16006 Organise and communicate information
 - └ MEM13015 Work safely and effectively in manufacturing and engineering
- TAEDEL311 Provide work skill instruction
- UEECD0010 Compile and produce an energy sector detailed report
- UEECO0001 Estimate electrotechnology projects
- UEPOPL003 Licence to operate a reciprocating steam engine
- UEPOPL004 Licence to operate a steam turbine
- UEPOPS002 Apply environmental and sustainable energy procedures
- UEPOPS004 Carry out operational checks on in-service electrical plant
- UEPOPS006 Collect and analyse hydrological and meteorological data
 - └ UEPOPS122 Perform process plant inspections
- UEPOPS011 Conduct multiple energy source isolation procedures for permit to work
 - └ UEPOPS017 Conduct single energy source isolation procedures for permit to work.
- UEPOPS012 Conduct non-routine operational testing
- UEPOPS013 Conduct operational checks and carry out corrective action on in-service electrical plant
- UEPOPS014 Conduct operational checks on in-service mechanical plant
- UEPOPS018 Conduct water conveyance and control
- UEPOPS019 Control electrical energy production
- UEPOPS021 Control permit to work operations
- UEPOPS024 Coordinate first response team operation
- UEPOPS025 Coordinate local H.V. networks
- UEPOPS026 Coordinate network/system

- UEPOPS027 Coordinate operational strategies for power production
- UEPOPS028 Coordinate permit to work system
 - └ UEPOPS011 Conduct multiple energy source isolation procedures for permit to work
- UEPOPS029 Coordinate photovoltaic solar power plant operations
- UEPOPS033 Coordinate the use of contingency plans
 - └ UEPOPS040 Facilitate the use of contingency plans for power generation facilities
- UEPOPS034 Coordinate wind farm operations
- UEPOPS035 Coordinate workplace communication
 - └ UEPOPS041 Facilitate workplace communication
- UEPOPS036 Develop H.V. switching programs
- UEPOPS037 Ensure compliance with work health and safety policy and procedures
- UEPOPS040 Facilitate the use of contingency plans for power generation facilities
- UEPOPS041 Facilitate workplace communication
- UEPOPS042 Implement dam safety surveillance procedures
- UEPOPS057 Manage system restart
- UEPOPS059 Manage, operate and monitor a gas turbine unit
- UEPOPS060 Monitor and coordinate the operation of a combined cycle gas turbine unit
 - └ UEPOPS059 Manage, operate and monitor a gas turbine unit
 - └ UEPOPS073 Operate and monitor a steam turbine
 - └ UEPOPS095 Operate and monitor fuel firing plant - gas/oil
 - └ UEPOPS101 Operate and monitor HRSG hot gas control system
- UEPOPS062 Monitor and maintain civil assets
- UEPOPS063 Monitor and maintain wind farm civil assets
- UEPOPS064 Monitor climatic conditions for renewable energy production
- UEPOPS065 Monitor implementation of quality control for production and maintenance
 - └ UEPOPS047 Maintain quality systems within the team

- UEPOPS067 Monitor the implementation of under frequency load shedding
- UEPOPS068 Operate a hydro generator synchronous condenser pump unit
- UEPOPS070 Operate and monitor a boiler unit
- UEPOPS071 Operate and monitor a heat recovery steam generator unit
 - └ UEPOPS101 Operate and monitor HRSG hot gas control system
 - └ UEPOPS138 Start and run up gas turbine
 - └ UEPOPS141 Start up a heat recovery steam generator unit
- UEPOPS072 Operate and monitor a hydro turbine
- UEPOPS073 Operate and monitor a steam turbine
- UEPOPS075 Operate and monitor a.c.. electrical systems
- UEPOPS076 Operate and monitor air conditioning plant and ventilation systems
- UEPOPS077 Operate and monitor alkalinity reduction plant
- UEPOPS081 Operate and monitor auxiliary steam systems
- UEPOPS082 Operate and monitor boiler draught system
- UEPOPS083 Operate and monitor boiler steam/water cycle
- UEPOPS084 Operate and monitor brine concentrator plant
- UEPOPS085 Operate and monitor communications system
- UEPOPS086 Operate and monitor compressed air systems
- UEPOPS087 Operate and monitor compressed gas systems
- UEPOPS088 Operate and monitor condenser and auxiliary cooling systems
- UEPOPS089 Operate and monitor d.c.. electrical systems
- UEPOPS090 Operate and monitor dual fuel firing plant
- UEPOPS092 Operate and monitor fixed fire protection systems
- UEPOPS093 Operate and monitor flue gas (NO_x) mitigation systems
- UEPOPS094 Operate and monitor fuel firing plant coal
- UEPOPS095 Operate and monitor fuel firing plant -gas/oil

- UEPOPS096 Operate and monitor fuel supply
- UEPOPS098 Operate and monitor gas production plant
- UEPOPS099 Operate and monitor generator/alternator
- UEPOPS100 Operate and monitor heat exchangers and cooling systems
- UEPOPS101 Operate and monitor HRSG hot gas control system
- UEPOPS102 Operate and monitor hydro plant auxiliary systems
- UEPOPS103 Operate and monitor hydro unit control and protection systems
- UEPOPS104 Operate and monitor oil systems
- UEPOPS105 Operate and monitor reverse osmosis plant
- UEPOPS108 Operate and monitor system equipment
- UEPOPS109 Operate and monitor water quality monitoring systems
- UEPOPS110 Operate and monitor water systems condensate and feedwater
- UEPOPS111 Operate and monitor water treatment plant
- UEPOPS112 Operate bulk coal handling plant
- UEPOPS113 Operate fabric filter dust collection plant
- UEPOPS114 Operate H.V. condition changing apparatus
- UEPOPS115 Operate hydroelectric generating plant and auxiliary equipment
- UEPOPS116 Operate local H.V. switchgear
- UEPOPS117 Operate local L.V. switchgear
- UEPOPS118 Operate manual systems
 - └ UEPOPS145 Undertake local systems operations
- UEPOPS120 Undertake operational commissioning and decommissioning
- UEPOPS122 Perform process plant inspections
- UEPOPS123 Perform risk analysis of generation plant
- UEPOPS124 Perform switching to a switching program
- UEPOPS126 Plan a scheduled outage

- UEPOPS128 Produce maintenance plans for generation production plant
- UEPOPS131 Run up a steam turbine
- UEPOPS132 Schedule generation
- UEPOPS133 Shut down a boiler unit
- UEPOPS134 Shut down a gas turbine
- UEPOPS135 Shut down a heat recovery steam generator unit
 - └ UEPOPS101 Operate and monitor HRSG hot gas control system
 - └ UEPOPS134 Shut down a gas turbine
- UEPOPS136 Shut down a hydro turbine
- UEPOPS137 Shut down a steam turbine
- UEPOPS138 Start and run up gas turbine
- UEPOPS139 Start and run-up a hydro turbine
- UEPOPS140 Start up a boiler unit
- UEPOPS141 Start up a heat recovery steam generator unit
 - └ UEPOPS101 Operate and monitor HRSG hot gas control system
- UEPOPS144 Undertake dam safety surveillance
- UEPOPS145 Undertake local systems operations

Qualification Mapping Information

This qualification replaces and is not equivalent to UEP40218 Certificate IV in ESI Generation - Operations, and UEP40118 Certificate IV in ESI Generation - Systems Operations

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1715b9fa-e7bd-441c-bb8d-cf22c9c825a8>