Australian Government

UEP40118 Certificate IV in ESI Generation - Systems Operations

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:

• UEPOPS334 Operate and monitor a wind generator and UEPOPS210 Conduct first response within a workplace team 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 perform systems operations functions in the electrical supply industry. Functions may include the remote operation of network equipment, the isolating of power generation plant and equipment for work, estimating costs and observing safe working practices. It may also include 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 500 core weighting points, plus 780 general elective weighting points from the general elective units listed below.

Choose a total of 780 weighting points from the general elective units list below of which between 0 and 220 weighting points can be taken from Group A. A total of 700 weighting points may be taken from Group B, at least 100 weighting points must be selected from this group. Between 100 and 780 weighting points may be selected 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.

Australian Industry Standards

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
UEENEEE117A	Implement and monitor energy sector OHS policies and procedures	20
UEENEEE101A	Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
UEPOPS202	Apply quality systems to work	20
UEPOPS301	Conduct single energy source isolation procedures for permit to work	40
UEPOPS337	Maintain quality systems within the team ∟ UEPOPS202 Apply quality systems to work	20
UEPOPS342	Analyse single protection device operation	60
UEPOPS347	Operate and monitor supervisory, control and data acquisition systems	40
UEPOPS369	Respond to a critical incident	40
UEPOPS417	Monitor and implement environmental site plans and procedures	20
UEPOPS420	Coordinate network/system	40
UEPOPS423	Plan a scheduled outage	40
UEPOPS426	Interpret and analyse multi-operation protection devices ∟ UEPOPS342 Analyse single protection device operation	40
UEPOPS428	Develop H.V. switching programs	40
UEPOPS439	Plan and organise work	30
UEPOPS440	Coordinate team activities	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
MEM05004C	Perform routine oxy acetylene welding	20
MEM05007C	Perform manual heating and thermal cutting	20
MEM05012C	Perform routine manual metal arc welding	20
TAEDEL301	Provide work skill instruction	40
UEENEEC005B	Estimate electrotechnology projects	40
UEENEEE124A	Compile and produce an energy sector detailed report	60

Group B elective units		Weighting points
UEPOPS203	Operate and monitor communications system	20
UEPOPS252	Undertake local systems operations	30
UEPOPS309	Operate and monitor air conditioning plant and ventilation systems	20
UEPOPS310	Operate bulk coal handling plant	40

UEPOPS311	Operate fabric filter dust collection plant	20
UEPOPS312	Operate and monitor fuel supply	20
UEPOPS313	Operate and monitor boiler draught system	40
UEPOPS314	Operate and monitor fuel firing plant (gas or oil)	40
UEPOPS315	Operate and monitor fuel firing plant (coal)	40
UEPOPS316	Operate and monitor boiler steam/water cycle	40
UEPOPS317	Operate and monitor fixed fire protection systems	30
UEPOPS318	Operate and monitor compressed gas systems	30
UEPOPS319	Operate and monitor gas production plant	30
UEPOPS320	Operate and monitor compressed air systems	30
UEPOPS321	Operate and monitor water treatment plant	30
UEPOPS322	Operate and monitor alkalinity reduction plant	30
UEPOPS323	Operate and monitor reverse osmosis plant	30
UEPOPS324	Operate and monitor brine concentrator plant	30
UEPOPS325	Operate and monitor water quality monitoring systems	30
UEPOPS326	Operate and monitor oil systems	30
UEPOPS327	Monitor and maintain civil assets	30
UEPOPS328	Undertake dam safety surveillance	30
UEPOPS329	Operate and monitor auxiliary steam systems	40
UEPOPS330	Operate and monitor heat exchangers and cooling systems	40
UEPOPS331	Operate and monitor water systems (condensate and feedwater)	40

UEPOPS332	Operate and monitor condenser and auxiliary cooling systems	40
UEPOPS333	Operate and monitor HRSG hot gas control system	40
UEPOPS335	Operate a hydro generator synchronous condenser pump unit	60
UEPOPS336	Manage, operate and monitor a gas turbine unit	60
UEPOPS338	Facilitate workplace communication	20
UEPOPS339	Operate and monitor a boiler unit	60
UEPOPS340	Operate and monitor a steam turbine	60
UEPOPS343	Operate hydroelectric generating plant and auxiliary equipment	60
UEPOPS344	Conduct water conveyance and control	30
UEPOPS345	Implement dam safety surveillance procedures	30
UEPOPS346	Conduct non-routine operational testing	60
UEPOPS349	Operate local H.V. switchgear	40
UEPOPS351	Operate H.V. condition changing apparatus	60
UEPOPS352	Conduct operational checks on in-service mechanical plant	40
UEPOPS354	Operate and monitor dual fuel firing plant	80
UEPOPS355	Monitor the implementation of under frequency load shedding	60
UEPOPS356	Apply environmental and sustainable energy procedures	20
UEPOPS357	Operate local L.V. switchgear	40
UEPOPS358	Monitor and maintain wind farm civil assets	40
UEPOPS359	Monitor climatic conditions for renewable energy production	40

UEPOPS360	Operate and monitor a hydro turbine	60
UEPOPS361	Operate and monitor hydro plant auxiliary systems	60
UEPOPS362	Operate and monitor generator/alternator	60
UEPOPS364	Ensure compliance with Work, Health and Safety policy and procedures	20
UEPOPS368	Operate manual systems ∟ UEPOPS252 Undertake local systems operations	30
UEPOPS370	Facilitate the use of contingency plans for power generation facilities	60
UEPOPS371	Carry out operational checks on in-service electrical plant	40

Group C elective units		Weighting points
UEPOPS402	Conduct multiple energy source isolation procedures for permit to work ∟ UEPOPS301 Conduct single energy source isolation procedures for permit to work.	40
UEPOPS403	Coordinate permit to work system ∟ UEPOPS402 Conduct multiple energy source isolation procedures for permit to work	40
UEPOPS404	Coordinate first response team operation	20
UEPOPS405	Operate and monitor A.C. electrical systems	30
UEPOPS406	Operate and monitor D.C. electrical systems	30
UEPOPS407	Start and run up gas turbine	60
UEPOPS408	Shut down a gas turbine	60
UEPOPS409	Start up a boiler unit	60
UEPOPS410	Shut down a boiler unit	60
UEPOPS411	Run up a steam turbine	60

Australian Industry Standards

UEPOPS412	Undertake commissioning and decommissioning	30
UEPOPS413	Coordinate operational strategies for power production	20
UEPOPS414	Perform risk analysis of generation plant	20
UEPOPS416	Monitor implementation of quality control for production and maintenance	20
	∟ UEPOPS337 Maintain quality systems within the team	
UEPOPS419	Shut down a steam turbine	60
UEPOPS422	Schedule generation	40
UEPOPS424	Coordinate local H.V. networks	40
UEPOPS425	Produce maintenance plans for generation production plant	40
UEPOPS430	Control permit to work operations	40
UEPOPS431	Collect and analyse hydrological and meteorological data	20
	∟ UEPOPS209 Perform process plant inspections	
UEPOPS432	Start up a heat recovery steam generator unit	30
	∟ UEPOPS333 Operate and monitor HRSG hot gas control system	
UEPOPS433	Operate and monitor a heat recovery steam generator unit	20
	∟ UEPOPS333 Operate and monitor HRSG hot gas control system	
	∟ UEPOPS407 Start and run up gas turbine	
	∟ UEPOPS432 Start up a heat recovery steam generator unit	
UEPOPS434	Shut down a heat recovery steam generator unit	30
	∟ UEPOPS333 Operate and monitor HRSG hot gas control system	
	∟ UEPOPS408 Shut down a gas turbine	

UEPOPS435	Operate and monitor flue gas (NOx) mitigation systems	30
UEPOPS437	Manage system restart	40
UEPOPS441	Operate and monitor system equipment	30
UEPOPS442	Monitor and coordinate the operation of a combined cycle gas turbine unit	60
	∟ UEPOPS314 Operate and monitor fuel firing plant (gas or oil)	
	∟ UEPOPS333 Operate and monitor HRSG hot gas control system	
	∟ UEPOPS336 Operate and monitor gas turbine unit	
	∟ UEPOPS340 Operate and monitor a steam turbine	
UEPOPS443	Coordinate wind farm operations	40
UEPOPS444	Start and run-up a hydro turbine	60
UEPOPS445	Shut down a hydro turbine	60
UEPOPS446	Operate and monitor hydro unit control and protection systems	80
UEPOPS447	Coordinate photovoltaic solar power plant operations	60
UEPOPS450	Coordinate workplace communication	40
	∟ UEPOPS338 Facilitate workplace communication	
UEPOPS451	Coordinate the use of contingency plans	40
	∟ UEPOPS370 Facilitate the use of contingency plans for power generation facilities	
UEPOPS452	Conduct operational checks and carry out corrective action on in-service electrical plant	40
UEPOPS454	Coordinate response to critical incidents	30
	∟ UEPOPS369 Respond to a critical incident	
UEPOPS456	Perform switching to a switching program	30
UEPOPS457	Control electrical energy production	40

Qualification Mapping Information

This qualification replaces and is equivalent to UEP40112 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