

# **UEP30122** Certificate III in ESI Generation

Release 1

#### UEP30122 Certificate III in ESI Generation

## **Modification History**

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 operate power generation plant systems, isolate power generation plant systems, and undertake routine maintenance on power generation plant and equipment in the electrical supply industry (ESI).

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

A total of 28 units of competency for the Specialisation - Operations

A total of **28 units of competency** for the Specialisation - Systems Operations comprising:

Combined Specialisation - Operations and Systems Operations

• 9 core units listed below; plus

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- 3 specialisation units from Group A; plus
- 3 specialisation units from Group B; plus
- 12 elective units from Group C; plus
- 4 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**

- 9 core units listed below; plus
- 3 specialisation units from Group A; plus
- 12 elective units from Group C; plus
- 4 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**

- 9 core units listed below; plus
- 3 specialisation units from Group B; plus
- 12 elective units from Group C; plus
- 4 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  $\bot$ .

#### Core units

| UEECD0007 | Apply work health and safety regulations, codes and practices in the workplace |
|-----------|--|
| UEPOPS002 | Apply environmental and sustainable energy procedures                          |
| UEPOPS003 | Apply quality systems to work  |
| UEPOPS017 | Conduct single energy source isolation procedures for permit to work           |
| UEPOPS037 | Ensure compliance with work health and safety policy and procedures            |
| UEPOPS044 | Liaise with stakeholders   |
| UEPOPS045 | Maintain and utilise records   |
| UEPOPS122 | Perform process plant inspections  |

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UEPOPS145 Undertake local systems operations

#### **Group A: Specialist Electives - Operations**

UEPOPS004 Carry out operational checks on in-service electrical plant

UEPOPS014 Conduct operational checks on in-service mechanical plant

UEPOPS130 Respond to a critical incident

#### **Group B: Specialist Electives - Systems Operations**

UEPOPS001 Analyse single protection device operation

UEPOPS092 Operate and monitor fixed fire protection systems

UEPOPS107 Operate and monitor supervisory control and data acquisition systems

#### **Group C: General Electives**

BSBHRM413 Support the learning and development of teams and individuals

BSBLDR301 Support effective workplace relationships

BSBOPS301 Maintain business resources

BSBOPS402 Coordinate business operational plans

BSBPEF301 Organise personal work priorities

BSBSTR301 Contribute to continuous improvement

BSBSTR401 Promote innovation in team environments

BSBTWK201 Work effectively with others

CPCCCM200 Use explosive power tools

∟ CPCCWHS2001 Apply WHS requirements, policies and procedures in the

construction industry

CPCCLDG30 Licence to perform dogging

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| CPCCLHS30<br>01 | Licence to operate a personnel and materials hoist  |
|-----------------|---|
| CPCCLHS30<br>02 | Licence to operate a materials hoist  |
| CPCCLRG30<br>01 | Licence to perform rigging basic level  ∟ CPCCLDG3001 Licence to perform dogging  |
| CPCCLRG30<br>02 | Licence to perform rigging intermediate level  LCPCCLRG3001 Licence to perform rigging basic level  |
| CPCCLRG40<br>01 | Licence to perform rigging advanced level  ∟ CPCCLRG3002 Licence to perform rigging intermediate level  |
| CPCCLSF200      | Licence to erect, alter and dismantle scaffolding basic level   |
| CPCCLSF300      | Licence to erect, alter and dismantle scaffolding intermediate level   ∟ CPCCLSF2001 Licence to erect, alter and dismantle scaffolding basic level  |
| CPCCLSF400      | Licence to erect, alter and dismantle scaffolding advanced level<br>∟ CPCCLSF3001 Licence to erect, alter and dismantle scaffolding intermediate level  |
| CPCCWHS20<br>01 | Apply WHS requirements, policies and procedures in the construction industry  |
| 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  |

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|            | ∟ 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   |
| NWPCAD008  | Monitor and control dam operations  |
| NWPCAD009  | Monitor and implement dam maintenance   |
| NWPCAD012  | Route floods through storages   |
| RIIHAN309F | Conduct telescopic materials handler operations   |
| RIIMPO304E | Conduct wheel loader operations   |
| RIIMPO308F | Conduct tracked dozer operations  |
| RIIMPO309F | Conduct wheeled dozer operations  |
| RIIMPO318F | Conduct civil construction skid steer loader operations   |

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| RIIMPO319E | Conduct backhoe/loader operations   |
|------------|---|
| TLILIC0003 | Licence to operate a forklift truck   |
| UEECD0019  | Fabricate, assemble and dismantle utilities industry components  L UEECD0007 Apply work health and safety regulations, codes and practices in the workplace |
| UEPOPS001  | Analyse single protection device operation  |
| UEPOPS004  | Carry out operational checks on in-service electrical plant   |
| UEPOPS005  | Clean plant and equipment   |
| UEPOPS009  | Conduct minor electrical maintenance  |
| UEPOPS010  | Conduct minor mechanical maintenance  |
| UEPOPS012  | Conduct non-routine operational testing   |
| UEPOPS014  | Conduct operational checks on in-service mechanical plant   |
| UEPOPS018  | Conduct water conveyance and control  |
| UEPOPS040  | Facilitate the use of contingency plans for power generation facilities   |
| UEPOPS041  | Facilitate workplace communication  |
| UEPOPS042  | Implement dam safety surveillance procedures  |
| UEPOPS047  | Maintain quality systems within the team  ∠UEPOPS003 Apply quality systems to work  |
| UEPOPS059  | Manage, operate and monitor a gas turbine unit  |
| UEPOPS062  | Monitor and maintain civil assets   |
| UEPOPS063  | Monitor and maintain wind farm civil assets   |
| UEPOPS064  | Monitor climatic conditions for renewable energy production   |
| UEPOPS067  | Monitor the implementation of under frequency load shedding   |

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| UEPOPS068 | Operate a hydro generator synchronous condenser pump unit          |  |
|-----------|--|--|
| UEPOPS070 | Operate and monitor a boiler unit                                  |  |
| UEPOPS072 | Operate and monitor a hydro turbine                                |  |
| UEPOPS073 | Operate and monitor a steam turbine                                |  |
| 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        |  |
| UEPOPS090 | Operate and monitor dual fuel firing plant                         |  |
| UEPOPS092 | Operate and monitor fixed fire protection 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            |  |

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| UEPOPS101 | Operate and monitor HRSG hot gas control system                      |
|-----------|--|
| UEPOPS102 | Operate and monitor hydro plant auxiliary systems                    |
| UEPOPS104 | Operate and monitor oil systems                                      |
| UEPOPS105 | Operate and monitor reverse osmosis plant                            |
| UEPOPS107 | Operate and monitor supervisory control and data acquisition systems |
| 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                       |
| UEPOPS121 | Perform plant lubrication  |
| UEPOPS130 | Respond to a critical incident                                       |
| UEPOPS144 | Undertake dam safety surveillance                                    |

# Qualification Mapping Information

This qualification replaces and is not equivalent to UEP30218 Certificate III in ESI Generation - Operations, and UEP30118 Certificate III in ESI Generation - Systems Operations

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## Links

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

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