

UET50221 Diploma of ESI - Power Systems

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Modification History

Release 2. Updated superseded elective units.

Release 1. This is the first release of this qualification in the UET Transmission, Distribution and Rail Sector Training Package Release 2.0.

Qualification Description

This qualification provides the skills and knowledge to work in the electricity supply industry (ESI) as a High Voltage (HV) Substation Project Manager or a Senior Systems Operator (ESI) or a Power Systems Technical Officer.

This qualification covers overseeing the construction of electrical substations and related projects within the ESI. It also includes managing personnel, the business aspects of projects and giving specialist advice to deal with day-to-day issues and problems.

The skills and knowledge described within the units in this qualification may require a licence or permit to practice in the workplace.

Additional and/or other conditions may also apply under state and territory legislative and regulatory licensing requirements which must be confirmed prior to commencing the qualification.

Entry Requirements

There are no entry requirements for this qualification

Packaging Rules

A total of **1600 weighting points** comprising:

700 core weighting points listed below; plus

900 general elective weighting points from the general elective units listed below.

Choose a total of 900 **weighting points** elective units from the list below, of which between 0 and 270 **weighting points** can be taken from Group A; between 0 and 400 **weighting points** can be taken from Group B; between 0 and 200 **weighting points** can be taken from Group C and between 140 and 900 **weighting points** taken from Group D. You may select all your electives from this group.

Up to 270 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 selected units contribute to the vocational outcome of the qualification. Previously assigned weighting points are listed in UET Transmission, Distribution and Rail Sector Training Package Companion Volume Implementation Guide, if not listed

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weighting points will be 10 points.

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

Core units		Weighting Points
UEENEED104A	Use engineering applications software on personal computers	40
	☐ UEENEEE101A Apply Occupational Health Safety regulations, codes and practices in the workplace	
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	
UEENEEE107A	Use drawings, diagrams, schedules, standards, codes and specifications	40
	☐ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace	
UEENEEE124A	Compile and produce an energy sector detailed report	60
UEENEEE125A	Provide engineering solutions for problems in complex multiple path circuits	60
	☐ UEENEEE126A Provide solutions to basic engineering computational problems	
UEENEEE126A	Provide solutions to basic engineering computational problems	60
	∟ UEENEEE029B Solve electrotechnical problems	
	or	
	∟ UEENEEG102A Solve problems in low voltage a.c. circuits	
	or	
	∟ UEENEEH014B Troubleshoot frequency dependent circuits	

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UEENEEG101A	Solve problems in electromagnetic devices and related circuits	60
	☐ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace	
	∟UEENEEE104A Solve problems in d.c. circuits	
UEENEEG102A	Solve problems in low voltage a.c. circuits	80
	☐ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace	
	∟UEENEEE104A Solve problems in d.c. circuits	
	☐ UEENEEG101A Solve problems in electromagnetic devices and related circuits	
UEENEEG149A	Provide engineering solutions to problems in complex polyphase power circuits	60
	☐ UEENEEE125A Provide engineering solutions for problems in complex multiple path circuits	
	and	
	∟ UEENEEG102A Solve problems in low voltage a.c. circuits	
UETDREL001	Apply environmental requirements	20
UETDREL005	Work safely in the vicinity of live electrical apparatus	20
	∟ UEECD0007 Apply work health and safety regulations, codes and practices in the workplace	
UETDRIS005	Implement & monitor power system environmental & sustainable energy management policies & procedures	30
	Electrotechnology Pathway Unit Group	
	☐ UEENEEK142A Apply environmentally and sustainable procedures in the energy sector	
	ESI - TDR Pathway Unit Group	
	∟ UETDREL001 Apply environmental requirements	
UETDRIS006	Implement and monitor the power system organisational WHS/OHS policies, procedures and programs	30
	☐ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace	
	∟ UETDREL005 Work safely in the vicinity of live electrical apparatus	

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Group A: Imported and common elective units		Weighting Points
BSBFIN501	Manage budgets and financial plans	70
BSBHRM523	Coordinate the learning and development of teams and individuals	60
BSBINS501	Implement information and knowledge management systems	50
BSBLDR522	Manage people performance	70
BSBOPS502	Manage business operational plans	60
BSBOPS505	Manage organisational customer service	40
BSBPEF501	Manage personal and professional development	60
BSBSTR501	Establish innovative work environments	50
BSBSTR502	Facilitate continuous improvement	60
BSBSUS511	Develop workplace policies and procedures for sustainability	50
BSBTWK502	Manage team effectiveness	60
Group B: Qualification elective units		Weighting Points
UEENEEG006A	Solve problems in single and three phase low voltage machines	80
	☐ UEENEEE101A Apply 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	
	∟ UEENEEG101A Solve 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	

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UEENEEH102A	Repairs 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	
UEENEEH112A	Troubleshoot digital sub-systems	80
	☐ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace	
	☐ UEENEEH102A Repair basic electronic apparatus faults by replacement of components	
UEENEEH139A	Troubleshoot basic amplifier circuits	40
	☐ UEENEEH102A Repair basic electronic apparatus faults by replacement of components	
	AND	
	☐ UEENEEH114A Troubleshoot resonance circuits in an electronic apparatus	
	OR	
	∟ UEENEEG102A Solve problems in low voltage a.c. circuits	
UETTDREL15	Respond to power systems technical enquiries and requests	40
UETTDRIS67	Solve problems in energy supply network equipment	80
	Common Unit Group	
	☐ 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	
	∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits	
	∟ UEENEEG102A Solve problems in low voltage a.c.	

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circuits

∟ UEENEEG006A Solve problems in single and three phase low voltage machines

∟ UEENEEG106A Terminate cables, cords and accessories for low voltage circuits

UETTDRIS68

Solve problems in energy supply network protection equipment and systems

40

Common Unit Group

∟ 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

∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits

∟UEENEEG102A Solve problems in low voltage a.c. circuits

∟ UEENEEG006A Solve problems in single and three phase low voltage machines

∟ UEENEEG106A Terminate cables, cords and accessories for low voltage circuits

∟ UETTDRIS67 Solve problems in energy supply network equipment

Group C: Qualification elective units

Weighting Points

UEENEEE190A

Prepare engineering drawings using manual drafting and 60 CAD for electrotechnology/utilities applications

 □ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace

∟ UEENEED104A Use software for engineering applications

∟ UEENEEE102A Fabricate, dismantle, assemble of utilities industry components

□ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications

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UEENEEE191A	Prepare electrotechnology/utilities drawings using manual drafting and CAD equipment and software	60
	∟ UEENEED104A Use software for engineering applications	
	☐ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace	
	∟UEENEEE102A Fabricate, dismantle, assemble of utilities industry components	
	∟UEENEEE104A Solve problems in d.c. circuits	
	☐ UEENEEE190A Prepare engineering drawings using manual drafting and CAD for electrotechnology/utilities applications	
UEENEEE192A	Produce detailed electrotechnology /utilities drawings using computer aided design equipment and software	60
	∟UEENEED104A Use software for engineering applications	
	☐ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace	
	∟UEENEEE102A Fabricate, dismantle, assemble of utilities industry components	
	☐ UEENEEE104A Solve problems in d.c. circuits	
	□ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications	
	☐ UEENEEE190A Prepare engineering drawings using manual drafting and CAD for electrotechnology/utilities applications	
	☐ UEENEEE191A Prepare electrotechnology/utilities drawings using manual drafting and CAD equipment and software	
UEENEEI155A	Develop structured programs to control external devices	40
	☐ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace	
UETDRDS008	Draft and layout a power system distribution substation minor upgrade	60
	☐ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace	

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- LUEENEEE102A Fabricate, assemble and dismantle utilities industry components LUEENEEE104A Solve problems in d.c. circuits ∟ UEENEEE107A 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. circuits
- ∟ UETDREL001 Apply environmental requirements
- ∟UETDREL005 Work safely in the vicinity of live electrical apparatus
- ∟ UETDRIS005 Implement & monitor power system environmental & sustainable energy management policies & procedures
- ∟ UETDRIS006 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs

UETDRDS009

Draft and layout a power system overhead distribution extension

60

- LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace
- LUEENEE102A Fabricate, assemble and dismantle utilities industry components
- LUEENEEE104A Solve problems in d.c. circuits
- LUEENEEE107A 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. circuits
- LUETDREL001 Apply environmental requirements
- LUETDREL005 Work safely in the vicinity of live electrical apparatus
- ∟ UETDRIS005 Implement & monitor power system environmental & sustainable energy management policies & procedures
- ∟ UETDRIS006 Implement and monitor the power system organisational WHS/OHS policies, procedures

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and programs

UETDRDS010 Draft and layout a power system street lighting system 60 LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace LUEENEEE102A Fabricate, assemble and dismantle utilities industry components

- ∟ UEENEEE104A Solve problems in d.c. circuits
- □ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications
- ∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits
- ∟UEENEEG102A Solve problems in low voltage a.c. circuits
- ∟ UETDREL001 Apply environmental requirements
- ∟UETDREL005 Work safely in the vicinity of live electrical apparatus
- ∟ UETDRIS005 Implement & monitor power system environmental & sustainable energy management policies & procedures
- ∟ UETDRIS006 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs

UETDRDS011

Draft and layout a power system underground distribution extension

- ∟ 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
- ∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits
- ∟ UEENEEG102A Solve problems in low voltage a.c. circuits
- ∟ UETDREL001 Apply environmental requirements
- ∟UETDREL005 Work safely in the vicinity of live electrical apparatus

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∟ UETDRIS005 Implement & monitor power system environmental & sustainable energy management policies & procedures

Group D: Qualification elective units		Weighting Points
UEECO0001	Estimate electrotechnology projects	40
UEECO0014	Prepare tender submissions for electrotechnology projects	60
	∟UEECO0001 Estimate electrotechnology projects	
UEENEER001B	Contribute to the planning of a research project	120
UEENEER002B	Contribute to the conduct of a research project	120
UEENEER003B	Contribute to the development of a product/application/service	120
UEENEER004B	Contribute to the trial of a product/application/ service	120
UEPOPS015	Conduct project management	60
UEPOPS038	Evaluate cost estimations and initiate appropriate solutions	40
	∟ UEECO0001 Estimate electrotechnology projects	
UETDRDS002	Design overhead distribution power systems	140
	Common Unit Group	
	☐ 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	
	□ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications	
	☐ UEENEEE125A Provide engineering solutions for problems in complex multiple path circuits	
	☐ UEENEEE126A Provide solutions to basic engineering computational problems	
	∟UEENEEG101A Solve problems in electromagnetic	

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devices and related circuits

∟ UEENEEG102A Solve problems in low voltage a.c. circuits

∟ UEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits

∟ UETDREL001 Apply environmental requirements

∟ UETDREL005 Work safely in the vicinity of live electrical apparatus

∟ UETDRIS005 Implement & monitor power system environmental & sustainable energy management policies & procedures

∟ UETDRIS006 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs

Pathway Unit Group 1

∟UETDRDS013 Organise and implement ESI line and easement surveys

∟ UETDRDS014 Prepare and manage detailed construction plans for electrical power system infrastructure

Pathway Unit Group 2

∟ UETDRDS006 Develop high voltage and low voltage distribution protection systems

UETDRDS003

Design power system distribution substations

140

Common Unit Group

∟UEENEEE102A Fabricate, assemble and dismantle utilities industry components

∟ UEENEEE104A Solve problems in d.c. circuits

□ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications

∟ UEENEEE125A Provide engineering solutions for problems in complex multiple path circuits

∟ UEENEEE126A Provide solutions to basic engineering computational problems

∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits

LUEENEEG102A Solve problems in low voltage a.c.

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circuits

∟ UEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits

∟ UETDREL001 Apply environmental requirements

∟ UETDREL005 Work safely in the vicinity of live electrical apparatus

∟ UETDRIS005 Implement & monitor power system environmental & sustainable energy management policies & procedures

∟UETDRIS006 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs

Pathway Unit Group 1

∟UETDRDS013 Organise and implement ESI line and easement surveys

∟ UETDRDS014 Prepare and manage detailed construction plans for electrical power system infrastructure

Pathway Unit Group 2

∟ UETDRDS006 Develop high voltage and low voltage distribution protection systems

UETDRDS004

Design power system public lighting systems

140

Common Unit Group

∟ 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

□ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications

∟ UEENEEE125A Provide engineering solutions for problems in complex multiple path circuits

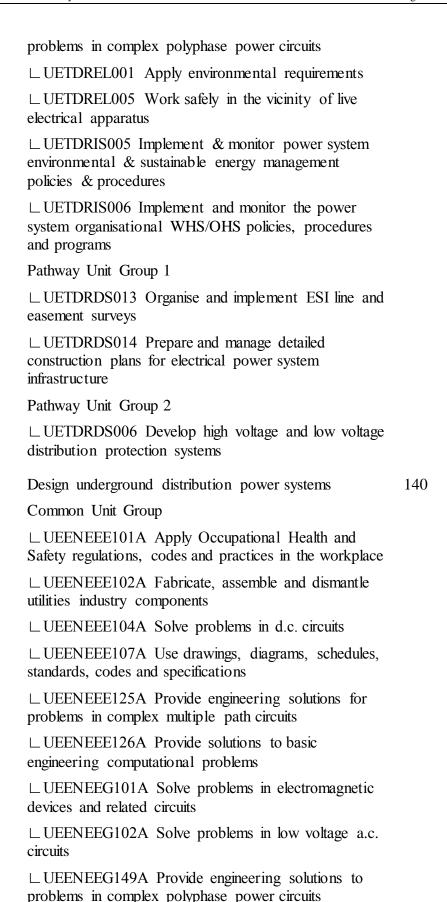
∟ UEENEEE126A Provide solutions to basic engineering computational problems

∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits

∟ UEENEEG102A Solve problems in low voltage a.c. circuits

LUEENEEG149A Provide engineering solutions to

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UETDRDS005

UETDRDS006

LUETDREL001 Apply environmental requirements ∟UETDREL005 Work safely in the vicinity of live electrical apparatus ∟ UETDRIS005 Implement & monitor power system environmental & sustainable energy management policies & procedures ∟ UETDRIS006 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs Pathway Unit Group 1 LUETDRDS013 Organise and implement ESI line and easement surveys ∟ UETDRDS014 Prepare and manage detailed construction plans for electrical power system infrastructure Pathway Unit Group 2 ∟ UETDRDS006 Develop high voltage and low voltage distribution protection systems Develop high voltage and low voltage distribution 150 protection systems LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace LUEENEEE102A Fabricate, assemble and dismantle utilities industry components LUEENEE104A Solve problems in d.c. circuits LUEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications LUEENEE125A Provide engineering solutions for problems in complex multiple path circuits ∟ UEENEEE126A Provide solutions to basic engineering computational problems LUEENEEG101A Solve problems in electromagnetic devices and related circuits ∟ UEENEEG102A Solve problems in low voltage a.c.

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LUEENEEG149A Provide engineering solutions to

∟ UETDREL001 Apply environmental requirements

∟ UETDREL005 Work safely in the vicinity of live

problems in complex polyphase power circuits

circuits

electrical apparatus

∟ UETDRIS005 Implement & monitor power system environmental & sustainable energy management policies & procedures

UETDRDS007

Develop planned power systems outage strategies

140

∟ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace

∟ UEENEED104A Use engineering applications software on personal computers

∟UETDREL005 Work safely in the vicinity of live electrical apparatus

∟ UETDRIS006 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs

UETDRDS012

Investigate quality of power systems supply issues

140

Common Unit Group

∟ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace

∟ UEENEEE102A Fabricate, assemble and dismantle utilities industry components

LUEENEEE104A Solve problems in d.c. circuits

□ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications

∟ UEENEEE125A Provide engineering solutions for problems in complex multiple path circuits

∟ UEENEEE126A Provide solutions to basic engineering computational problems

∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits

☐ UEENEEG102A Solve problems in low voltage a.c. circuits

LUEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits

∟ UETDRDS002 Design overhead distribution power systems

∟ UETDRDS005 Design underground distribution

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power systems ∟ UETDREL001 Apply environmental requirements ∟ UETDREL005 Work safely in the vicinity of live electrical apparatus ∟ UETDRIS005 Implement & monitor power system environmental & sustainable energy management policies & procedures ∟UETDRIS006 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs Pathway Unit Group 1 LUETDRDS013 Organise and implement ESI line and easement surveys ∟ UETDRDS014 Prepare and manage detailed construction plans for electrical power system infrastructure Pathway Unit Group 2 ∟ UETDRDS006 Develop high voltage and low voltage distribution protection systems Organise and implement ESI line and easement surveys 140 LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace LUEENEEE104A Solve problems in d.c. circuits LUEENEEE107A 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. circuits ∟ UETDRDS014 Prepare and manage detailed construction plans for electrical power system infrastructure LUETDREL001 Apply environmental requirements ∟ UETDREL005 Work safely in the vicinity of live electrical apparatus

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∟ UETDRIS005 Implement & monitor power system environmental & sustainable energy management

∟ UETDRIS006 Implement and monitor the power

policies & procedures

UETDRDS013

system organisational WHS/OHS policies, procedures and programs

UETDRDS014

Prepare and manage detailed construction plans for electrical power system infrastructure

140

 □ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace

LUEENEEE104A Solve problems in d.c. circuits

□ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications

∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits

∟ UEENEEG102A Solve problems in low voltage a.c. circuits

∟ UETDREL001 Apply environmental requirements

∟ UETDREL005 Work safely in the vicinity of live electrical apparatus

∟ UETDRIS005 Implement & monitor power system environmental & sustainable energy management policies & procedures

∟ UETDRIS006 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs

UETDRSO001

Coordinate high voltage distribution and sub-transmission networks

150

∟ UEENEED104A Use engineering applications software on personal computers

☐ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace

∟ UEENEEE102A Fabricate, assemble and dismantle utilities industry components

LUEENEEE104A Solve problems in d.c. circuits

□ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications

∟ UEENEEE124A Compile and produce an energy sector detailed report

∟ UEENEEE125A Provide engineering solutions for problems in complex multiple path circuits

∟ UEENEEE126A Provide solutions to basic engineering computational problems

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UETDRSO002

LUEENEEG101A Solve problems in electromagnetic devices and related circuits LUEENEEG102A Solve problems in low voltage a.c. circuits LUEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits ∟ UETDREL001 Apply environmental requirements LUETDREL005 Work safely in the vicinity of live electrical apparatus ∟ UETDRIS005 Implement & monitor power system environmental & sustainable energy management policies & procedures ∟ UETDRIS006 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs ∟ UETDRSO005 Develop high voltage distribution and sub-transmission switching programs Coordinate high voltage transmission network ∟ UEENEED104A Use engineering applications software on personal computers LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace LUEENEEE102A Fabricate, assemble and dismantle utilities industry components LUEENEEE104A Solve problems in d.c. circuits ∟ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications ∟ UEENEE124A Compile and produce an energy sector detailed report LUEENEE125A Provide engineering solutions for problems in complex multiple path circuits ∟ UEENEEE126A Provide solutions to basic engineering computational problems LUEENEEG101A Solve problems in electromagnetic devices and related circuits

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LUEENEEG102A Solve problems in low voltage a.c.

LUEENEEG149A Provide engineering solutions to

problems in complex polyphase power circuits

circuits

UETDRSO003

LUETDREL001 Apply environmental requirements LUETDREL005 Work safely in the vicinity of live electrical apparatus ∟ UETDRIS005 Implement & monitor power system environmental & sustainable energy management policies & procedures ∟ UETDRIS006 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs ∟ UETDRSO004 Develop and evaluate power systems transmission switching programs Coordinate power system operations in a regulated energy market Common Unit Group ∟ UEENEED104A Use engineering applications software on personal computers LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace LUEENEEE102A Fabricate, assemble and dismantle utilities industry components LUEENEEE104A Solve problems in d.c. circuits LUEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications ∟ UEENEEE124A Compile and produce an energy sector detailed report LUEENEE125A Provide engineering solutions for problems in complex multiple path circuits ∟ UEENEEE126A Provide solutions to basic engineering computational problems LUEENEEG101A Solve problems in electromagnetic devices and related circuits LUEENEEG102A Solve problems in low voltage a.c. circuits LUEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits LUETDREL001 Apply environmental requirements

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∟ UETDREL005 Work safely in the vicinity of live

∟ UETDRIS005 Implement & monitor power system

electrical apparatus

environmental & sustainable energy management policies & procedures

∟ UETDRIS006 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs

Distribution and Sub-transmission Pathway Unit Group

∟ UETDRSO001 Coordinate high voltage distribution and sub-transmission networks

∟ UETDRSO005 Develop high voltage distribution and sub-transmission switching programs

Transmission Pathway Unit Group

∟UETDRSO002 Coordinate high voltage transmission network

∟UETDRSO004 Develop and evaluate power systems transmission switching programs

UETDRSO004

Develop and evaluate power systems transmission switching programs

150

∟ UEENEED104A Use engineering applications software on personal computers

∟ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace

∟ UEENEEE102A Fabricate, assemble and dismantle utilities industry components

LUEENEEE104A Solve problems in d.c. circuits

□ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications

∟ UEENEE124A Compile and produce an energy sector detailed report

∟ UEENEEE125A Provide engineering solutions for problems in complex multiple path circuits

∟ UEENEEE126A Provide solutions to basic engineering computational problems

∟UEENEEG101A Solve problems in electromagnetic devices and related circuits

∟ UEENEEG102A Solve problems in low voltage a.c. circuits

∟ UEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits

LUETDREL001 Apply environmental requirements

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UETDRSO005

LUETDREL005 Work safely in the vicinity of live electrical apparatus ∟ UETDRIS005 Implement & monitor power system environmental & sustainable energy management policies & procedures ∟ UETDRIS006 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs Develop high voltage distribution and sub-transmission switching programs ∟ UEENEED104A Use engineering applications software on personal computers LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace LUEENEEE102A Fabricate, assemble and dismantle utilities industry components LUEENEEE104A Solve problems in d.c. circuits LUEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications ∟ UEENEEE124A Compile and produce an energy sector detailed report LUEENEE125A Provide engineering solutions for problems in complex multiple path circuits ∟ UEENEEE126A Provide solutions to basic engineering computational problems LUEENEEG101A Solve problems in electromagnetic devices and related circuits LUEENEEG102A Solve problems in low voltage a.c. circuits LUEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits LUETDREL001 Apply environmental requirements ∟ UETDREL005 Work safely in the vicinity of live

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∟ UETDRIS005 Implement & monitor power system environmental & sustainable energy management

∟ UETDRIS006 Implement and monitor the power system organisational WHS/OHS policies, procedures

electrical apparatus

policies & procedures

and programs

UETDRSO006 Develo

Develop low voltage distribution switching programs

150

∟ UEENEED104A Use engineering applications software on personal computers

∟ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace

∟ UEENEEE102A Fabricate, assemble and dismantle utilities industry components

LUEENEEE104A Solve problems in d.c. circuits

□ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications

∟ UEENEEE124A Compile and produce an energy sector detailed report

∟ UEENEE125A Provide engineering solutions for problems in complex multiple path circuits

☐ UEENEEE126A Provide solutions to basic engineering computational problems

∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits

∟UEENEEG102A Solve problems in low voltage a.c. circuits

∟ UEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits

LUETDREL001 Apply environmental requirements

∟ UETDREL005 Work safely in the vicinity of live electrical apparatus

∟ UETDRIS005 Implement & monitor power system environmental & sustainable energy management policies & procedures

∟ UETDRIS006 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs

UETDRSO011

Respond to discrete and interdependent protection operations

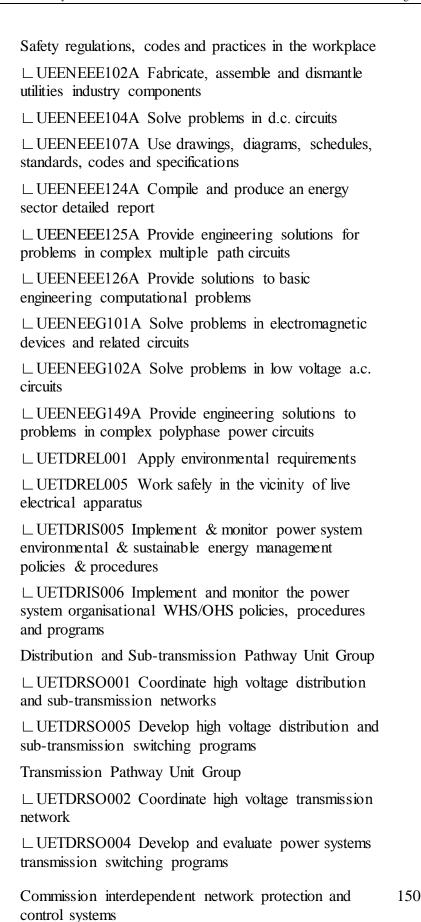
150

Common Unit Group

∟ UEENEED104A Use engineering applications software on personal computers

∟ UEENEEE101A Apply Occupational Health and

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software on personal computers ∟ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace ∟ UEENEEE102A Fabricate, assemble and dismantle utilities industry components LUEENEEE104A Solve problems in d.c. circuits LUEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications LUEENEE124A Compile and produce an energy sector detailed report LUEENEE125A Provide engineering solutions for problems in complex multiple path circuits ∟ UEENEEE126A Provide solutions to basic engineering computational problems LUEENEEG101A Solve problems in electromagnetic devices and related circuits LUEENEEG102A Solve problems in low voltage a.c. circuits LUEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits LUETDREL001 Apply environmental requirements ∟ UETDREL005 Work safely in the vicinity of live electrical apparatus ∟ UETDRIS005 Implement & monitor power system environmental & sustainable energy management policies & procedures ∟ UETDRIS006 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs ∟ UETDRTS010 Develop power systems secondary isolation instructional documents ∟ UETDRTS017 Maintain interdependent network protection and control systems 150 Commission power systems metering schemes ∟ UEENEED104A Use engineering applications

∟ UEENEED104A Use engineering applications

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∟ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace

software on personal computers

LUEENEEE102A Fabricate, assemble and dismantle utilities industry components LUEENEEE104A Solve problems in d.c. circuits ∟ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications ∟ UEENEEE124A Compile and produce an energy sector detailed report LUEENEE125A Provide engineering solutions for problems in complex multiple path circuits ∟ UEENEEE126A Provide solutions to basic engineering computational problems LUEENEEG101A Solve problems in electromagnetic devices and related circuits LUEENEEG102A Solve problems in low voltage a.c. circuits LUEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits ∟ UETDREL001 Apply environmental requirements LUETDREL005 Work safely in the vicinity of live electrical apparatus ∟ UETDRIS005 Implement & monitor power system environmental & sustainable energy management policies & procedures ∟ UETDRIS006 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs ∟ UETDRTS010 Develop power systems secondary isolation instructional documents ∟ UETDRTS014 Maintain and test and metering schemes Develop power systems secondary isolation instructional 150 documents ∟ UEENEED104A Use engineering applications software on personal computers LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace ∟UEENEEE102A Fabricate, assemble and dismantle utilities industry components

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∟ UEENEEE104A Solve problems in d.c. circuits

∟ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications ∟ UEENEEE124A Compile and produce an energy sector detailed report ∟ UEENEEE125A Provide engineering solutions for problems in complex multiple path circuits ∟ UEENEEE126A Provide solutions to basic engineering computational problems LUEENEEG101A Solve problems in electromagnetic devices and related circuits LUEENEEG102A Solve problems in low voltage a.c. circuits LUEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits LUETDREL001 Apply environmental requirements ∟ UETDREL005 Work safely in the vicinity of live electrical apparatus ∟ UETDRIS005 Implement & monitor power system environmental & sustainable energy management policies & procedures ∟ UETDRIS006 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs 150 Install and maintain power system communication equipment ∟ UEENEED104A Use engineering applications software on personal computers LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace LUEENEEE102A Fabricate, assemble and dismantle utilities industry components LUEENEEE104A Solve problems in d.c. circuits ∟ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications ∟ UEENEEE124A Compile and produce an energy sector detailed report

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LUEENEE125A Provide engineering solutions for

problems in complex multiple path circuits

∟ UEENEEE126A Provide solutions to basic

engineering computational problems

∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits

∟ UEENEEG102A Solve problems in low voltage a.c. circuits

∟ UEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits

∟ UETDREL001 Apply environmental requirements

∟ UETDREL005 Work safely in the vicinity of live electrical apparatus

∟ UETDRIS005 Implement & monitor power system environmental & sustainable energy management policies & procedures

∟ UETDRIS006 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs

UETDRTS014

Maintain and test and metering schemes

140

∟ UEENEED104A Use engineering applications software on personal computers

∟ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace

∟ UEENEEE102A Fabricate, assemble and dismantle utilities industry components

LUEENEEE104A Solve problems in d.c. circuits

□ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications

□ UEENEEE124A Compile and produce an energy sector detailed report

∟ UEENEEE125A Provide engineering solutions for problems in complex multiple path circuits

∟ UEENEEE126A Provide solutions to basic engineering computational problems

∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits

∟ UEENEEG102A Solve problems in low voltage a.c. circuits

∟ UEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits

LUETDREL001 Apply environmental requirements

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UETDRTS015

LUETDREL005 Work safely in the vicinity of live electrical apparatus ∟ UETDRIS005 Implement & monitor power system environmental & sustainable energy management policies & procedures ∟ UETDRIS006 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs ∟ UETDRTS010 Develop power systems secondary isolation instructional documents Maintain complex network protection and control systems ∟ UEENEED104A Use engineering applications software on personal computers LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace LUEENEEE102A Fabricate, assemble and dismantle utilities industry components LUEENEEE104A Solve problems in d.c. circuits LUEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications LUEENEE124A Compile and produce an energy sector detailed report ∟ UEENEEE125A Provide engineering solutions for problems in complex multiple path circuits ∟ UEENEEE126A Provide solutions to basic engineering computational problems LUEENEEG101A Solve problems in electromagnetic devices and related circuits LUEENEEG102A Solve problems in low voltage a.c. circuits LUEENEEG149A Provide engineering solutions to

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problems in complex polyphase power circuits

electrical apparatus

policies & procedures

□ UETDREL001 Apply environmental requirements
 □ UETDREL005 Work safely in the vicinity of live

∟ UETDRIS005 Implement & monitor power system environmental & sustainable energy management

UETDRTS017

∟ UETDRIS006 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs ∟ UETDRTS010 Develop power systems secondary isolation instructional documents ∟UETDRTS017 Maintain interdependent network protection and control systems Maintain interdependent network protection and control systems ∟ UEENEED104A Use engineering applications software on personal computers LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace ∟ UEENEEE102A Fabricate, assemble and dismantle utilities industry components LUEENEEE104A Solve problems in d.c. circuits ∟ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications ∟ UEENEEE124A Compile and produce an energy sector detailed report LUEENEE125A Provide engineering solutions for problems in complex multiple path circuits ∟ UEENEEE126A Provide solutions to basic engineering computational problems ∟UEENEEG101A Solve problems in electromagnetic devices and related circuits LUEENEEG102A Solve problems in low voltage a.c. circuits ∟ UEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits ∟ UETDREL001 Apply environmental requirements LUETDREL005 Work safely in the vicinity of live electrical apparatus ∟ UETDRIS005 Implement & monitor power system environmental & sustainable energy management

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∟ UETDRIS006 Implement and monitor the power system organisational WHS/OHS policies, procedures

policies & procedures

and programs

∟ UETDRTS010 Develop power systems secondary isolation instructional documents UETDRTS018 Maintain, test and commission power systems voltage 150 regulating equipment ∟ UEENEED104A Use engineering applications software on personal computers LUEENEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace ∟ UEENEEE102A Fabricate, assemble and dismantle utilities industry components LUEENEEE104A Solve problems in d.c. circuits LUEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications LUEENEE124A Compile and produce an energy sector detailed report LUEENEEE125A Provide engineering solutions for problems in complex multiple path circuits ∟ UEENEEE126A Provide solutions to basic engineering computational problems LUEENEEG101A Solve problems in electromagnetic devices and related circuits LUEENEEG102A Solve problems in low voltage a.c. circuits LUEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits ∟ UETDREL001 Apply environmental requirements ∟ UETDREL005 Work safely in the vicinity of live electrical apparatus ∟ UETDRIS005 Implement & monitor power system environmental & sustainable energy management policies & procedures ∟ UETDRIS006 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs UETDRTS021 Perform accuracy checks on power systems instrument 150 transformers ∟ UEENEED104A Use engineering applications software on personal computers LUEENEEE101A Apply Occupational Health and

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Safety regulations, codes and practices in the workplace LUEENEE102A Fabricate, assemble and dismantle utilities industry components ∟ UEENEEE104A Solve problems in d.c. circuits LUEENEE107A Use drawings, diagrams, schedules, standards, codes and specifications ∟ UEENEE124A Compile and produce an energy sector detailed report ∟ UEENEE125A Provide engineering solutions for problems in complex multiple path circuits ∟ UEENEEE126A Provide solutions to basic engineering computational problems LUEENEEG101A Solve problems in electromagnetic devices and related circuits LUEENEEG102A Solve problems in low voltage a.c. circuits LUEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits ∟ UETDREL001 Apply environmental requirements LUETDREL005 Work safely in the vicinity of live electrical apparatus ∟ UETDRIS005 Implement & monitor power system environmental & sustainable energy management policies & procedures ∟ UETDRIS006 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs Repair, test and calibrate protection relays and meters 150 ∟ UEENEED104A Use engineering applications software on personal computers LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace ∟ UEENEEE102A Fabricate, assemble and dismantle utilities industry components LUEENEEE104A Solve problems in d.c. circuits ∟ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications ∟ UEENEEE124A Compile and produce an energy sector detailed report

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LUEENEE125A Provide engineering solutions for problems in complex multiple path circuits ∟ UEENEEE126A Provide solutions to basic engineering computational problems ∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits LUEENEEG102A Solve problems in low voltage a.c. circuits LUEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits LUETDREL001 Apply environmental requirements LUETDREL005 Work safely in the vicinity of live electrical apparatus ∟ UETDRIS005 Implement & monitor power system environmental & sustainable energy management policies & procedures ∟ UETDRIS006 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs Diagnose and rectify faults in energy supply apparatus Common Unit Group LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace LUEENEEE102A Fabricate, assemble and dismantle utilities industry 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. circuits ∟ UEENEEG006A Solve problems in single and three phase low voltage machines

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∟ UEENEEG106A Terminate cables, cords and

LUETTDRIS67 Solve problems in energy supply

accessories for low voltage circuits

UETTDRIS69

network equipment

	∟ UETTDRIS68 Solve problems in energy supply network protection equipment and systems	
UETTDRIS71	Diagnose and rectify faults in electrical energy supply transmission systems	60
	Common Unit Group	
	☐ 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	
	∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits	
	∟ UEENEEG102A Solve problems in low voltage a.c. circuits	
	∟ UEENEEG006A Solve problems in single and three phase low voltage machines	
	☐ UEENEEG106A Terminate cables, cords and accessories for low voltage circuits	
	∟ UETTDRIS67 Solve problems in energy supply network equipment	
	∟ UETTDRIS68 Solve problems in energy supply network protection equipment and systems	
	∟UETTDRIS69 Diagnose and rectify faults in energy supply apparatus	
UETTDRSO45	Operate and monitor system SCADA equipment	150
	Common Unit Group	
	∟ UETTDREL15 Respond to power systems technical enquiries and requests	
UETTDRSO46	Monitor and control the field staff activities	150
	To minimise incidents related to safe systems of work, entry into this unit requires at a minimum that an individual has demonstrated or possesses relevant technical engineering discipline competencies of at least	

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AQF level 3. It is intended that an individual will be expected to perform with a large degree of autonomy in decision-making, whilst in an individual environment.

This may include immediate response to protect human life, adverse effect on safety, security of supply or the integrity of the assets.

NOTE: Typically the following disciplines provide direct entry; electrical or instrumentation, fitting and turning or mechanical trade.

Where an individual does not possess or demonstrate the requisite entry requirement, an equivalent bridging program shall be used to ensure equivalence of entry.

Qualification Mapping Information

This qualification replaces and is equivalent to UET50219 Diploma of ESI - Power Systems

Links

Companion Volume Implementation Guides are found in VETNet - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=229bace1-b7bc-4653-9300-dffb13ecfad7

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