

# **UET50319 Diploma of ESI - Power Systems Operations**

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## **Modification History**

Release 2. Removed deleted units UETTDRDS44, UETTDRDS49, UETTDRIS66, UETTDRSO39 and UETTDRSO43 from the qualification due to zero enrolments.

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

## **Qualification Description**

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

This qualification covers designing new overhead and underground powerline systems, overseeing the construction of electrical substations and related projects. These roles may also manage personnel, the business aspects of projects and give 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:

850 core weighting points listed below; plus

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

Choose a total of 750 **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 360 **weighting points** can be taken from Group B; between 0 and 200 **weighting points** can be taken from Group C and between 190 and 750 **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

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qualification. Previously assigned weighting points are listed in UET Transmission, Distribution and Rail Sector Training Package Companion Volume Implementation Guide, if not listed 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
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
	LUEENEEE029B Solve electrotechnical problems	
	or	
	∟ UEENEEG102A Solve problems in low voltage a.c. circuits	
	or	
	∟ UEENEEH014B Troubleshoot frequency dependent circuits	
UEENEEG101A	Solve problems in electromagnetic devices and related circuits	60

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	☐ 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	
UETTDREL11	Apply sustainable energy and environmental procedures	20
UETTDREL15	Respond to power systems technical enquiries and requests	40
UETTDREL16	Working safely near live electrical apparatus	20
UETTDRIS62	Implement and monitor the power system organisational WHS/OHS policies, procedures and programs	30
	Common Unit Group	
	☐ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace	
	☐ UETTDREL16 Working safely near live electrical apparatus	
UETTDRIS63	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	
	☐ UETTDREL11 Apply sustainable energy and environmental procedures	

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UETTDRSO45	Operate and monitor system SCADA equipment	150
	Common Unit Group	
	☐ UETTDREL15 Respond to power systems technical enquiries and requests	
Group A: Import	ed and common elective units	Weighting Points
BSBCUS501	Manage quality customer service	40
BSBFIM501	Manage budgets and financial plans	70
BSBINM501	Manage an information or knowledge management system	50
BSBINN502	Build and sustain an innovative work environment	50
BSBLED501	Develop a workplace learning environment	60
BSBMGT502	Manage people performance	70
BSBMGT516	Facilitate continuous improvement	60
BSBMGT517	Manage operational plan	60
BSBSUS501	Develop workplace policy and procedures for sustainability	50
BSBWOR501	Manage personal work priorities and professional development	60

#### Group B: Qualification elective units

strategies

#### **Weighting Points**

60

30

50

UEENEEE102A Fabricate, assemble and dismantle utilities industry 40 components

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

Lead and manage team effectiveness

Apply fatigue management strategies

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Administer the implementation of fatigue management

BSBWOR502

TLIF2010

TLIF3063

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

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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. 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	
	Common Unit Group  LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace	
	∟ UEENEEE101A Apply Occupational Health and	
	☐ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace ☐ UEENEEE102A Fabricate, assemble and dismantle	
	☐ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace ☐ UEENEEE102A Fabricate, assemble and dismantle utilities industry components	
	□ 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	
	L UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace  L UEENEEE102A Fabricate, assemble and dismantle utilities industry components  L UEENEEE104A Solve problems in d.c. circuits  L UEENEEE105A Fix and secure electrotechnology equipment  L UEENEEE107A Use drawings, diagrams, schedules,	
	L UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace  L UEENEEE102A Fabricate, assemble and dismantle utilities industry components  L UEENEEE104A Solve problems in d.c. circuits  L UEENEEE105A Fix and secure electrotechnology equipment  L UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications  L UEENEEG101A Solve problems in electromagnetic	
	L UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace  L UEENEEE102A Fabricate, assemble and dismantle utilities industry components  L UEENEEE104A Solve problems in d.c. circuits  L UEENEEE105A Fix and secure electrotechnology equipment  L UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications  L UEENEEG101A Solve problems in electromagnetic devices and related circuits  L UEENEEG102A Solve problems in low voltage a.c.	

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accessories for low voltage circuits

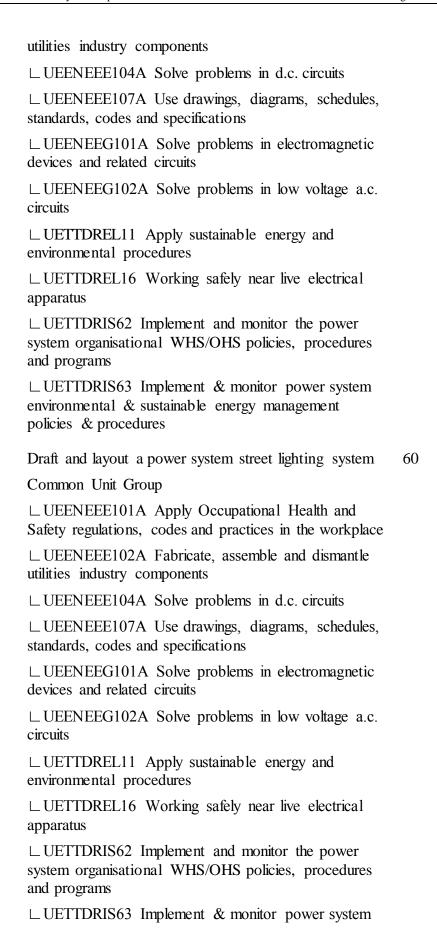
∟ UETTDRIS67 Solve problems in energy supply network equipment

## **Group C: Qualification elective units**

## Weighting Points

Group C. Quam	ication elective units	Weighting Tomics
UEENEEI155A	Develop structured programs to control external devices  L UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace	40
UETTDRDS31	Draft and layout a power system overhead distribution extension	60
	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	
	∟UEENEEG101A Solve problems in electromagnetic devices and related circuits	
	∟UEENEEG102A Solve problems in low voltage a.c. circuits	
	∟UETTDREL11 Apply sustainable energy and environmental procedures	
	∟UETTDREL16 Working safely near live electrical apparatus	
	☐ UETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures	
UETTDRDS32	Draft and layout a power system underground distribution extension	60
	Common Unit Group	
	□ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace	
	∟UEENEEE102A Fabricate, assemble and dismantle	

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**UETTDRDS33** 

environmental & sustainable energy management policies & procedures **UETTDRDS34** Draft and layout a power system distribution substation 60 minor upgrade Common Unit Group 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 ∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits LUEENEEG102A Solve problems in low voltage a.c. circuits LUETTDREL11 Apply sustainable energy and environmental procedures ∟ UETTDREL16 Working safely near live electrical apparatus ∟UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs LUETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures

#### Group D: Qualification elective units

#### Weighting Points

UETTDRDS35 Design overhead distribution power systems

140

Common Unit Group

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

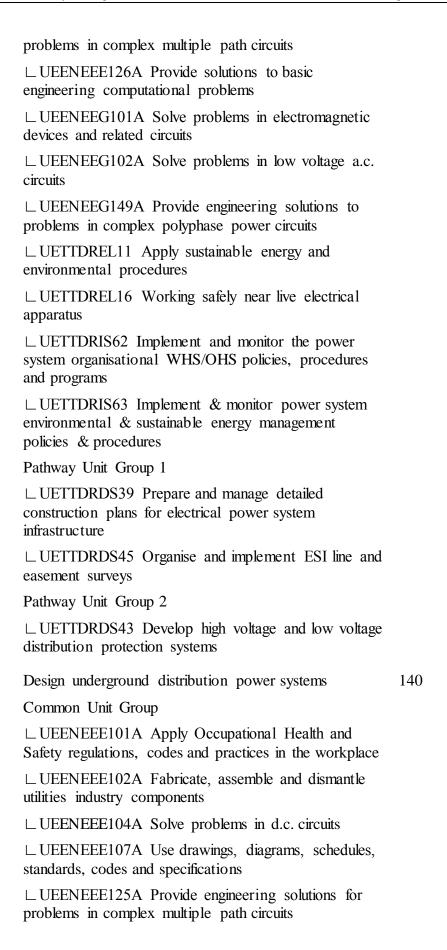
∟ UEENEEE102A Fabricate, assemble and dismantle utilities industry components

LUEENEEE104A Solve problems in d.c. circuits

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

∟ UEENEE125A Provide engineering solutions for

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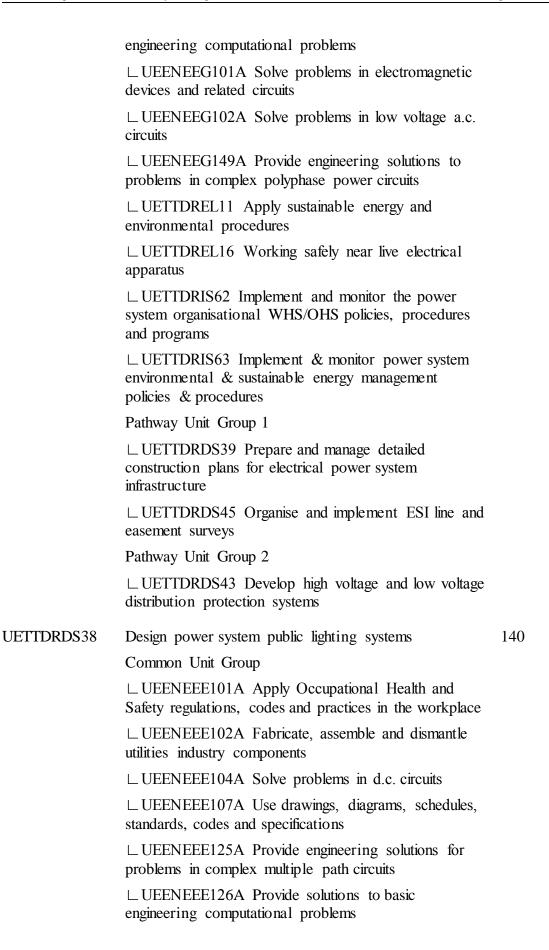
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**UETTDRDS36** 

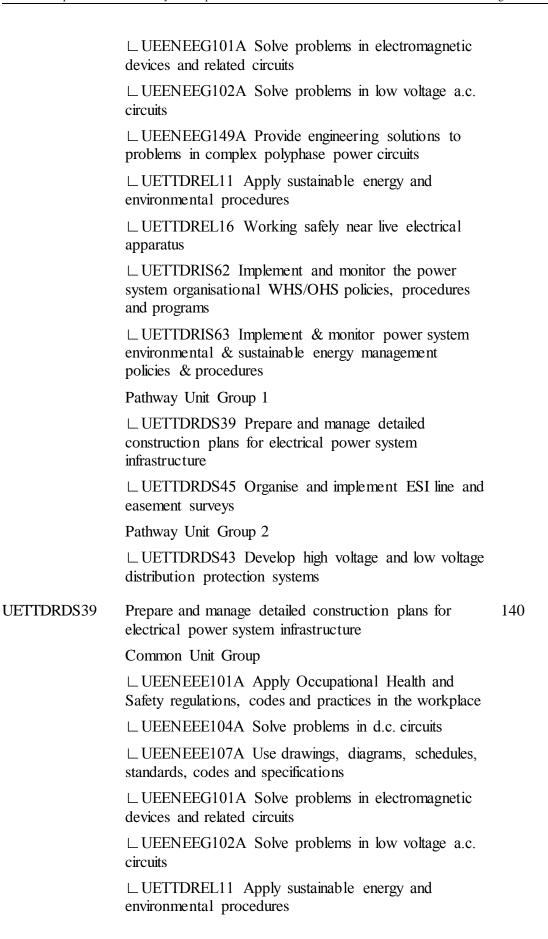
☐ UEENEEE126A Provide solutions to basic engineering computational problems	
∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits	
∟ UEENEEG102A Solve problems in low voltage a.c. circuits	
☐ UEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits	
∟UETTDREL11 Apply sustainable energy and environmental procedures	
∟ UETTDREL16 Working safely near live electrical apparatus	
∟ UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs	
☐ UETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures	
Pathway Unit Group 1	
☐ UETTDRDS39 Prepare and manage detailed construction plans for electrical power system infrastructure	
∟UETTDRDS45 Organise and implement ESI line and easement surveys	
Pathway Unit Group 2	
∟ UETTDRDS43 Develop high voltage and low voltage distribution protection systems	
Design power system distribution substations	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	

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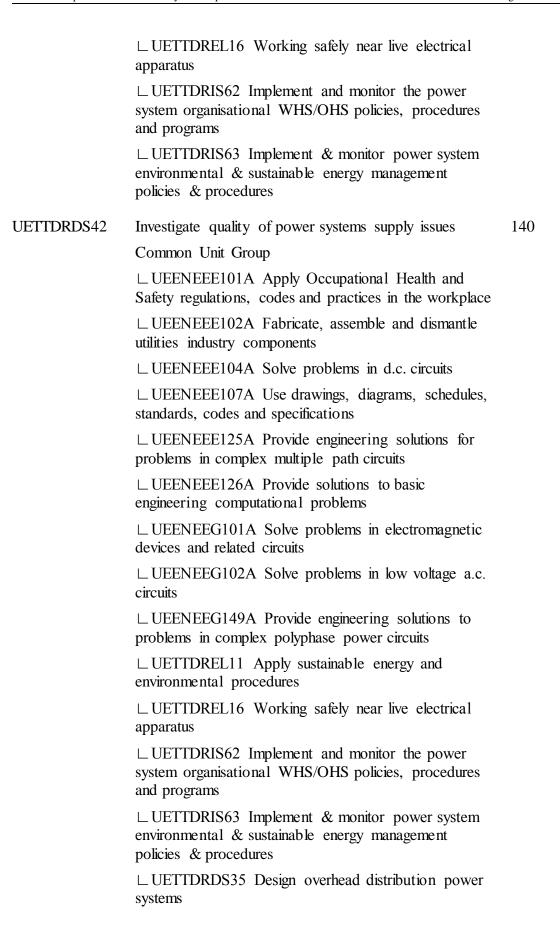
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**UETTDRDS43** 

∟ UETTDRDS36 Design underground distribution power systems Pathway Unit Group 1 ∟ UETTDRDS39 Prepare and manage detailed construction plans for electrical power system infrastructure LUETTDRDS45 Organise and implement ESI line and easement surveys Pathway Unit Group 2 ∟ UETTDRDS43 Develop high voltage and low voltage distribution protection systems Develop high voltage and low voltage distribution 150 protection systems 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 LUEENEEG101A 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 ∟ UETTDREL11 Apply sustainable energy and environmental procedures LUETTDREL16 Working safely near live electrical apparatus ∟ UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs ∟ UETTDRIS63 Implement & monitor power system

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140

Common Unit Group

**UETTDRDS45** 

environmental & sustainable energy management policies & procedures

Organise and implement ESI line and easement surveys

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

LUEENEEE104A Solve problems in d.c. circuits

∟UEENEEG101A Solve problems in electromagnetic devices and related circuits

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

∟ UETTDRDS39 Prepare and manage detailed construction plans for electrical power system infrastructure

∟UETTDREL11 Apply sustainable energy and environmental procedures

∟UETTDREL16 Working safely near live electrical apparatus

∟UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs

∟ UETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures

UETTDRDS46 Develop planned power systems outage strategies 140

Common Unit Group

LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace

∟ UEENEED104A Use engineering applications software on personal computers

∟ UETTDREL16 Working safely near live electrical apparatus

∟UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs

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## **UETTDRIS69** Diagnose and rectify faults in energy supply apparatus 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 LUEENEEE104A 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 **UETTDRIS70** Diagnose and rectify faults in electrical energy 60 distribution systems 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 LUEENEEG101A Solve problems in electromagnetic devices and related circuits LUEENEEG102A 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

∟UETTDRIS67 Solve problems in energy supply network equipment

∟UETTDRIS68 Solve problems in energy supply network protection equipment and systems

#### **UETTDRIS71**

Diagnose and rectify faults in electrical energy supply transmission systems

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

#### **UETTDRIS72**

Diagnose and rectify faults in distributed generation

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60

#### systems

## Common Unit Group LUEENEEE101A 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 LUEENEEG102A 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 150 Develop low voltage distribution switching programs Common Unit Group ∟ 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

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∟ UEENEEE107A Use drawings, diagrams, schedules,

∟ UEENEE124A Compile and produce an energy

standards, codes and specifications

sector detailed report

**UETTDRSO36** 

☐ 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
∟ UETTDREL11 Apply sustainable energy and environmental procedures
∟ UETTDREL16 Working safely near live electrical apparatus
□ UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs
☐ UETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures
Develop high voltage distribution and sub-transmission 150 switching programs
1 0 0
switching programs
switching programs  Common Unit Group  LUEENEED104A Use engineering applications
switching programs  Common Unit Group  L UEENEED104A Use engineering applications software on personal computers  L UEENEEE101A Apply Occupational Health and
switching programs  Common Unit Group  L UEENEED104A Use engineering applications software on personal computers  L UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace  L UEENEEE102A Fabricate, assemble and dismantle
switching programs  Common Unit Group  L UEENEED104A Use engineering applications software on personal computers  L UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace  L UEENEEE102A Fabricate, assemble and dismantle utilities industry components
switching programs  Common Unit Group  L UEENEED104A Use engineering applications software on personal computers  L UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace  L UEENEEE102A Fabricate, assemble and dismantle utilities industry components  L UEENEEE104A Solve problems in d.c. circuits  L UEENEEE107A Use drawings, diagrams, schedules,
Switching programs  Common Unit Group  L UEENEED104A Use engineering applications software on personal computers  L UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace  L UEENEEE102A Fabricate, assemble and dismantle utilities industry components  L UEENEEE104A Solve problems in d.c. circuits  L UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications  L UEENEEE124A Compile and produce an energy
Switching programs  Common Unit Group  L UEENEED104A Use engineering applications software on personal computers  L UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace  L UEENEEE102A Fabricate, assemble and dismantle utilities industry components  L UEENEEE104A Solve problems in d.c. circuits  L UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications  L UEENEEE124A Compile and produce an energy sector detailed report  L UEENEEE125A Provide engineering solutions for

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**UETTDRSO37** 

**UETTDRSO38** 

devices and related circuits LUEENEEG102A Solve problems in low voltage a.c. circuits LUEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits ∟ UETTDREL11 Apply sustainable energy and environmental procedures LUETTDREL16 Working safely near live electrical apparatus ∟ UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs ∟ UETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures Develop and evaluate power systems transmission 150 switching programs Common Unit Group ∟ 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 ∟ UEENEEE104A Solve problems in d.c. circuits ∟ UEENEE107A 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 LUEENEEG102A Solve problems in low voltage a.c. circuits LUEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits

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**UETTDRSO40** 

∟ UETTDREL11 Apply sustainable energy and environmental procedures LUETTDREL16 Working safely near live electrical apparatus ∟ UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs ∟ UETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures Coordinate high voltage distribution and 150 sub-transmission networks Common Unit Group ∟ 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 ∟ UEENEEE104A Solve problems in d.c. circuits ∟ UEENEE107A 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 ∟ UETTDREL11 Apply sustainable energy and environmental procedures LUETTDREL16 Working safely near live electrical apparatus ∟ UETTDRIS62 Implement and monitor the power

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system organisational WHS/OHS policies, procedures and programs

LUETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures

∟UETTDRSO37 Develop high voltage distribution and sub-transmission switching programs

#### **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 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.

#### **UETTDRSO47**

Coordinate high voltage transmission network

150

Common Unit Group

∟ 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

∟ UEENEEE104A Solve problems in d.c. circuits

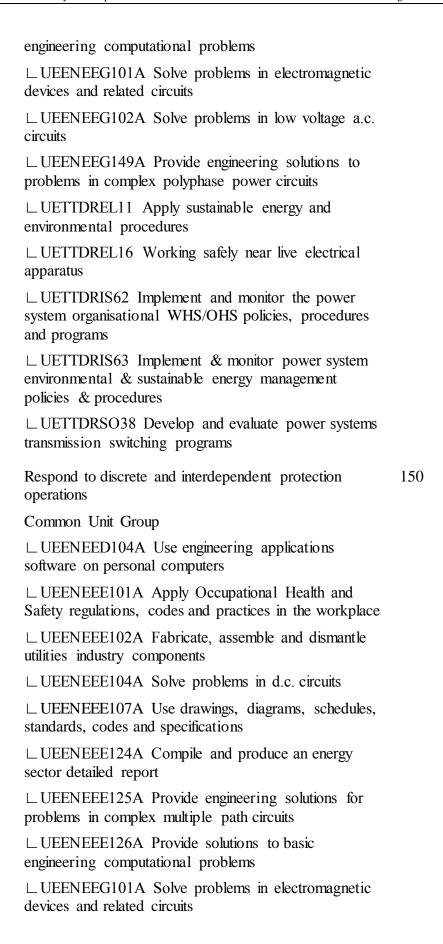
□ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications

∟ UEENEEE124A Compile and produce an energy sector detailed report

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

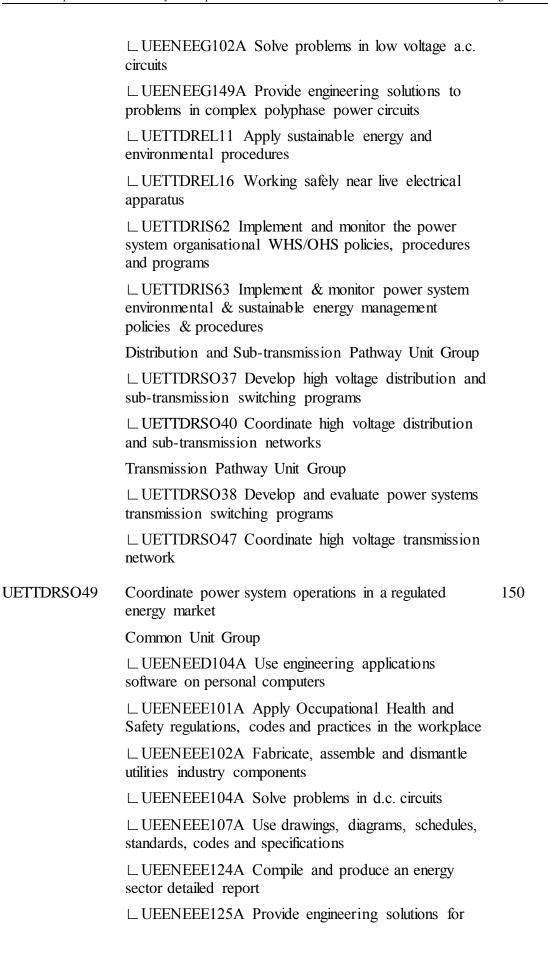
∟ UEENEEE126A Provide solutions to basic

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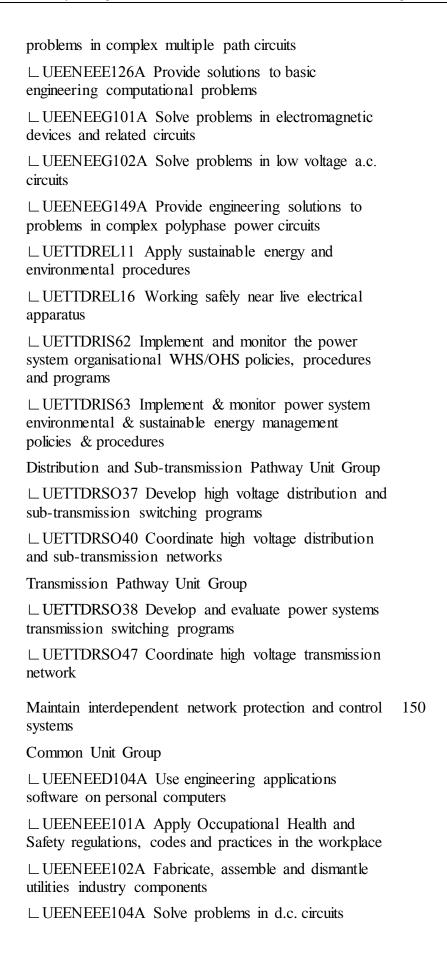


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**UETTDRSO48** 



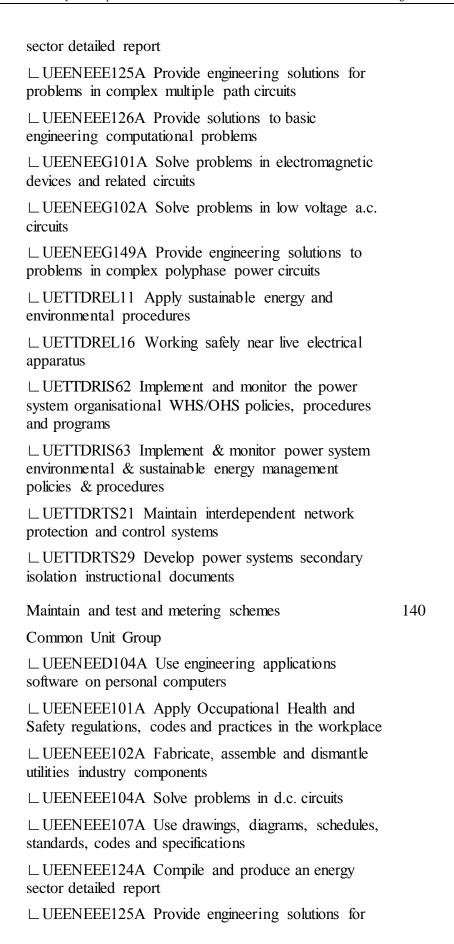
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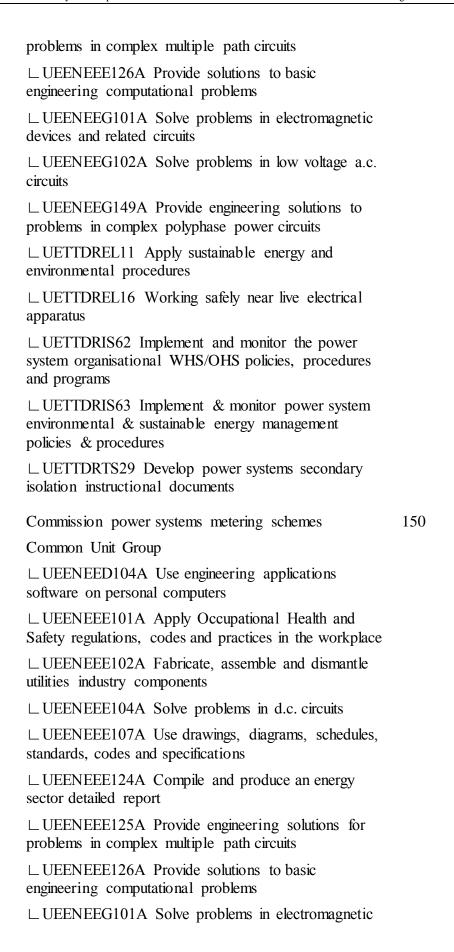
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∟ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications ∟ UEENEEE124A Compile and produce an energy sector detailed report ∟ UEENEEE125A Provide engineering solutions for problems in complex multiple path circuits ∟ UEENEEE126A 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 ∟ UETTDREL11 Apply sustainable energy and environmental procedures ∟ UETTDREL16 Working safely near live electrical apparatus ∟ UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs ∟ UETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures ∟ UETTDRTS29 Develop power systems secondary isolation instructional documents Commission interdependent network protection and 150 control systems Common Unit Group ∟ UEENEED104A Use engineering applications software on personal computers LUEENEE101A 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 LUEENEE107A Use drawings, diagrams, schedules, standards, codes and specifications ∟ UEENEEE124A Compile and produce an energy

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devices and related circuits LUEENEEG102A Solve problems in low voltage a.c. circuits LUEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits ∟ UETTDREL11 Apply sustainable energy and environmental procedures LUETTDREL16 Working safely near live electrical apparatus ∟ UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs LUETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures ∟ UETTDRTS25 Maintain and test and metering schemes ∟ UETTDRTS29 Develop power systems secondary isolation instructional documents Perform accuracy checks on power systems instrument 150 transformers Common Unit Group ∟ 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 ∟ UEENEEE104A 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 ∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits

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**UETTDRTS28** 

∟ UEENEEG102A Solve problems in low voltage a.c. circuits LUEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits ∟ UETTDREL11 Apply sustainable energy and environmental procedures ∟UETTDREL16 Working safely near live electrical apparatus ∟ UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs LUETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures Repair, test and calibrate protection relays and meters 150 Common Unit Group ∟ UEENEED104A Use engineering applications software on personal computers ∟ UEENEEE101A 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 ∟ 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 ∟ UEENEEG102A Solve problems in low voltage a.c. circuits LUEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits ∟ UETTDREL11 Apply sustainable energy and environmental procedures

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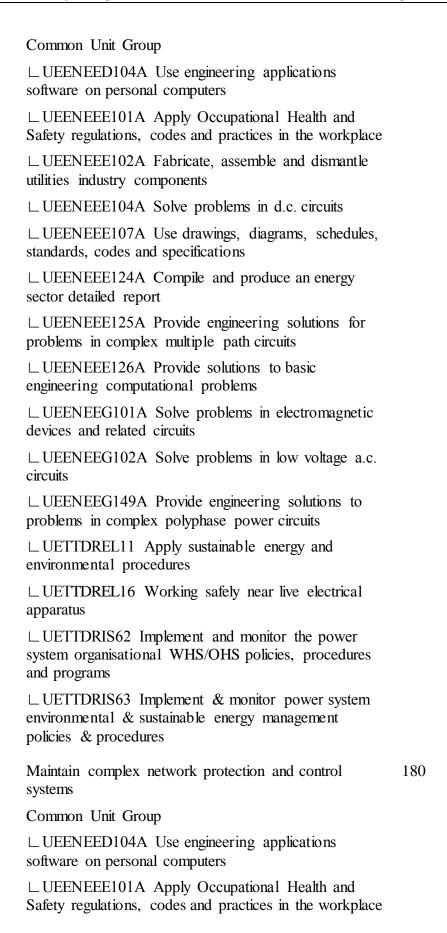
UETTDRTS29

∟UETTDREL16 Working safely near live electrical apparatus
□ UETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures
Develop power systems secondary isolation instructional 150 documents
Common Unit Group
☐ 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
∟UEENEEE104A Solve problems in d.c. circuits
☐ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications
LUEENEEE124A 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
∟UETTDREL11 Apply sustainable energy and environmental procedures
∟ UETTDREL16 Working safely near live electrical apparatus
□ UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs

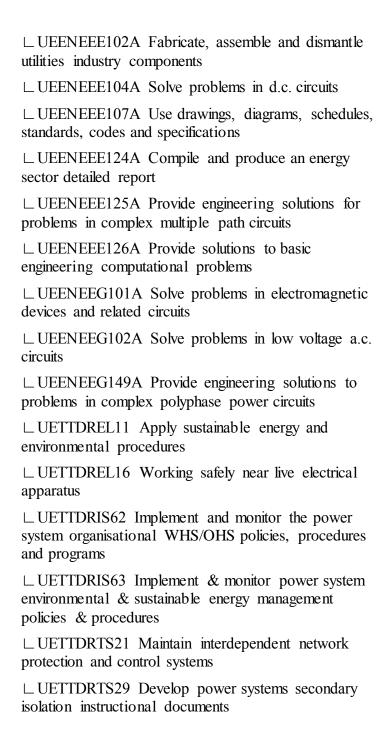
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∟ UETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures **UETTDRTS31** Maintain, test and commission power systems voltage 150 regulating equipment Common Unit Group ∟ UEENEED104A Use engineering 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 ∟ UEENEEE104A 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 ∟ UETTDREL11 Apply sustainable energy and environmental procedures LUETTDREL16 Working safely near live electrical apparatus ∟ UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs ∟ UETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures **UETTDRTS34** 150 Install and maintain power system communication equipment

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## **Qualification Mapping Information**

This qualification replaces and is equivalent to UET50312 Diploma of ESI - Power Systems Operations

#### 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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