



Australian Government

UET60222 Advanced Diploma of ESI - Power Systems

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Modification History

Release	Comments
2	<p>Superseded imported elective units updated in the UET Transmission, Distribution and Rail Sector Training Package Release 6.0.</p> <ul style="list-style-type: none"> • MEM30031 - Operate computer-aided design (CAD) system to produce basic drawing elements • MEM30033 - Use computer-aided design (CAD) to create and display 3-D models
1	<p>This qualification was first released in UET Transmission, Distribution and Rail Sector Release 4.0.</p>

Qualification Description

This qualification provides the skills and knowledge to work in the electricity supply industry within distribution and transmission networks. The qualification allows individuals to specialise in one of the following areas.

Design and Drafting

This specialisation covers the skills and knowledge for designing and drafting transmission and distribution networks, and the use of CAD software and drawing management systems.

Design

This specialisation covers the skills and knowledge for designing transmission and distribution networks.

System Operations Distribution

This specialisation covers the skills and knowledge for monitoring, operating, coordinating and maintaining distribution networks.

System Operations Transmission

This specialisation covers the skills and knowledge for monitoring, operating, coordinating and maintaining transmission networks.

Protection (Testing)

This specialisation covers the skills and knowledge for commissioning, maintaining, diagnosing faults of complex protection and control systems.

Protection and Metering (Testing)

This specialisation covers the skills and knowledge for commissioning, maintaining, diagnosing faults of metering systems.

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

Licensing/Regulatory Information

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

Total number of units

Specialisations

Design and Drafting

Total of **14 units** of competency

- **6 core units** listed below, plus
- **8 electives** from Group A and/or B, with up to 3 from Group G

Design

Total of **14 units** of competency

- **6 core units** listed below, plus
- **8 electives** from Group B

System Operations Distribution

Total of **13 units** of competency

- **6 core units** listed below, plus
- **7 electives** from Group C

System Operations Transmission

Total of **12 units** of competency

- **6 core** units listed below, plus
- **6 electives** from Group D

Protection (Testing)

Total of **14 units** of competency

- **6 core** units listed below, plus
- **8 electives** from Group E

Protection and Metering (Testing)

Total of **14 units** of competency

- **6 core** units listed below, plus
- **8 electives** from Group F

Up to 1 of the elective units may be selected, with appropriate contextualisation, from a qualification in this or any endorsed Training Package, provided the selected unit contributes to the vocational outcome of the qualification.

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

Units of competency that have a pre-requisite requirement are identified by this symbol *. Refer directly to the units of competency to identify pre-requisite requirements to ensure all are complied with.

Core units

UEECD0007	Apply work health and safety regulations, codes and practices in the workplace
UEECD0044	Solve problems in multiple path circuits*
UEECD0046	Solve problems in single path circuits*
UEECD0051	Use drawings, diagrams, schedules, standards, codes and specifications*
UEEEL0020	Solve problems in low voltage a.c. circuits*
UEEEL0021	Solve problems in magnetic and electromagnetic devices*

Group A: Design and drafting

UEECS0033	Use engineering applications software on personal computers
MEM30031	Operate computer-aided design (CAD) system to produce basic drawing elements

MEM30033	Use computer-aided design (CAD) to create and display 3-D models*
UETDRDS0 23	Draft and layout distribution substation minor upgrade*
UETDRDS0 24	Draft and layout overhead distribution extension*
UETDRDS0 25	Draft and layout street lighting system*
UETDRDS0 26	Draft and layout underground distribution extension*
UETDRDS0 28	Prepare and manage detailed construction plans for electrical infrastructure*
UETDREL0 05	Work safely in the vicinity of live electrical apparatus*
Group B: Design	
UEECS0033	Use engineering applications software on personal computers
UETDRDS0 15	Assess distributed energy resource connections to a distribution network*
UETDRDS0 16	Coordinate and perform line and easement surveys*
UETDRDS0 17	Design customer substations*
UETDRDS0 18	Design distribution protection systems*
UETDRDS0 19	Design distribution substations*
UETDRDS0 20	Design overhead distribution systems*
UETDRDS0 21	Design public lighting systems*
UETDRDS0 22	Design underground distribution systems*

UETDRDS0 27	Investigate quality of supply issues*
UETDRDS0 28	Prepare and manage construction plans for electrical infrastructure*
UETDREL0 05	Work safely in the vicinity of live electrical apparatus*
Group C: Systems operations distribution	
UETDRSO0 12	Coordinate and manage distribution and sub-transmission network access and activities*
UETDRSO0 15	Develop and validate distribution and sub-transmission switching programs*
UETDRSO0 16	Develop and validate low voltage switching programs*
UETDRSO0 18	Dispatch and monitor field staff activities
UETDRSO0 19	Manage supply and demand in distribution and sub-transmission networks*
UETDRSO0 20	Operate SCADA equipment
UETDRSO0 21	Respond to protection operations*
Group D: Systems operations transmission	
UETDRSO0 13	Coordinate and manage transmission network access and activities*
UETDRSO0 14	Coordinate operations in a regulated energy market*
UETDRSO0 17	Develop and validate transmission switching programs*
UETDRSO0 18	Dispatch and monitor field staff activities
UETDRSO0 20	Operate SCADA equipment

UETDRSO0 21	Respond to protection operations*
Group E: Protection (testing)	
UEECD0010	Compile and produce an energy sector detailed report
UEECD0019	Fabricate, assemble and dismantle utilities industry components*
UEECD0036	Provide engineering solutions for problems in complex multiple path circuits
UEECD0039	Provide solutions to basic engineering computational problems*
UETDREL0 05	Work safely in the vicinity of live electrical apparatus*
UETDRTS0 29	Commission and maintain communication equipment*
UETDRTS0 32	Commission and maintain metering schemes*
UETDRTS0 33	Commission and maintain network protection and control systems*
UETDRTS0 34	Commission and maintain voltage regulating equipment*
UETDRTS0 35	Conduct evaluation of network protection and control system faults*
UETDRTS0 36	Develop secondary protection and control scheme isolation and restoration documents*
UETDRTS0 37	Maintain and calibrate protection relays and meters*
UETDRTS0 38	Perform accuracy checks on instrument transformers*
UETDRTS0 39	Perform current injection testing of secondary devices*
Group F: Protection and metering (testing)	
UEECD0010	Compile and produce an energy sector detailed report
UEECD0019	Fabricate, assemble and dismantle utilities industry components*

UEECD0036	Provide engineering solutions for problems in complex multiple path circuits
UEECD0039	Provide solutions to basic engineering computational problems*
UEEEL0019	Solve problems in direct current (d.c.) machines*
UETDREL0 05	Work safely in the vicinity of live electrical apparatus*
UETDRTS0 28	Calibrate, verify and certify revenue metering/energy measurement instruments*
UETDRTS0 29	Commission and maintain communication equipment*
UETDRTS0 30	Commission and maintain complex energy/revenue metering schemes*
UETDRTS0 31	Commission and maintain energy/revenue metering schemes*
UETDRTS0 32	Commission and maintain metering schemes*
UETDRTS0 33	Commission and maintain network protection and control systems*
UETDRTS0 34	Commission and maintain voltage regulating equipment*
UETDRTS0 35	Conduct evaluation of network protection and control system faults*
UETDRTS0 36	Develop secondary protection and control scheme isolation and restoration documents*
UETDRTS0 37	Maintain and calibrate protection relays and meters*
UETDRTS0 38	Perform accuracy checks on instrument transformers*
Group G: General electives	
BSBFIN501	Manage budgets and financial plans
BSBHRM52 3	Coordinate the learning and development of teams and individuals

BSBINS501	Implement information and knowledge management systems
BSBLDR522	Manage people performance
BSBOPS502	Manage business operational plans
BSBOPS505	Manage organisational customer service
BSBPEF501	Manage personal and professional development
BSBSTR501	Establish innovative work environments
BSBSTR502	Facilitate continuous improvement
BSBSUS511	Develop workplace policies and procedures for sustainability
BSBTWK502	Manage team effectiveness
TLIF0021	Administer the implementation of fatigue management strategies
TLIF2010	Apply fatigue management strategies
UEECD0019	Fabricate, assemble and dismantle utilities industry components*
UEECD0030	Prepare electrotechnology/utilities drawings using manual drafting and CAD equipment and software*
UEECD0031	Prepare engineering drawings using manual drafting and CAD for electrotechnology applications*
UEECD0032	Produce detailed electrotechnology/utilities drawings using CAD equipment and software*
UEECD0036	Provide engineering solutions for problems in complex multiple path circuits
UEECD0039	Provide solutions to basic engineering computational problems*
UEECO0001	Estimate electrotechnology projects
UEECS0033	Use engineering applications software on personal computers
UEEEL0019	Solve problems in direct current (d.c.) machines*
UEEEL0062	Provide engineering solutions to problems in complex polyphase power circuits*

UEEIC0012	Develop structured programs to control external devices*
UEPOPS030	Coordinate power generation
UEPOPS038	Evaluate cost estimations and initiate appropriate solutions*
UETDRIS02 5	Diagnose and resolve faults in distribution systems*
UETDRIS02 6	Diagnose and resolve faults in electrical apparatus*
UETDRIS02 7	Diagnose and resolve faults in transmission systems*
UETDRIS02 8	Implement and monitor environmental policies and procedures
UETDRIS02 9	Implement and monitor organisational WHS/OHS policies, procedures and programs
UETDRIS03 2	Solve problems in network equipment*
UETDRIS03 3	Solve problems in network protection*

Pre-requisite Requirements

Unit of competency	Prerequisite requirement
UEEEL0021 Solve problems in magnetic and electromagnetic devices	UEECD0043 Solve problems in direct current circuits UEECD0007 Apply work health and safety regulations, codes and practices in the workplace UEECD0046 Solve problems in single path circuits UEECD0044 Solve problems in multiple path circuits

UEECD0031 Prepare engineering drawings using manual drafting and CAD for electrotechnology applications	<p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UEECD0019 Fabricate, assemble and dismantle utilities industry components</p> <p>UEECS0033 Use engineering applications software on personal computers</p>
UEECD0039 Provide solutions to basic engineering computational problems	<p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p>
UETDRIS026 Diagnose and resolve faults in electrical apparatus	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UETDRIS032 Solve problems in energy supply network equipment</p> <p>UEECD0019 Fabricate, assemble and dismantle utilities industry components</p> <p>UETDREL005 Work safely in the vicinity of live electrical apparatus</p> <p>UEECD0044 Solve problems in multiple path circuits</p>

UETDRDS018 Design distribution protection systems	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UETDREL005 Work safely in the vicinity of live electrical apparatus</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
UETDRTS031 Commission and maintain energy/revenue metering schemes	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UETDRTS036 Develop secondary protection and control scheme isolation and restoration documents</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UEECD0019 Fabricate, assemble and dismantle utilities industry components</p>

	<p>UEECD0010 Compile and produce an energy sector detailed report</p> <p>UETDREL005 Work safely in the vicinity of live electrical apparatus</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
UETDRDS020 Design overhead distribution systems	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UETDREL005 Work safely in the vicinity of live electrical apparatus</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
UETDRDS023 Draft and layout distribution substation minor upgrade	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p>

	<p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UETDREL005 Work safely in the vicinity of live electrical apparatus</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
<p>UETDRTS028 Calibrate, verify and certify revenue metering/energy measurement instruments</p>	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UEECD0019 Fabricate, assemble and dismantle utilities industry components</p> <p>UETDREL005 Work safely in the vicinity of live electrical apparatus</p> <p>UEEEL0019 Solve problems in direct current (d.c.) machines</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
<p>UETDRDS024 Draft and layout overhead distribution extension</p>	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p>

	<p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UETDREL005 Work safely in the vicinity of live electrical apparatus</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
UETDRSO017 Develop and validate transmission switching programs	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
UETDRTS035 Conduct evaluation of network protection and control system faults	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p>

	<p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UETDRTS036 Develop secondary protection and control scheme isolation and restoration documents</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UEECD0019 Fabricate, assemble and dismantle utilities industry components</p> <p>UEECD0010 Compile and produce an energy sector detailed report</p> <p>UETDREL005 Work safely in the vicinity of live electrical apparatus</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
UEECD0046 Solve problems in single path circuits	UEECD0007 Apply work health and safety regulations, codes and practices in the workplace
UETDRIS027 Diagnose and resolve faults in transmission systems	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UETDRIS026 Diagnose and resolve faults in electrical apparatus</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p>

	<p>UETDRIS032 Solve problems in energy supply network equipment</p> <p>UEECD0019 Fabricate, assemble and dismantle utilities industry components</p> <p>UETDREL005 Work safely in the vicinity of live electrical apparatus</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
<p>UETDRIS033 Solve problems in network protection</p>	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UETDRIS032 Solve problems in energy supply network equipment</p> <p>UEECD0019 Fabricate, assemble and dismantle utilities industry components</p> <p>UETDREL005 Work safely in the vicinity of live electrical apparatus</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
<p>UETDRDS025 Draft and layout street lighting system</p>	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p>

	<p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UETDREL005 Work safely in the vicinity of live electrical apparatus</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
UETDRTS034 Commission and maintain voltage regulating equipment	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UETDRTS036 Develop secondary protection and control scheme isolation and restoration documents</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UEECD0019 Fabricate, assemble and dismantle utilities industry components</p> <p>UEECD0010 Compile and produce an energy sector detailed report</p>

	<p>UETDREL005 Work safely in the vicinity of live electrical apparatus</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
<p>UETDRIS025 Diagnose and resolve faults in distribution systems</p>	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UETDRIS026 Diagnose and resolve faults in electrical apparatus</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UETDRIS032 Solve problems in energy supply network equipment</p> <p>UEECD0019 Fabricate, assemble and dismantle utilities industry components</p> <p>UETDREL005 Work safely in the vicinity of live electrical apparatus</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
<p>UETDRDS019 Design distribution substations</p>	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p>

	<p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UETDREL005 Work safely in the vicinity of live electrical apparatus</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
UETDRDS027 Investigate quality of supply issues	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UETDREL005 Work safely in the vicinity of live electrical apparatus</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
UETDRSO013 Coordinate and manage transmission network access and activities	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UETDRSO017 Develop and evaluate power systems transmission switching programs</p>

	<p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UETDRSO020 Operate SCADA equipment</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
UETDRDS022 Design underground distribution systems	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UETDREL005 Work safely in the vicinity of live electrical apparatus</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
UETDREL005 Work safely in the vicinity of live electrical apparatus	<p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p>

<p>UEECD0032 Produce detailed electrotechnology/utilities drawings using CAD equipment and software</p>	<p>UEECD0031 Prepare engineering drawings using manual drafting and CAD for electrotechnology applications</p> <p>UEECD0043 Solve problems in direct current circuits</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UEECD0019 Fabricate, assemble and dismantle utilities industry components</p> <p>UEECD0030 Prepare electrotechnology/utilities drawings using manual drafting and CAD equipment and software</p> <p>UEECS0033 Use engineering applications software on personal computers</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
<p>UETDRTS039 Perform current injection testing of secondary devices</p>	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p>

	<p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UEECD0019 Fabricate, assemble and dismantle utilities industry components</p> <p>UETDREL005 Work safely in the vicinity of live electrical apparatus</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
UETDRSO021 Respond to protection operations	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UETDRSO020 Operate SCADA equipment</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
UETDRDS015 Assess distributed energy resource connections to a distribution network	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p>

	<p>UETDRDS027 Investigate quality of power systems supply issues</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UETDREL005 Work safely in the vicinity of live electrical apparatus</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
<p>UEEEL0062 Provide engineering solutions to problems in complex polyphase power circuits</p>	<p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UEECD0036 Provide engineering solutions for problems in complex multiple path circuits</p>
<p>UETDRTS036 Develop secondary protection and control scheme isolation and restoration documents</p>	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UETDREL005 Work safely in the vicinity of live electrical apparatus</p> <p>UEECD0044 Solve problems in multiple path circuits</p>

MEM30033 Use computer-aided design (CAD) to create and display 3D models	MEM30031 Operate computer-aided design (CAD) system to produce basic drawing elements
UEECD0019 Fabricate, assemble and dismantle utilities industry components	UEECD0007 Apply work health and safety regulations, codes and practices in the workplace
UETDRTS032 Commission and maintain metering schemes	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UETDRTS036 Develop secondary protection and control scheme isolation and restoration documents</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UEECD0019 Fabricate, assemble and dismantle utilities industry components</p> <p>UEECD0010 Compile and produce an energy sector detailed report</p> <p>UETDREL005 Work safely in the vicinity of live electrical apparatus</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
UETDRTS038 Perform accuracy checks on instrument transformers	UEEEL0021 Solve problems in magnetic and electromagnetic devices

	<p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UETDRTS036 Develop secondary protection and control scheme isolation and restoration documents</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UEECD0019 Fabricate, assemble and dismantle utilities industry components</p> <p>UEECD0010 Compile and produce an energy sector detailed report</p> <p>UETDREL005 Work safely in the vicinity of live electrical apparatus</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
UEEEL0019 Solve problems in direct current (d.c.) machines	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0043 Solve problems in direct current circuits</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0044 Solve problems in multiple path circuits</p>

UEPOPS038 Evaluate cost estimations and initiate appropriate solutions	UEECO0001 Estimate electrotechnology projects
UETDRSO014 Coordinate operations in a regulated energy market	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
UETDRTS033 Commission and maintain network protection and control systems	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UETDRTS036 Develop secondary protection and control scheme isolation and restoration documents</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UEECD0019 Fabricate, assemble and dismantle utilities industry components</p>

	<p>UEECD0010 Compile and produce an energy sector detailed report</p> <p>UETDREL005 Work safely in the vicinity of live electrical apparatus</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
UETDRDS028 Prepare and manage construction plans for electrical infrastructure	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UETDREL005 Work safely in the vicinity of live electrical apparatus</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
UETDRDS021 Design public lighting systems	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p>

	<p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UETDREL005 Work safely in the vicinity of live electrical apparatus</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
UETDRDS017 Design customer substations	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UETDREL005 Work safely in the vicinity of live electrical apparatus</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
UETDRIS032 Solve problems in network equipment	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p>

	<p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UEECD0019 Fabricate, assemble and dismantle utilities industry components</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
<p>UETDRSO012 Coordinate and manage distribution and sub-transmission network access and activities</p>	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UETDRSO020 Operate SCADA equipment</p> <p>UETDRSO016 Develop and validate low voltage switching programs</p> <p>UETDRSO015 Develop high voltage distribution and sub-transmission switching programs</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
<p>UETDRDS026 Draft and layout underground distribution extension</p>	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p>

	<p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UETDREL005 Work safely in the vicinity of live electrical apparatus</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
<p>UEECD0030 Prepare electrotechnology/utilities drawings using manual drafting and CAD equipment and software</p>	<p>UEECD0031 Prepare engineering drawings using manual drafting and CAD for electrotechnology applications</p> <p>UEECD0043 Solve problems in direct current circuits</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UEECD0019 Fabricate, assemble and dismantle utilities industry components</p> <p>UEECS0033 Use engineering applications software on personal computers</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
<p>UEECD0044 Solve problems in multiple path circuits</p>	<p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p>

	UEECD0046 Solve problems in single path circuits
UETDRTS030 Commission and maintain complex energy/revenue metering schemes	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UETDRTS031 Commission energy/revenue metering schemes</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UETDRTS036 Develop secondary protection and control scheme isolation and restoration documents</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UEECD0019 Fabricate, assemble and dismantle utilities industry components</p> <p>UEECD0010 Compile and produce an energy sector detailed report</p> <p>UETDREL005 Work safely in the vicinity of live electrical apparatus</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
UEEIC0012 Develop structured programs to control external devices	UEECD0007 Apply work health and safety regulations, codes and practices in the workplace

UETDRSO015 Develop and validate distribution and sub-transmission switching programs	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
UETDRSO019 Manage supply and demand in distribution and sub-transmission networks	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UETDRSO020 Operate SCADA equipment</p> <p>UETDRSO012 Coordinate and manage distribution and sub-transmission network access and activities</p> <p>UETDRSO015 Develop high voltage distribution and sub-transmission switching programs</p>

	UEECD0044 Solve problems in multiple path circuits
UETDRDS016 Coordinate and perform line and easement surveys	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UETDRDS028 Prepare and manage construction plans for electrical infrastructure</p> <p>UETDREL005 Work safely in the vicinity of live electrical apparatus</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
UETDRTS029 Commission and maintain communication equipment	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p>

	<p>UETDRTS036 Develop secondary protection and control scheme isolation and restoration documents</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UEECD0019 Fabricate, assemble and dismantle utilities industry components</p> <p>UEECD0010 Compile and produce an energy sector detailed report</p> <p>UETDREL005 Work safely in the vicinity of live electrical apparatus</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
<p>UETDRTS037 Maintain and calibrate protection relays and meters</p>	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UETDRTS036 Develop secondary protection and control scheme isolation and restoration documents</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UEECD0019 Fabricate, assemble and dismantle utilities industry components</p> <p>UEECD0010 Compile and produce an energy sector detailed report</p> <p>UETDREL005 Work safely in the vicinity of live electrical apparatus</p>

	UEECD0044 Solve problems in multiple path circuits
UETDRSO016 Develop and validate low voltage switching programs	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications</p> <p>UEEEL0020 Solve problems in low voltage a.c. circuits</p> <p>UEECD0044 Solve problems in multiple path circuits</p>
UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications	UEECD0007 Apply work health and safety regulations, codes and practices in the workplace
UEEEL0020 Solve problems in low voltage a.c. circuits	<p>UEEEL0021 Solve problems in magnetic and electromagnetic devices</p> <p>UEECD0043 Solve problems in direct current circuits</p> <p>UEECD0007 Apply work health and safety regulations, codes and practices in the workplace</p> <p>UEECD0046 Solve problems in single path circuits</p> <p>UEECD0044 Solve problems in multiple path circuits</p>

Qualification Mapping Information

Current Code and Title	Previous Code and Title	Comments	Equivalence
UET60222 Advanced Diploma of ESI - Power Systems	UET60221 Advanced Diploma of ESI - Power Systems		Not-Equivalent

Links

Companion volumes, including implementation guides, are found in TGA -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=229bace1-b7bc-4653-9300-dff13ecfad7>