



Australian Government

UET30821 Certificate III in ESI - Distribution Underground

Release 1

UET30821 Certificate III in ESI - Distribution Underground

Modification History

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 Distribution Underground Cable Joiner.

This qualification covers the installation and maintenance of low voltage (LV) and high voltage (HV) underground cables, services and electrical equipment.

The application of the skills and knowledge described within the units in this qualification may require a licence/registration to practice in the workplace.

Other conditions may also apply under state and territory legislative and regulatory licensing requirements which must be confirmed prior to commencing this qualification.

Entry Requirements

There are no entry requirements for this qualification

Packaging Rules

A total of **23 units** comprising:

- **18 core units** listed below; plus
- **5 elective units**

The elective units are to be chosen as follows:

- **3 elective units** selected from Group A listed below
- **2 elective units** may be selected from Group A or Group B elective units listed below, of which, 1 elective unit may be selected, with appropriate contextualisation, from a qualification in this or any other 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.

Where a prerequisite is attached to a unit it is identified by the symbol \perp .

Core units

CPCCLDG3001	Licence to perform dogging
TLILIC0005	Licence to operate a boom-type elevating work platform (boom length 11 metres or more)
UEECD0007	Apply work health and safety regulations, codes and practices in the workplace
UEECD0019	Fabricate, assemble and dismantle utilities industry components └ UEECD0007 Apply work health and safety regulations, codes and practices in the workplace
UEECD0044	Solve problems in multiple path circuits └ UEECD0007 Apply work health and safety regulations, codes and practices in the workplace └ UEECD0046 Solve problems in single path circuits
UEECD0046	Solve problems in single path circuits └ UEECD0007 Apply work health and safety regulations, codes and practices in the workplace
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 └ UEECD0007 Apply work health and safety regulations, codes and practices in the workplace └ UEEEL0021 Solve problems in magnetic and electromagnetic devices and └ UEECD0043 Solve problems in direct current circuits or └ UEECD0044 Solve problems in multiple path circuits └ UEECD0046 Solve problems in single path circuits
UEEEL0021	Solve problems in magnetic and electromagnetic devices └ UEECD0007 Apply work health and safety regulations, codes and practices in the workplace and └ UEECD0043 Solve problems in direct current circuits or

- └ UEECD0044 Solve problems in multiple path circuits
- └ UEECD0046 Solve problems in single path circuits
- UETDRDU002 Inspect underground electrical apparatus
 - └ UEECD0007 Apply work health and safety regulations, codes and practices in the workplace
 - and
 - └ UETDREL006 Work safely in the vicinity of live electrical apparatus as a non-electrical worker
 - or
 - └ UETDREL005 Work safely in the vicinity of live electrical apparatus
- UETDRDU009 Install, test and verify distribution underground cable installations
 - └ CPCCLDG3001 Licence to perform dogging
 - └ TLILIC0005 Licence to operate a boom-type elevating work platform (boom length 11 metres or more)
 - └ UEECD0007 Apply work health and safety regulations, codes and practices in the workplace
 - └ UEECD0019 Fabricate, assemble and dismantle utilities industry components
 - └ 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
 - └ UETDRDU002 Inspect underground electrical apparatus
 - └ UETDRDU013 Joint, terminate and maintain high voltage underground polymeric cable
 - └ UETDRDU015 Joint, terminate and maintain low voltage underground polymeric cable
 - └ UETDREL001 Apply environmental requirements
 - └ UETDREL004 Operate plant and equipment in the vicinity of live electrical apparatus
 - └ UETDREL005 Work safely in the vicinity of live electrical apparatus
 - └ UETDRIS008 Install and maintain electrical apparatus
 - └ UETDRIS011 Install and maintain low voltage underground services

UETDRDU013	Joint, terminate and maintain high voltage underground polymeric cable <ul style="list-style-type: none">└ UEECD0007 Apply work health and safety regulations, codes and practices in the workplace└ UEECD0019 Fabricate, assemble and dismantle utilities industry components└ 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└ UETDREL001 Apply environmental requirements└ UETDREL005 Work safely in the vicinity of live electrical apparatus
UETDRDU015	Joint, terminate and maintain low voltage underground polymeric cable <ul style="list-style-type: none">└ UEECD0007 Apply work health and safety regulations, codes and practices in the workplace└ UEECD0019 Fabricate, assemble and dismantle utilities industry components└ 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└ UETDREL001 Apply environmental requirements└ UETDREL005 Work safely in the vicinity of live electrical apparatus
UETDREL001	Apply environmental requirements
UETDREL004	Operate plant and equipment in the vicinity of live electrical apparatus <ul style="list-style-type: none">└ UEECD0007 Apply work health and safety regulations, codes and practices in the workplace
UETDREL005	Work safely in the vicinity of live electrical apparatus <ul style="list-style-type: none">└ UEECD0007 Apply work health and safety regulations, codes and practices in the workplace
UETDRIS008	Install and maintain electrical apparatus

- └ UEECD0007 Apply work health and safety regulations, codes and practices in the workplace
- └ UEECD0019 Fabricate, assemble and dismantle utilities industry components
- └ 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
- └ UETDREL001 Apply environmental requirements
- └ UETDREL004 Operate plant and equipment in the vicinity of live electrical apparatus
- └ UETDREL005 Work safely in the vicinity of live electrical apparatus and
- └ UETDRDU013 Joint, terminate and maintain high voltage underground polymeric cable
- └ UETDRDU015 Joint, terminate and maintain low voltage underground polymeric cable
- or
- └ UETDRIS007 Install and maintain distribution overhead conductors and cables
- └ UETDRIS012 Install and maintain poles, structures and hardware

UETDRIS011

- Install and maintain low voltage underground services
- └ UEECD0007 Apply work health and safety regulations, codes and practices in the workplace
 - └ UEECD0019 Fabricate, assemble and dismantle utilities industry components
 - └ 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
 - └ UETDREL001 Apply environmental requirements
 - └ UETDREL005 Work safely in the vicinity of live electrical apparatus

Group A

- UETDRDU007 Install and maintain underground public lighting
- └ UEECD0007 Apply work health and safety regulations, codes and practices in the workplace
 - └ UEECD0019 Fabricate, assemble and dismantle utilities industry components
 - └ 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
 - └ UETDREL001 Apply environmental requirements
 - └ UETDREL004 Operate plant and equipment in the vicinity of live electrical apparatus
 - └ UETDREL005 Work safely in the vicinity of live electrical apparatus
- UETDRDU010 Joint, terminate and maintain energised low voltage underground paper insulated cable
- └ UEECD0007 Apply work health and safety regulations, codes and practices in the workplace
 - └ UEECD0019 Fabricate, assemble and dismantle utilities industry components
 - └ 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
 - └ UETDRDU014 Joint, terminate and maintain low voltage underground paper insulated cable
 - └ UETDREL001 Apply environmental requirements
 - └ UETDREL005 Work safely in the vicinity of live electrical apparatus
- UETDRDU011 Joint, terminate and maintain energised low voltage underground polymeric cable
- └ UEECD0007 Apply work health and safety regulations, codes and

- practices in the workplace
- └ UEECD0019 Fabricate, assemble and dismantle utilities industry components
 - └ 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
 - └ UETDRDU015 Joint, terminate and maintain low voltage underground polymeric cable
 - └ UETDREL001 Apply environmental requirements
 - └ UETDREL005 Work safely in the vicinity of live electrical apparatus
- UETDRDU012 Joint, terminate and maintain high voltage underground paper insulated cable
- └ UEECD0007 Apply work health and safety regulations, codes and practices in the workplace
 - └ UEECD0019 Fabricate, assemble and dismantle utilities industry components
 - └ 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
 - └ UETDREL001 Apply environmental requirements
 - └ UETDREL005 Work safely in the vicinity of live electrical apparatus
- UETDRDU014 Joint, terminate and maintain low voltage underground paper insulated cable
- └ UEECD0007 Apply work health and safety regulations, codes and practices in the workplace
 - └ UEECD0019 Fabricate, assemble and dismantle utilities industry components
 - └ 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
 - └ UETDREL001 Apply environmental requirements
 - └ UETDREL005 Work safely in the vicinity of live electrical apparatus
- UETDRDU016 Lay power cables
- UETDRDU019 Transition joint high voltage paper insulated cable to high voltage polymeric cable
- └ UEECD0007 Apply work health and safety regulations, codes and practices in the workplace
 - └ UEECD0019 Fabricate, assemble and dismantle utilities industry components
 - └ 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
 - └ UETDRDU013 Joint, terminate and maintain high voltage underground polymeric cable
 - └ UETDREL001 Apply environmental requirements
 - └ UETDREL005 Work safely in the vicinity of live electrical apparatus

Group B

- UETDRDU001 Conduct high voltage testing of underground power cable system
- └ 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
 - └ UETDREL005 Work safely in the vicinity of live electrical apparatus
- UETDRDU017 Locate faults in underground power cables
- └ 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
- └ UETDREL005 Work safely in the vicinity of live electrical apparatus

UETDREL003 Identify and apply controls for alternate supplies on the distribution network

- └ 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
- └ UETDREL001 Apply environmental requirements
- └ UETDREL005 Work safely in the vicinity of live electrical apparatus
- └ UETDRIS018 Perform low voltage field switching operation to a given schedule

UETDRIS003 Develop high voltage switching schedule

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
- └ UEENEEG101A Solve problems in electromagnetic devices and related circuits
- └ UEENEEG102A Solve problems in low voltage a.c. circuits
- └ UETDREL005 Work safely in the vicinity of live electrical apparatus
- └ UETDRIS017 Perform high voltage field switching operation to a given schedule

Transmission Overhead Pathway Group

- └ UETDREL001 Apply environmental requirements
- └ UETDREL004 Operate plant and equipment in the vicinity of live electrical apparatus
- └ UETDRIS007 Install and maintain distribution overhead conductors and cables
- └ UETDRTO006 Install and maintain transmission conductors
- └ UETDRTO007 Install and maintain transmission structures and hardware

Distribution Overhead Pathway Group

- └ UETDRDO005 Maintain overhead energised low voltage distribution network
- └ UETDREL001 Apply environmental requirements
- └ UETDREL004 Operate plant and equipment in the vicinity of live electrical apparatus
- └ UETDRIS007 Install and maintain distribution overhead conductors and cables
- └ UETDRIS008 Install and maintain electrical apparatus
- └ UETDRIS010 Install and maintain low voltage overhead services
- └ UETDRIS012 Install and maintain poles, structures and hardware

Rail Traction Pathway Group

- └ UETDREL001 Apply environmental requirements
- └ UETDREL004 Operate plant and equipment in the vicinity of live electrical apparatus
- └ UETDRIS007 Install and maintain distribution overhead conductors and cables
- └ UETDRIS012 Install and maintain poles, structures and hardware
- └ UETDRRT002 Install overhead traction components and equipment
- └ UETDRRT003 Install rail traction bonds
- └ UETDRRT004 Install traction overhead wiring systems
- └ UETDRRT009 Maintain overhead traction components and equipment
- └ UETDRRT011 Maintain traction overhead wiring systems

Distribution Cable Jointing Pathway Group

- └ UETDRDU013 Joint, terminate and maintain high voltage underground polymeric cable
- └ UETDRDU015 Joint, terminate and maintain low voltage underground polymeric cable

└ UETDRDU016 Lay power cables

└ UETDREL001 Apply environmental requirements

└ UETDREL004 Operate plant and equipment in the vicinity of live electrical apparatus

└ UETDRIS008 Install and maintain electrical apparatus

└ UETDRIS011 Install and maintain low voltage underground services

Electrical Pathway Group

└ UEENEEE137A Document and apply measures to control OHS risks associated with electrotechnology work

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

└ UEENEEG033A Solve problems in single and three phase low voltage electrical apparatus and circuits

└ UEENEEG063A Arrange circuits, control and protection for general electrical installations

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

└ UEENEEG108A Trouble-shoot and repair faults in low voltage electrical apparatus and circuits

└ UEENEEG109A Develop and connect electrical control circuits

└ UEENEEK142A Apply environmentally and sustainable procedures in the energy sector

└ UETTDRIS67 Solve problems in energy supply network equipment

UETDRIS004 Develop low voltage switching schedule

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

└ UEENEEG101A Solve problems in electromagnetic devices and related circuits

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

└ UETDREL005 Work safely in the vicinity of live electrical apparatus

└ UETDRIS018 Perform low voltage field switching operation to a given

schedule

Transmission Overhead Pathway Group

- └ UETDREL001 Apply environmental requirements
- └ UETDREL004 Operate plant and equipment in the vicinity of live electrical apparatus
- └ UETDRIS007 Install and maintain distribution overhead conductors and cables
- └ UETDRTO006 Install and maintain transmission conductors
- └ UETDRTO007 Install and maintain transmission structures and hardware

Distribution Overhead Pathway Group

- └ UETDRDO005 Maintain overhead energised low voltage distribution network
- └ UETDREL001 Apply environmental requirements
- └ UETDREL004 Operate plant and equipment in the vicinity of live electrical apparatus
- └ UETDRIS007 Install and maintain distribution overhead conductors and cables
- └ UETDRIS008 Install and maintain electrical apparatus
- └ UETDRIS010 Install and maintain low voltage overhead services
- └ UETDRIS012 Install and maintain poles, structures and hardware

Rail Traction Pathway Group

- └ UETDREL001 Apply environmental requirements
- └ UETDREL004 Operate plant and equipment in the vicinity of live electrical apparatus
- └ UETDRIS007 Install and maintain distribution overhead conductors and cables
- └ UETDRIS012 Install and maintain poles, structures and hardware
- └ UETDRRT002 Install overhead traction components and equipment
- └ UETDRRT003 Install rail traction bonds
- └ UETDRRT004 Install traction overhead wiring systems
- └ UETDRRT009 Maintain overhead traction components and equipment
- └ UETDRRT011 Maintain traction overhead wiring systems

Distribution Cable Jointing Pathway Group

- └ UETDRDU013 Joint, terminate and maintain high voltage underground polymeric cable
- └ UETDRDU015 Joint, terminate and maintain low voltage underground

polymeric cable

└ UETDRDU016 Lay power cables

└ UETDREL001 Apply environmental requirements

└ UETDREL004 Operate plant and equipment in the vicinity of live electrical apparatus

└ UETDRIS008 Install and maintain electrical apparatus

└ UETDRIS011 Install and maintain low voltage underground services

Electrical Pathway Group

└ UEENEEE137A Document and apply measures to control OHS risks associated with electrotechnology work

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

└ UEENEEG033A Solve problems in single and three phase low voltage electrical apparatus and circuits

└ UEENEEG063A Arrange circuits, control and protection for general electrical installations

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

└ UEENEEG108A Trouble-shoot and repair faults in low voltage electrical apparatus and circuits

└ UEENEEG109A Develop and connect electrical control circuits

└ UEENEEK142A Apply environmentally and sustainable procedures in the energy sector

└ UETTDRI67 Solve problems in energy supply network equipment

UETDRIS014 Install and replace energy meters and associated equipment

└ UEECD0007 Apply work health and safety regulations, codes and practices in the workplace

└ UEECD0019 Fabricate, assemble and dismantle utilities industry components

└ UEECD0044 Solve problems in multiple path circuits

└ UEECD0046 Solve problems in single path circuits

└ UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications

└ UEEL0020 Solve problems in low voltage a.c. circuits

└ UEEL0021 Solve problems in magnetic and electromagnetic devices

└ UETDREL001 Apply environmental requirements

- UETDRIS015 Install low voltage mobile generator
- └ 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
 - └ UETDREL001 Apply environmental requirements
 - └ UETDREL005 Work safely in the vicinity of live electrical apparatus
- UETDRIS017 Perform high voltage field switching operation to a given schedule
- └ 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
 - └ UETDREL001 Apply environmental requirements
 - └ UETDREL004 Operate plant and equipment in the vicinity of live electrical apparatus
 - └ UETDREL005 Work safely in the vicinity of live electrical apparatus
 - └ UETDRIS018 Perform low voltage field switching operation to a given schedule
- UETDRIS018 Perform low voltage field switching operation to a given schedule
- └ 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

- └ UETDREL001 Apply environmental requirements
- └ UETDREL005 Work safely in the vicinity of live electrical apparatus

UETDRSB001 Perform substation switching operations to a given schedule

Qualification Mapping Information

This qualification replaces and is equivalent to UET30819 Certificate III in ESI - Power Systems - Distribution Cable Jointing

Links

Companion Volume Implementation Guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=229bace1-b7bc-4653-9300-dffb13ecfad7>