



Australian Government

UETTDNIS58 Locate faults in power system underground power cables

Release: 1

UETTDRI58 Locate faults in power system underground power cables

Modification History

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

Application

This unit involves the skills and knowledge required to locate faults in power system underground power cables in the electricity supply industry (ESI).

It includes diagnosis and detecting the location of faults in underground power cables. It includes obtaining the required access to test or equivalent permit, setting up the fault location test equipment and following the procedure to carry out the cable fault location test plan.

It also includes interpreting test results, documenting the fault location and likely cause, and listing recommendations for correcting the cable fault to meet client requirements.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

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

UETTDRCJ21 Lay ESI electrical cables

UETTDRCJ26 Install and maintain de-energised low voltage underground polymeric cables

UETTDRCJ27 Install and maintain de-energised high voltage underground polymeric cables

UETTDREL11 Apply sustainable energy and environmental procedures

UETTDREL12 Operate plant and equipment near live electrical conductors and apparatus

UETTDREL16 Working safely near live electrical apparatus

UETTDRI541 Install network infrastructure electrical equipment

UETTDRIS42 Maintain network infrastructure electrical equipment

UETTDRIS55 Install and maintain low voltage underground services

Competency Field

Industry Specific Cross Discipline

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1 Prepare to locate faults in underground power cables	1.1 Work schedules, including cable specifications and standards, cable route data, history, characteristics, drawings, plans, requirements, workplace procedures and material lists, are received and confirmed
	1.2 Job requirements and workplace procedures are identified and communicated with relevant personnel
	1.3 Work health and safety (WHS)/occupational health and safety (OHS) workplace procedures for locating faults in underground power cables are obtained and confirmed for the purposes of the work to be performed
	1.4 Work is prioritised and sequenced for completion within acceptable timeframes following consultation with relevant personnel and in accordance with workplace procedures
	1.5 Hazards are identified, WHS/OHS risks assessed and control measures identified in accordance with workplace procedures
	1.6 Relevant work permits are obtained, understood and signed in accordance with workplace procedures
	1.7 Equipment, tools and personal protective equipment required (PPE) for work are identified, obtained and confirmed in working order

- 1.8** Test equipment is assembled and checked for calibration status in accordance with workplace procedures
 - 1.9** Cable fault location test procedures/plans are prepared and range of tests required is determined in accordance with job requirements and workplace procedures
 - 1.10** Worksite is prepared to minimise risk, damage to property, commerce and individuals in accordance with workplace procedures
 - 1.11** Traffic management plan is confirmed as being applied in accordance with workplace procedures
- 2 Carry out location of faults in underground power cables**
 - 2.1** WHS/OHS, sustainable energy and environmental principles and practices are monitored and followed to reduce incidents of accidents in accordance with workplace procedures
 - 2.2** Requirements for lifting, climbing, working at heights and use of power tools/equipment are followed in accordance with workplace procedures
 - 2.3** Locating faults in underground power cables is performed in agreed timeframes, to quality standards and with a minimum of waste in accordance with workplace procedures
 - 2.4** Cable is tested to determine location relevant faults in accordance with job requirements and workplace procedures
 - 2.5** Unplanned events in the location of faults in underground power cables are responded to in accordance with workplace procedures
 - 2.6** Quality checks of work are undertaken in accordance with workplace procedures
- 3 Complete location of faults in underground power cables**
 - 3.1** Completed work is checked against work schedule, construction plans and drawings for compliance and anomalies are reported in accordance with workplace procedures
 - 3.2** WHS/OHS and environmental incidents are reported in accordance with workplace procedures, as required
 - 3.3** Worksite is cleaned and made safe in accordance with workplace procedures

- 3.4 Tools, equipment and surplus resources and materials are cleaned, checked and returned to storage in accordance with workplace procedures
- 3.5 Relevant work permits are signed off and cable/site is returned to service in accordance with workplace procedures
- 3.6 Work records, reports and/or documentation are completed in accordance with workplace procedures

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UETTDRIS58A Locate faults in power system underground power cables.

Links

UET Training Package Companion Volume Implementation Guide is found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=229bace1-b7bc-4653-9300-dffb13ecfad7>