



Australian Government

UETDRDO002 Inspect, maintain and restore energised low voltage overhead distribution network infrastructure

Release: 1

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Modification History

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

Application

This unit covers the inspection of overhead structures, such as poles and/or other structures other than towers, and the maintenance of overhead energised low voltage (LV) conductors and cables. It includes the conducting of LV switching operations involving the operation of circuit breaking and isolation devices from a given switching schedule in accordance with enterprise procedures. It covers LV distribution systems in field situations but also includes paralleling in accordance with the switching schedule.

It also includes inspection of electrical apparatus, such as overhead conductors and/or cables, underground and overhead transition points, electrical equipment, such as pole-mounted transformers, switchgear, hardware and/or earthing systems. It encompasses the completion of inspection reports and other relevant documentation in accordance with requirements.

The application of the skills and knowledge described in this unit requires a licence/registration to practice in the workplace subject to regulations for undertaking of electrical work.

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

Pre-requisite Unit

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

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

UEENEEG101A Solve problems in electromagnetic devices and related circuits

UEENEEG102A Solve problems in low voltage a.c. circuits

UEENEEG103A Install low voltage wiring and accessories

UEENEEG104A Install appliances, switchgear and associated accessories for low voltage electrical installations

UEENEEG105A Verify compliance and functionality of low voltage general electrical installations

UEENEEG106A Terminate cables, cords and accessories for low voltage circuits

UEENEEG107A Select wiring systems and cables for low voltage general electrical installations

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

UETDREL005 Work safely in the vicinity of live electrical apparatus

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

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

UETDRIS009 Install and maintain ESI network infrastructure electrical equipment

UETTDRIS67 Solve problems in energy supply network equipment

Competency Field

Distribution Overhead

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare for the inspection, maintenance and restoration of overhead distribution network

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1.1 Work schedules, including drawings, plans, requirements, established procedures and material lists, are received, analysed and confirmed, as necessary, by site inspection

infrastructure

- 1.2** Relevant requirements and established procedures for the work are communicated to all personnel and identified for all worksites
- 1.3** Work health and safety (WHS)/occupational health and safety (OHS) policies and procedures related to requirements and established procedures for the inspection of overhead structures and electrical apparatus used on poles and/or structures, the maintenance of overhead energised LV conductors and cables and LV switching, are obtained and confirmed for the purposes of the work to be performed and communicated
- 1.4** Physical loads and calculations are confirmed according to requirements using essential knowledge and appropriate skill
- 1.5** Work is prioritised and sequenced following consultation with others for completion within acceptable timeframes and in accordance with established procedures
- 1.6** Hazards are identified, WHS/OHS risks assessed and control measures prioritised, implemented and monitored, including emergency exits kept clear according to established procedures
- 1.7** Relevant work permits are obtained to access and perform work according to requirements and/or established procedures
- 1.8** Resources, including personnel, equipment, tools and personal protective equipment (PPE), required for the job are obtained and confirmed in working order
- 1.9** Specialist equipment for live work is inspected and confirmed in working order in accordance with requirements and established procedures
- 1.10** Relevant personnel at worksite are confirmed current in first aid, pole top rescue and other related work procedures according to requirements
- 1.11** Liaison and communication issues with other/authorised personnel, authorities, clients and landowners are resolved to carry out work where necessary

- 1.12 Site is prepared according to the work schedule and to minimise risk and damage to property, commerce and individuals in accordance with established procedures
 - 1.13 Personnel participating in the work, including plant operators and contractors, are fully briefed and respective responsibilities confirmed, where applicable, in accordance with established procedures
 - 1.14 Traffic management plan is identified and implemented
- 2 **Carry out inspection, maintenance and restoration of overhead distribution network infrastructure**
 - 2.1 WHS/OHS, sustainable energy and environmental principles and practices to reduce the incidents of accidents and minimise waste are monitored and followed in accordance with requirements and/or established procedures
 - 2.2 Lifting, climbing, working in confined spaces and aloft, and use of power tools/equipment, techniques and practices are safely followed, and currency according to requirements is confirmed
 - 2.3 Essential knowledge and associated skills are applied in the safe maintenance and restoration of overhead distribution network infrastructure to ensure completion in an agreed timeframe and to quality standards with a minimum of waste according to requirements
 - 2.4 Inspection of overhead structures and electrical apparatus used on poles and/or structures is carried out in accordance with the work schedule and requirements/established procedures
 - 2.5 Maintenance, including repair and/or replacement of poles and/or structures, is carried out in accordance with the work schedule and requirements/established procedures
 - 2.6 Communications with Switching Control Officer are established and maintained throughout the isolation operation according to established procedures
 - 2.7 Electrical equipment and associated circuits line/network or worksite to be switched, including paralleling, is isolated and proved de-energised using appropriate devices and earthed, where required, according to requirements and established procedures
 - 2.8 Hazard warnings and safety signs are recognised and

hazards and assessed WHS/OHS risks are reported to the immediate authorised persons for directions according to established procedures

2.9 Unplanned events during the inspection, maintenance or switching procedures are undertaken within the scope of established procedures

2.10 Known solutions to a variety of problems are applied using acquired essential knowledge and associated skills

2.11 Ongoing checks of quality of the work are undertaken in accordance with instructions and established procedures

3 Complete the inspection, maintenance and restoration of overhead distribution network infrastructure

3.1 Work undertaken is checked against works schedule for conformance with requirements and anomalies reported in accordance with established procedures

3.2 Accidents and/or injuries are reported in accordance with requirements/established procedures, where applicable

3.3 Worksite is rehabilitated, cleaned up and made safe in accordance with established procedures

3.4 Tools, equipment and any surplus resources and materials are, where appropriate, cleaned, checked and returned to storage or disposed of in accordance with established procedures

3.5 Relevant work permits are signed off and overhead structures and electrical apparatus used on poles and/or structures are returned to service in accordance with requirements

3.6 Work completion records, reports, as installed/modified drawing and/or documentation and information are finalised and processed and appropriate personnel notified

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 UET Transmission, Distribution and Rail Sector Training Package Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UETTDRDP15 Inspect, maintain and restore energised low voltage overhead distribution network infrastructure.

Links

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