



Australian Government

UETTD RDP12 Maintain overhead energised low voltage conductors and cables

Release: 1

UETTDRDP12 Maintain overhead energised low voltage conductors and 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 maintain overhead energised low voltage (LV) conductors and cables in the electricity supply industry (ESI).

It includes verification of site conditions and potential hazards, selecting appropriate and authorised work methods using specialised equipment and the diagnosis of faults. It also includes undertaking electrical tests and updating system data/maintenance records.

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

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

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

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

UETTDRIS52 Install and maintain poles, structures and associated hardware

UETTDRIS54 Install and maintain poles, structures and overhead conductors and cables

Competency Field

Distribution

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare for maintenance of overhead energised LV conductors and cables

PERFORMANCE CRITERIA

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

- 1.1** Work plan, construction plans, drawings, workplace procedures and material lists are received, confirmed and communicated with relevant personnel
- 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), environmental and workplace procedures for the maintenance of overhead energised LV conductors and cables are obtained and confirmed for the purposes of the work to be performed
- 1.4** Physical loads and calculations are confirmed in accordance with workplace procedures
- 1.5** Work is prioritised and sequenced for completion within acceptable timeframes following consultation with relevant personnel and in accordance with workplace procedures
- 1.6** Hazards are identified, WHS/OHS risks assessed and control measures identified in accordance with workplace procedures
- 1.7** Relevant work permits are obtained, understood and signed in accordance with workplace procedures
- 1.8** Plant, equipment, tools and personal protective equipment (PPE) required for work are identified, obtained and confirmed in working order

- 1.9 Specialist equipment for live work is inspected and confirmed in working order in accordance with 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 **Conduct maintenance of overhead energised LV conductors and cables**
 - 2.1 WHS/OHS, sustainable energy and environmental principles and practices are monitored and followed to reduce incidents in accordance with workplace procedures
 - 2.2 Requirements for lifting and/or climbing and/or working at heights and the use of power tools/equipment are followed in accordance with workplace procedures
 - 2.3 Overhead energised LV conductors and cables are maintained in agreed timeframes, to quality standards and with a minimum of waste in accordance with workplace procedures
 - 2.4 Maintenance, repair and/or replacement of poles and/or structures is performed in accordance with job schedule, work requirements and workplace procedures
 - 2.5 Unplanned events in the maintenance of overhead energised LV conductors and cab are responded to in accordance with workplace procedures
 - 2.6 Quality checks of work are undertaken in accordance with workplace procedures
- 3 **Complete maintenance of overhead energised LV conductors and cables**
 - 3.1 Completed work is checked against work plan, 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 rehabilitated, cleaned up and made safe in accordance with workplace procedures
 - 3.4 Tools, equipment and surplus resources are, where appropriate, cleaned, checked and returned to storage in

accordance with workplace procedures

- 3.5 Relevant work permits are signed off and overhead energised LV conductors and cables are 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 UETTDRDP12A Maintain overhead energised low voltage conductors and 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>

Assessment Requirements for UETTDRDP12 Maintain overhead energised low voltage conductors and cables

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least two separate occasions and include:

- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including the use of risk control measures
- applying sustainable energy principles and practices
- maintaining energised overhead low voltage (LV) conductors and cables on at least two (2) of the following:
 - copper
 - aluminium
 - aluminium/steel reinforced
 - steel
 - pilot
- performing work on energised overhead LV conductors and cables from at least two (2) of the following:
 - elevated work platform (EWP)
 - ladder
 - portable platform
- using specialist live working equipment, including all of the following:
 - insulating mats/sleeves
 - temporary bridging device
 - insulating gloves
 - insulated cable tensioning devices
 - ladder/pole shrouds
 - equipotential bonding
- using specialist testing equipment, including at least three (3) of the following:
 - voltage detector*
 - clamp-on ammeter
 - polarity tester
 - insulation resistance tester

- phase sequence indicator
- recording meters
- (*must do)
- dealing with unplanned events on at least one (1) occasion.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- standards, codes, Commonwealth/state/territory/local government legislation, supply authority regulations and/or enterprise requirements
- safety precautions specific to working on or near energised LV conductors, including:
 - safe working practices and procedures
 - identification of hazards, assessment and control of WHS/OHS risks
 - types, selection, maintenance and use of personal protective equipment (PPE)
- work on or near energised LV conductors, including:
 - types and function of specialised tools
 - safe working practices when using specialised tools
 - methods of using specialised tools.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated conditions involving realistic and authentic activities that replicate operational workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, facilities, equipment and PPE currently used in industry for maintaining overhead energised LV conductors and cables
- applicable documentation, including workplace procedures, relevant industry standards, equipment specifications, regulations, codes of practice and operation manuals

Links

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