



Australian Government

Assessment Requirements for UETDRIS010 Install and maintain low voltage overhead services

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.

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 legislation, regulations, standards, codes of practice and organisational and workplace requirements, including:
 - work health and safety (WHS)/occupational health and safety (OHS)
 - network standards
- identifying hazards, assessing risks, identifying, applying and monitoring control measures
- obtaining, inspecting and using relevant personal protective equipment (PPE)
- preparing worksite, including:
 - identifying common pole markings i.e., condemned poles
 - conducting safe to approach tests as required
 - assessing network assets for pre-climbing (poles)
 - identifying potential secondary points of contact
- determining communication method with safety observer
- confirming safety observer is in position in accordance with workplace requirements
- applying energised/live low voltage (LV) working requirements and procedures in accordance with workplace requirements
- stringing and connecting low voltage (LV) overhead service cables, including at least two (2) of the following:
 - three phase
 - single phase
 - two phase
- installing LV overhead service protection devices, including at least one (1) of the following:
 - service fuse
 - circuit breakers (pole)
 - service link
- using at least three (3) of the following specialised energised LV equipment:
 - insulating gloves*
 - insulating mats/sleeves/tubes*

- tensioning devices
- insulated tools
- pole shrouds
- (*must do)
- performing at least five (5) of the following LV overhead service tests:
 - neutral integrity*
 - polarity*
 - voltage
 - current
 - phase rotation
 - insulation resistance
 - neutral identification
 - loop impedance
 - earth resistance
 - (*must do)
- recording test results in accordance with workplace requirements
- dealing with an unplanned event on at least one (1) occasion
- completing relevant work records, reports and documentation.

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:

- relevant legislation, regulations, standards, codes of practice and organisational workplace requirements, including:
 - WHS/OHS
 - safe approach distances
- hazard, risk assessment and risk control requirements, including potential hazards
- types and application of PPE
- safe use of plant, tools and specialised equipment
- events constituting an unplanned event or incident
- procedures for responding to an unplanned event or incident
- identification and control methods of secondary points of contact
- types and application of specialised energised LV equipment, including:
 - insulating gloves
 - insulating mats/sleeves/tubes
 - tensioning devices
 - insulated tools
 - pole shrouds
- safety observer:

- role and responsibilities
- communication methods
- construction manuals, system diagrams/plans and drawings, including:
 - minimum clearances for overhead services to assets and structures
 - ground clearances for overhead services
 - customer poles
 - network standards
- types, characteristics and applications of service cables, including:
 - cable cross-sectional area of conductors
 - current rating and fuse types and ratings
 - maximum span lengths and tensions for overhead services
- stringing and terminating methods
- connection of overhead services, including:
 - types of overhead service connections
 - live LV work principles and procedures
 - LV distribution mains protection systems
 - purpose and function of the multiple earth neutral (MEN) system
 - causes and effects of connection faults
 - standard phase sequencing
 - purpose and operation of service fusing
- procedures for maintenance of overhead service installations, including:
 - diagnosis and rectification of faults
 - removing, repairing and replacing damaged overhead services
 - removing and replacing service protection devices
- testing and commissioning overhead services, including:
 - pre-energising tests - insulation resistance and continuity test
 - inspection
 - test equipment functionality and interpretation
 - principles of loop impedance
 - polarity, voltage and phase sequence tests
 - neutral and phase identification tests
 - neutral integrity tests
 - use of independent earth
 - recording results.

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:

- relevant and appropriate materials, tools, facilities, equipment and PPE currently used in industry for installing and maintaining LV overhead services
- applicable documentation, including workplace requirements, relevant industry standards, equipment specifications, regulations, codes of practice and operation manuals.

Links

Companion Volume Implementation Guides are found in VETNet -

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