



Australian Government

Assessment Requirements for UETTD RIS56 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.

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
- connecting low voltage (LV) overhead service cables, including at least two (2) of the following:
 - overhead service line (three phase) *
 - overhead service line (single phase)
 - overhead service line (two phase)
 - (* must do)
- installing LV overhead service protection devices, including at least one (1) of the following:
 - service fuse
 - circuit breakers (pole)
 - service link
- conducting tests of LV overhead service connections, including all of the following:
 - polarity test *
 - phase rotation test
 - continuity test
 - voltage test
 - (* must do)
- connecting LV overhead services to at least one (1) of the following overhead distribution conductor types:
 - aluminium LV mains
 - copper LV mains
 - LV aerial bundled cable (ABC) mains
- 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, legislation, supply authority regulations and/or enterprise requirements
- requirements for the use of enterprise construction manuals, system diagrams/plans and drawings, including:
 - types of LV overhead services
 - methods of construction and installation
 - minimum clearances for overhead services to assets and structures
 - ground clearances for overhead services
 - maximum span lengths and tensions for overhead services
 - customer poles
- installation equipment/tools, including:
 - equipment and tools for overhead service installation
 - fittings and hardware for overhead service installation
- characteristics and applications of different types of cables, including:
 - cable cross-sectional area of conductors
 - current rating and fuse types and ratings
- stringing and terminating methods, including:
 - energised and de-energised cables
 - connections to point of attachment, fuse boxes and pole top boxes
 - termination at customer pole
- connection of overhead services, including:
 - types of overhead service connections
 - live LV work principles
- techniques for maintenance of overhead service installations, including:
 - diagnosis and repair of faults
 - removing, repairing and replacing damaged overhead services
 - removing and replacing pole type fuses
- testing and commissioning procedures, including:
 - inspection
 - equipment functionality tests
 - continuity tests
 - polarity, voltage and phase sequence tests
 - neutral and phase identification tests
 - neutral integrity tests
 - meter function test
 - testing check forms
- connection principles, including:

- purpose and function of the multiple earth neutral (MEN) system
- types of connection faults
- causes and effects of incorrect and poor electrical connections
- principles of loop impedance
- reasons for and methods used to maintain standard phase sequencing
- purpose and operation of service fusing
- use of independent earth for testing.

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 personal protective equipment (PPE) currently used in industry for installing and maintaining LV overhead services
- applicable documentation, including workplace procedures, relevant industry standards, equipment specifications, regulations, codes of practice and operation manuals.

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>