



Australian Government

**Assessment Requirements for
UETDRRC001 Install and maintain low
voltage overhead services in a very remote
community**

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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 workplace requirements, including:
 - work health and safety (WHS)/occupational health and safety (OHS)
- identifying hazards, assessing risks, identifying, applying and monitoring control measures
- obtaining, inspecting and using relevant personal protective equipment (PPE)
- obtaining and signing on and off relevant work permits in accordance with workplace requirements
- verifying power systems electrical distribution network has been isolated and earthed and short circuited in accordance with work plan and workplace requirements
- connecting low voltage (LV) overhead service cables, including at least two (2) of the following:
 - three phase *
 - single phase
 - 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
- testing LV overhead service cable connections, including all the following:
 - polarity test
 - phase rotation test
 - continuity test
 - voltage test
 - neutral loop impedance
 - insulation resistance
- restoring supply to LV electricity networks in accordance with work plan and workplace

requirements

- working from at least one (1) of the following:
 - elevated work platform (EWP)
 - platform
 - ladder
- 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:

- legislation, regulations, standards, codes of practice and organisational workplace requirements, including:
 - WHS/OHS
- hazard, risk assessment and risk control requirements, including potential hazards
- types and application of PPE
- safe use of plant, tools and equipment
- application, purpose and types of permits
- types and characteristics of LV overhead service equipment, including:
 - connectors
 - insulation piercing connectors (IPCs)
 - service termination devices
 - fuse holders
 - fuses
 - service poles
 - point-of-attachment brackets
 - mains connection boxes
- construction manuals, system diagrams, plans and drawings
- types, sizes and characteristics of LV overhead service cables, including:
 - two, three and four-core cable
 - cable cross-sectional area of conductors
 - current ratings
 - cable insulation materials
- types of installation plant, equipment and tools, including:
 - EWPs
 - ladders
 - service cable puller and tension tool
 - stripping tools
 - ABC spanner and spreader

- installation techniques, including:
 - consumer poles
 - location of attachments
 - methods of stringing, tensioning and terminating
 - minimum clearances to assets, structures and the ground
 - maximum span lengths and service cable tensions
- connection principles, including:
 - relevant electrical access permit
 - 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
- testing and commissioning procedures, including:
 - inspection
 - equipment functionality
- use of independent earth for testing:
 - continuity
 - insulation testing
 - polarity, voltage and phase sequence
 - neutral integrity
 - meter function
- connection testing forms and documentation
- techniques for maintenance of overhead services, including:
 - inspection
 - types of faults
 - diagnosis and repair of faults
 - removing and replacing services and fuses
- events constituting an unplanned event or incident
- procedures for responding to an unplanned event or incident.

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 overhead LV services in a very remote community
- 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>