



**Australian Government**

**Assessment Requirements for  
UETDRRT22 Maintain traction overhead  
wiring systems**

**Release: 1**

# Assessment Requirements for UETDRRT22 Maintain traction overhead wiring systems

## 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
- using at least four (4) of the following types of system equipment and fittings:
  - support structure
  - span
  - section insulator
  - neutral section
  - midpoint anchor
  - support equipment
  - tension regulators
  - stay/guy wire
  - tramway support network
- using at least two (2) of the following types of traction conductors and cables:
  - catenary
  - dropper
  - contact/trolley\*
  - feeder
  - earth conductor
  - drape/potential jumper
  - (\* must do)
- operating from at least one (1) of the following types of mobile plant and height equipment:
  - elevated work platform (EWP)
  - ladder
  - mobile platform
- obtaining equipment, tools and personal protective equipment (PPE) required for overhead rail traction wiring systems, including using at least two (2) of the following types of tools

and equipment:

- tensioning equipment\*
  - specialised tools
  - ropes
  - geometry profiling equipment
  - (\* must do)
- dealing with unplanned events on at least (1) one 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:

- electrical wiring system components, including:
  - catenary wire, contact/trolley wire, droppers, feeder wire, return conductor, insulators, surge arresters, cantilevers, tensioning equipment, tram support network, tram fittings, bridge/tunnel fittings and current collectors
- electrical traction circuits, including:
  - types
  - applications
- relationship of the components, apparatus and conductors to the operation of the traction system
- effective current collection and wire interface
- effective registration in the traction power system
- dynamic and static forces, including:
  - types that effect traction systems
  - effects on effective registration
  - techniques to minimise adverse effects
- safe and effective use of repair and maintenance tools, equipment and machinery
- maintenance of overhead traction wiring systems, including:
  - types of equipment and components
  - types and function of tools and equipment
  - maintenance/repair procedures
  - inspection and recording procedures
- diagnosis and correction of simple faults in specific overhead wiring systems, including:
  - types and causes
  - determination of appropriate corrective actions
  - repair and replace procedures for overhead wiring systems.

## 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 traction overhead wiring systems
- 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>