



**Australian Government**

**Assessment Requirements for  
UETTD RTP31 Maintain energised  
transmission lines using high voltage live  
work stick method**

**Release: 1**

# Assessment Requirements for UETTD RTP31 Maintain energised transmission lines using high voltage live work stick method

## 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
- accessing work zone using at least two (2) of the following methods:
  - ladder access
  - elevated work platform (EWP) access
  - elevated work box (EWB) access
  - structure access
- completing all the following:
  - electrical integrity of insulators
  - replacing strain insulators
  - replacing suspension insulators
- performing at least three (3) of the following live work tasks:
  - replacing/installing vibration dampers
  - repairing/replacing conductor spacers
  - repairing/replacing conductor fittings and hardware
  - applying pre-formed helical fittings
  - installing/removing vibration meters
  - replacing cross-arms
  - replacing poles
- 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:

- Commonwealth/state/territory legislation, standards, codes, supply authority regulations

and/or enterprise requirements associated with working on energised lines for voltages from 66 kV up to 500 kV utilising live work stick method

- relationship and responsibilities of each team member encompassing:
  - roles of the individual in the team
  - contribution to joint outcomes
  - goals/plans and objectives of the team
  - team communication
  - effective teamwork
- safety precautions for working on energised lines encompassing:
  - live work minimum approach distances for persons and plant
  - calculation of forces supported by live working equipment
  - identification of WHS/OHS hazards, and assessing and controlling risks
  - types, selection, maintenance, storage and uses of personnel protective equipment (PPE) required for live stick work
  - types and functions, safe working policies, procedures and practices for use of specialised live work plant, equipment and tools
  - emergency response and rescue procedures
- electrical and electrostatic principles encompassing:
  - relationship of the resistance of a human body to different levels of current and voltage
  - relationship of a human body to an electric field
  - effects of electrostatic induction for live stick work
  - relationship of phase voltage and respective line voltages
  - effect of distance
  - potential of an object within the field and the effect of distances to the potential
- high voltage (HV) feeder auto-reclosing suppression encompassing:
  - function
  - application
  - live work access authority/permit systems
- selection care, use and maintenance of sticks for live work encompassing:
  - care of live work sticks
  - use and load limitations of live work sticks
  - cleaning live work sticks
  - restoring gloss surfaces of live work sticks
  - repairing small ruptures of live work sticks
  - repairing broken fittings of live work sticks
- selection, care, use and maintenance of ropes for live work encompassing:
  - identification of ropes used for live stick work
  - characteristics
  - types
  - application

- restrictions
- storage
- transport
- cleaning
- labelling
- testing
- recording
- techniques in splicing
- determining suitability of the rope for continued use
- live stick work techniques performed in accordance with enterprise requirements encompassing:
  - connecting and/or disconnecting HV bypass bridges
  - erecting and using boom pole and insulator cradle
  - erecting and/or replacing structures and poles
  - installing and/or replacing HV cross-arms
  - installing and/or replacing HV suspension insulators
  - installing and/or replacing HV strain insulators
  - installing and/or replacing suspension clamp unit
  - installing and/or replacing fittings and hardware to conductors
  - installing and/or replacing vibration dampers
  - installing and/or replacing preformed repair rods
- checking electrical integrity of insulators prior to work encompassing:
  - visual and audible assessment
  - test for disc voltage difference
  - plot data
  - assess data
  - determining condition of an insulator string
- rigging procedures for live work encompassing
  - identification of rigging points on structures
  - selection and positioning of rigging equipment on structures
  - selection and operation of rope tackles
- safety observer principles and responsibilities encompassing:
  - areas of responsibility
  - supervisor skills
  - protocols and procedures
  - specific duties of a safety observer
  - techniques in observing others in the safe performance of their work
  - minimum approach distances for personnel and hand-held tools
  - special limits of approach.

## 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, equipment and PPE currently used in industry
- applicable documentation, including workplace procedures, 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>