



Australian Government

UETTD RTP25 Pre-tension stringing overhead transmission conductors and cables

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.

Application

This unit covers the stringing of overhead conductors and cables with no electrical connections being made. It includes the preparation of the site, the pre-positioning of conductors and fitting of conductor/cable stringing equipment, where appropriate, and the cleaning of insulators in accordance with work orders.

The application of the skills and knowledge described in this unit may require a licence/registration to practice in the workplace subject to regulations for undertaking of electrical work.

Other conditions may apply under state and territory legislative and regulatory licencing requirements which must be confirmed prior to commencing this unit.

Pre-requisite Unit

Common Unit Group

UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace

UETTDREL13 Comply with sustainability, environmental and incidental response policies and procedures

UETTD RTP23 Erect power systems transmission structures

UETTD RTP24 Erect power systems transmission structure hardware

Competency Field

Transmission

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to pre-tension string the transmission overhead conductors and cables

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1** Work instructions are received and confirmed
- 1.2** Relevant requirements and established procedures to be followed for the work to be performed are discussed with all personnel to establish and confirm the work schedule
- 1.3** Work health and safety (WHS)/occupational health and safety (OHS) policies and procedures to be followed for the work to be performed are received and confirmed
- 1.4** Suggestions to assist in meeting pre-tension stringing of transmission overhead conductors and cables outcomes are made to others involved in the work
- 1.5** Hazards are identified, WHS/OHS risks assessed and emergency exits kept clear according to given instructions and established procedures
- 1.6** Scope of responsibility under the relevant work permit are received and confirmed with relevant personnel according to requirements and established procedures
- 1.7** Resources, including, equipment, tools and personnel protective equipment (PPE), required for the job are obtained and in working order according to established procedures
- 1.8** Relevant responsibility associated with first aid, tower/pole top rescue and/or other related work safety procedures at the worksite are confirmed in accordance with requirements and established procedures to ensure safety measures are followed in the instance of an incident
- 1.9** Client issues are referred to appropriate personnel in accordance with industry/community standards
- 1.10** Site is prepared according to given instructions and the work schedule for a quality outcome and to minimise

		risk and damage to property, commerce and individuals in accordance and established procedures
	1.11	Road signs, barriers and other warning devices are positioned in accordance with given instructions and requirements
2 Carry out pre-tension stringing of transmission overhead conductors and cables	2.1	WHS/OHS and sustainable energy principles and practices to reduce the incidents of accidents and minimise waste are followed in accordance with given instructions, requirements and/or established procedures
	2.2	Lifting, climbing, working aloft, and use of power tools/equipment, techniques and practices are safely followed in accordance with given instructions and according to requirements
	2.3	Operational knowledge for the pre-tension stringing of transmission overhead conductors and cables to be applied to the work is confirmed to ensure completion in an agreed timeframe and to quality standards with a minimum of waste according to requirements and established procedures
	2.4	Pre-tension stringing of transmission overhead conductors and cables is carried out in accordance with given instructions and established routines/procedures
	2.5	Hazard warnings and safety signs are recognised and hazards and assessed WHS/OHS risks are reported to immediate authorised personnel for directions according to established procedures
	2.6	Non-routine events are referred to immediate authorised personnel for directions according to established procedures
	2.7	Problems associated with pre-tension stringing of transmission overhead conductors and cables are dealt with using acquired known solutions and skills related to routine procedures to ensure work instructions and established procedures are met
	2.8	Ongoing checks of quality of the work are undertaken in accordance with given instructions and established procedures
3 Complete pre-tension stringing of transmission	3.1	Work undertaken is checked against work schedule and anomalies reported to authorised personnel in

overhead conductors and cables

accordance with established procedures

- 3.2** Accidents and/or incidents are actioned and reported to authorised personnel in accordance with established procedures
- 3.3** Worksite is rehabilitated, cleaned up and made safe in accordance with given instructions and established procedures
- 3.4** Tools, equipment and any surplus resources and materials are, where appropriate, cleaned, checked and returned to storage in accordance with established procedures
- 3.5** Appropriate personnel are notified of work completion according to established procedures
- 3.6** Work completion records and report forms/data sheets are completed accurately in accordance with given instructions and established procedures

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UETTD RTP25A Pre-tension stringing overhead transmission conductors and cables.

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>

Assessment Requirements for UETTD RTP25 Pre-tension stringing overhead transmission conductors and cables

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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
- performing stringing with at least two (2) of the following conductor types:
 - copper
 - aluminium
 - steel
 - aluminium/steel reinforced
 - high voltage (HV) ABC
 - High Voltage Insulated Unscreened Conductor (HV IUC)
- performing pre-tension stringing of overhead transmission conductors and cables using any one (1) of the following types of equipment:
 - elevated work platform (EWP)
 - winches/capstans
 - tension equipment
 - stringing equipment
 - cable trailers
 - cable drum stands
 - ropes
 - rollers
 - sheaves
 - stockings
 - swivels
- 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:

- stringing installation overhead transmission conductors and cables encompassing:
 - standards, codes, legislation, supply authority regulations and/or enterprise requirements applicable to stringing conductors and cables
 - requirements for the use of overhead line construction manuals, system diagrams/plans and drawings, and material lists
 - conductor size, type and route length
 - constructions types and structures for transmission lines
 - types, sizes and characterises of overhead conductors
 - resources for the stringing of conductors, - personal protective equipment (PPE), plant, tools and equipment
 - techniques in stringing conductors - safe working practices, method of conductor support, consideration for the environment, location/positioning of the conductor/cable, types and application of tools, and equipment and hardware
 - methods of stringing conductors.

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.

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