



**Australian Government**

# **UETTDRDP11 Inspect overhead poles-structures and electrical apparatus**

**Release: 1**

# **UETTDRDP11 Inspect overhead poles-structures and electrical apparatus**

## **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 involves the skills and knowledge required to inspect overhead poles-structures and electrical apparatus in the electricity supply industry (ESI).

It includes inspection of overhead conductors and/or cables, underground and overhead transition points, pole-mounted transformers, switchgear, hardware and/or earthing systems. It also includes the completion of inspection reports and other relevant documentation.

The application of the skills and knowledge described in this unit may require a licence/registration to practice in the workplace.

Other conditions may apply under state and territory legislative and regulatory licensing 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

UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications

UETTDREL11 Apply sustainable energy and environmental procedures

UETTDREL16 Working safely near live electrical apparatus

## **Competency Field**

Distribution

## **Unit Sector**

Not applicable.

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

#### **1 Prepare to inspect overhead structures and electrical apparatus used on poles-structures**

### PERFORMANCE CRITERIA

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

- 1.1** Work schedules, plans, drawings, workplace procedures and material lists are received and confirmed
- 1.2** Job requirements and workplace procedures are identified and communicated with relevant personnel
- 1.3** Work health and safety (WHS)/ occupational health and safety (OHS), environmental and workplace procedures for the inspection of overhead structures and electrical apparatus used on poles and/or structures are obtained and confirmed for the purposes of the work to be performed and communicated
- 1.4** Work is prioritised and sequenced for completion within acceptable timeframes following consultation with relevant personnel and in accordance with workplace procedures
- 1.5** Hazards are identified, WHS/OHS risks assessed and control measures identified in accordance with workplace procedures
- 1.6** Relevant work permits are obtained, understood and signed in accordance with workplace procedures
- 1.7** Plant, equipment, tools and personal protective equipment (PPE) required for work is identified, obtained and confirmed in working order
- 1.8** Worksite is prepared to minimise risk, damage to property, commerce and individuals in accordance with workplace procedures
- 1.9** Traffic management plan is confirmed as being applied in accordance with workplace procedures
- 2.1** WHS/OHS, sustainable energy and environmental principles and practices are monitored and followed to reduce incidents in accordance with workplace procedures

#### **2 Inspecting overhead structures and electrical apparatus used on poles-structures**

- 2.2 Requirements for lifting and/or climbing and/or working at heights and the use of power tools/equipment are followed in accordance with workplace procedures
  - 2.3 Inspection of overhead poles-structures and electrical apparatus is completed in agreed timeframes, to quality standards and with minimum waste in accordance with workplace procedures
  - 2.4 Inspection of overhead structures and electrical apparatus is performed in accordance with job schedules, work requirements and workplace procedures
  - 2.5 Unplanned events in the inspection of overhead poles-structures and electrical apparatus are responded to in accordance with workplace procedures
  - 2.6 Quality checks of work are undertaken in accordance with workplace procedures
- 3 **Complete inspection of overhead structures and electrical apparatus used on poles-structures**
  - 3.1 Completed work is checked against work plan, construction plans and drawings for compliance and anomalies are reported in accordance with workplace procedures
  - 3.2 WHS/OHS and environmental incidents are reported in accordance with workplace procedures, as required
  - 3.3 Worksite is rehabilitated, cleaned up and made safe in accordance with workplace procedures
  - 3.4 Tools, equipment and surplus resources and materials are, where appropriate, cleaned, checked and returned to storage in accordance with workplace procedures
  - 3.5 Relevant work permits are signed off and overhead structures and electrical apparatus used on poles-structures are returned to service in accordance with workplace procedures
  - 3.6 Work records, reports and/or documentation are completed in accordance with workplace 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 UETTDROP11A Inspect overhead poles-structures and electrical apparatus.

## **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 UETTDRDP11 Inspect overhead poles-structures and electrical apparatus

## Modification History

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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
- inspecting any three (3) of the following items on each occasion:
  - poles and structures
  - overhead conductors/cables
  - underground/overhead transition points
  - electrical equipment
  - hardware
  - earthing systems
- undertaking inspections using at least one (1) of the following:
  - ground
  - vehicle
  - helicopter
  - fixed wing
- undertaking inspections using at least two (2) of the following inspection methods:
  - visual\*
  - infra-red camera
  - X-ray
  - camera
  - (\*must Do)
- 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
- characteristics of wood used for structures within the electrical distribution system encompassing:
  - relationship between timber and water
  - faults that occur that influence the integrity of the structure
  - effects of fungal activity
  - effects of termite and borer activity
  - effects of dry rot
- deterioration of assets encompassing:
  - relationship between steel, concrete and wood
  - deterioration in steel and concrete
  - inspection procedures for deterioration
- overhead line inspection procedures of electrical distribution structures encompassing:
  - methods and requirements for overhead line inspection on electrical distribution structures
  - clearances for overhead conductors, cables and structures
  - use of specific equipment during inspection
  - methods of recording data
- underground cable inspection procedures in the electrical distribution system encompassing:
  - state/territory and industry policies and regulations
  - methods and requirements for inspection of underground cable terminations.

## 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 inspecting overhead poles-structures and electrical apparatus
- applicable documentation, including workplace procedures, relevant industry standards, equipment specifications, regulations, codes of practice and operation manuals.

## Links

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