



Australian Government

UETDRDU016 Lay power cables

Release: 1

UETDRDU016 Lay power cables

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.

Application

This unit involves the skills and knowledge required to lay power cables in the electricity supply industry (ESI).

It includes positioning and using plant and equipment for direct laying of cables in trenches, on racks and in conduit or ducts.

It also includes bedding and protecting cables, cable pulling methods, sealing cable ends and backfilling the excavation.

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

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

Pre-requisite Unit

Not applicable.

Competency Field

Distribution Underground

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

PERFORMANCE CRITERIA

Elements describe the essential outcomes.

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

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|-------------------------------------|---|
| 1 Prepare to lay power cable | 1.1 Legislation, regulations, standards, codes of practice and organisational workplace requirements for the work to |
|-------------------------------------|---|

be performed are referred to and confirmed

- 1.2 Work plan is obtained and confirmed in accordance with workplace requirements
- 1.3 Materials required for work are determined and obtained in accordance with work plan and workplace requirements
- 1.4 Plant, tools, equipment, and personal protective equipment (PPE) required for work are determined, obtained and confirmed in working order
- 1.5 Communication method for the laying is confirmed with other workers
- 1.6 Hazards are identified, risks assessed and control measures identified and applied
- 1.7 Cable route is confirmed, excavated and bedded in accordance with the work plan and workplace requirements
- 1.8 Work is prioritised and sequenced for completion in accordance with work plan and workplace requirements
- 1.9 Worksite is prepared in accordance with the work plan and workplace requirements
- 1.10 Traffic management plan is confirmed as being in place in accordance with workplace requirements

2 Carry out laying of power cable

- 2.1 Legislation, regulations, standards, codes of practice and organisational workplace requirements for the work to be performed are applied and monitored
- 2.2 Lifting, working in confined spaces, the use of plant, tools, equipment and PPE are carried out in accordance with workplace requirements
- 2.3 Hazard control measures are monitored in accordance with workplace requirements
- 2.4 Cable laying plant and equipment is positioned in accordance with the work plan and workplace requirements
- 2.5 Conduit and cable are laid, cable is bedded and protected in accordance with the work plan and workplace requirements

- 2.6 Communication with other workers is maintained during the laying of cables in accordance with the work plan and workplace requirements
 - 2.7 Cable ends are sealed in accordance with the work plan and workplace requirements
 - 2.8 Backfilling is confirmed in accordance with the work plan and workplace requirements
 - 2.9 Incidents or unplanned events are responded to in accordance with workplace requirements
 - 2.10 Quality checks of work are undertaken in accordance with work plan and workplace requirements
- 3 Complete work and documentation**
 - 3.1 Completed work is checked for compliance against the work plan and workplace requirements
 - 3.2 Incidents or unplanned events are reported in accordance with workplace requirements
 - 3.3 Worksite is rehabilitated, cleaned and made safe in accordance with workplace requirements
 - 3.4 Plant, tools and equipment are cleaned, checked and returned to storage in accordance with workplace requirements
 - 3.5 Surplus materials are returned to storage or disposed of in accordance with workplace requirements
 - 3.6 Personnel are notified of work completion in accordance with workplace requirements

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 UET Transmission, Distribution and Rail Sector Training Package Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UETTDRCJ21 Lay ESI electrical cables.

Links

Companion Volume Implementation Guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=229bace1-b7bc-4653-9300-dffb13ecfad7>

Assessment Requirements for UETDRDU016 Lay power cables

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 legislation, regulations, standards, codes of practice and organisational workplace requirements, including:
 - work health and safety (WHS)/occupational health and safety (OHS)
 - using liquefied petroleum gas (LPG)
 - excavation/trench safety
- identifying hazards, assessing risks, identifying, applying and monitoring control measures
- interpreting and using drawings, diagrams and instructions
- obtaining, inspecting and using relevant personal protective equipment (PPE)
- laying of cables, including:
 - high voltage (HV) polymeric
 - low voltage (LV) polymeric
 - laying and sealing conduits
 - positioning cable laying plant and equipment
 - sealing cable ends
 - bedding and protecting cables
- backfilling open trench in accordance with workplace requirements
- dealing with an unplanned event 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:

- relevant legislation, regulations, standards, codes of practice and organisational workplace requirements, including:
 - WHS/OHS
 - excavation/trench safety
 - use of LPG
- hazard, risk assessment and risk control requirements, including potential hazards

- types and application of PPE
- safe use of plant, tools and equipment
- events constituting an unplanned event or incident
- procedures for responding to an unplanned event or incident
- diagrams/plans
- power cables, including:
 - cables types and sizes
 - cable construction and bending radius
- cable laying, including:
 - excavation/trenching
 - conduit laying and sealing
 - cable alignments and depths
 - plant, tools and equipment for cable laying
 - clearance from other underground cables or buried utilities
 - cable handling
 - cable laying methods
 - cable pulling methods
 - cable tensioning methods
 - cable protection methods
 - cable sealing
 - bedding and backfilling.

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 laying power cables
- applicable documentation, including workplace requirements, relevant industry standards, regulations, codes of practice and operation manuals.

Links

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