



Australian Government

UETDRMP011 Testing of connections to low voltage electricity networks

Release: 1

UETDRMP011 Testing of connections to low voltage electricity networks

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 4.0.

Application

This unit involves the skills and knowledge required to perform testing of connections to low voltage (LV) electricity networks in the electricity supply industry (ESI) environment.

It includes the requirements for testing when connecting and/or reconnecting a customer's installation to an electricity supply network and how it applies to ESI workers to meet work health and safety (WHS)/occupational health and safety (OHS), mobility and mutual aid requirements.

Note: Those holding an existing Certificate III ESI or Certificate III Electrotechnology qualification or equivalent meet the prerequisite unit requirements.

Refer to the UET Transmission, Distribution and Rail Sector Training Package Companion Volume Implementation Guide for equivalency definition.

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

UEECD0007 Apply work health and safety regulations, codes and practices in the workplace

UEECD0019 Fabricate, assemble and dismantle utilities industry components

UEECD0044 Solve problems in multiple path circuits

UEECD0046 Solve problems in single path circuits

UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications

UEEEL0020 Solve problems in low voltage a.c. circuits

UEEEL0021 Solve problems in magnetic and electromagnetic devices

UETDREL001 Apply environmental requirements

and

UETDREL004 Operate plant and equipment in the vicinity of live electrical apparatus

UETDREL005 Work safely in the vicinity of live electrical apparatus

UETDRIS010 Install and maintain low voltage overhead services

or

UETDREL005 Work safely in the vicinity of live electrical apparatus

UETDRIS011 Install and maintain low voltage underground services

or

UETDRIS014 Install and replace energy meters and associated equipment

Competency Field

Mobility and Portability

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to perform test procedures

2 Carry out test procedures

PERFORMANCE CRITERIA

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

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|------------|---|
| 1.1 | Workplace requirements for perform testing of connections are identified and confirmed |
| 1.2 | Hazards are identified, risks assessed, and control measures identified and applied |
| 1.3 | Tools, equipment and personal protective equipment (PPE) required for testing are determined, obtained and confirmed in working order |
| 2.1 | Hazard control measures are monitored in accordance with workplace requirements |
| 2.2 | Use of tools, equipment and PPE for testing are carried out in accordance with workplace requirements |
| 2.3 | Testing of connections to electricity networks are conducted in accordance with workplace requirements and AS4741 |
| 2.4 | Corrective actions are undertaken in accordance with workplace requirements |

3 Complete the test procedures

3.1 Test results are recorded 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 not equivalent to UETTDRRF11 Testing of connections to low voltage electricity networks.

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 UETDRMP011 Testing of connections to low voltage electricity networks

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 one occasion and include:

- identifying hazards, assessing risks and applying control measures
- preparing and using test equipment
- obtaining, inspecting and using relevant personal protective equipment (PPE)
- testing of single phase and multi-phase connections in accordance with workplace requirements
- recording test results in accordance with workplace requirements.

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:

- low voltage (LV) testing of network connections including:
 - selection, inspection and use of test equipment relevant for the testing procedures
 - types and application of PPE
 - acceptable neutral voltage criteria
 - polarity testing
 - neutral integrity testing
 - phase rotation testing
 - phasing confirmation
 - corrective actions in accordance with workplace requirements
 - recording results in accordance with workplace requirements
 - test procedures of single phase and multi-phase connections in accordance with workplace requirements and AS4741
 - identification of secondary points of contact
- causes and effects of incorrect and poor electrical connections.

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.

Assessors must observe candidates completing tasks in an individual setting. Practical assessment conducted in groups is not appropriate for this unit.

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 tools, equipment and PPE currently used in industry for testing of connections to LV electricity networks
- applicable documentation including workplace requirements, relevant industry standards, equipment specifications, regulations, codes of practice and operation manuals.

Links

Companion Volume Implementation Guides are found in VETNet -

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