



Australian Government

UETDRRC004 Install and replace energy meters and associated equipment in a very remote community

Release: 1

UETDRRC004 Install and replace energy meters and associated equipment in a very remote community

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 install and replace whole current energy meters and associated equipment in a very remote community in the electricity supply industry (ESI).

It includes the testing of whole current energy meters and associated equipment to identify faults and establish normal functions of energy meters and associated equipment.

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

UEECD0046 Solve problems in single path circuits

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

UETDREL001 Apply environmental requirements

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

UETDREL005 Work safely in the vicinity of live electrical apparatus

UETDRRC006 Perform low voltage electricity network switching in a very remote community

UETDRRC007 Solve problems in electrical network apparatus in a very remote community

UETDRRC008 Solve problems in low voltage electrical network circuits in a very remote community

Competency Field

Remote Community

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.

1 Prepare to install and replace energy meters and associated equipment

- 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** Hazards are identified, risks assessed and control measures identified and applied
- 1.6** Work is prioritised and sequenced for completion in accordance with workplace requirements
- 1.7** Electrical network circuit is confirmed as being isolated and earthed/short circuited in accordance with workplace requirements
- 1.8** Work permits are received and signed in accordance with workplace requirements
- 1.9** Worksite is prepared in accordance with work plan and workplace requirements

2 Carry out the installation or replacement of energy meters and associated equipment

- 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, climbing, working at heights, 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 Installation or replacement of whole current energy meters is carried out in accordance with workplace requirements
- 2.5 Earthing/short circuiting equipment is removed, permit signed off and electrical network circuits re-energised in accordance with workplace requirements
- 2.6 Whole current energy meters and associated equipment are tested in accordance with workplace requirements
- 2.7 Whole current energy meters and associated equipment are programmed and sealed in accordance with workplace requirements
- 2.8 Incidents or unplanned events are responded to in accordance with workplace requirements
- 2.9 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 Work records, reports and documentation are completed, and appropriate personnel notified 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 UETTDRI34 Install and replace energy meters and associated equipment in remote communities.

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 UETDRRC004 Install and replace energy meters and associated equipment in a very remote community

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)
- identifying hazards, assessing risks, identifying, applying and monitoring control measures
- obtaining, inspecting and using relevant personal protective equipment (PPE)
- preparing to enter the workplace including the use of work permits, clearances and isolation permissions
- confirming electrical network circuits have been isolated and earthed/short circuited in accordance with work plan and workplace requirements
- installing or replacing at least one (1) of the following whole current energy meters:
 - induction disk energy meter
 - electronic energy meter
 - electronic summator
- installing at least two (2) of the following associated metering equipment:
 - service fuses
 - service links
 - meter panels
 - controlled output meters
- re-energising electrical network circuits in accordance with workplace requirements
- completing at least three (3) of the following tests of whole current energy meters:
 - polarity*
 - continuity
 - insulation resistance
 - meter functionality (load)
 - neutral integrity
 - phase sequence (rotation)

- voltage
- (*must do)
- working from at least one (1) of the following:
 - elevated work platform (EWP)
 - platform
 - ladder
- dealing with an unplanned event on at least one (1) occasion
- completing relevant work records, reporting and documentation.

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:

- legislation, regulations, standards, codes of practice and organisational workplace requirements, including:
 - WHS/OHS
- hazard, risk assessment and risk control requirements, including potential hazards
- types and application of PPE
- safe use of plant, tools and equipment
- application, purpose and types of permits
- whole current energy meters, including:
 - construction
 - operation
 - error codes
- associated metering equipment, including:
 - construction
 - operation
- metering arrangements, including:
 - direct
 - distributed master
 - multiple master
 - plug-in
 - multiple earth neutral (MEN) system
- cable types and applications
- installation tools, equipment and testing devices
- installation and removal of energy meters, including:
 - stripping cable
 - cable terminations
 - meter wiring positions
 - service protection device (SPD)

- meter boards
- testing procedures, including:
 - continuity
 - insulation resistance
 - polarity
 - phase sequence
 - neutral integrity
 - meter functionality
- procedures for recording energy meter documentation
- customer education on energy meters
- techniques for the maintenance of energy metering, including:
 - fault finding
 - fault rectification
 - meter reading
 - tariff changes
- events constituting an unplanned event or incident
- procedures for responding to an unplanned event or incident.

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 installing and replacing whole current energy meters and associated equipment in a very remote community
- applicable documentation, including workplace requirements, relevant industry standards, equipment specifications, regulations, codes of practice and operation manuals.

Links

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