



Australian Government

UETDRIS014 Install and replace energy meters and associated equipment

Release: 1

UETDRIS014 Install and replace energy meters and associated equipment

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 energy meters and associated equipment in the electricity supply industry (ESI).

It includes installing, replacing, testing and commissioning of whole current energy meters and associated equipment in accordance with workplace requirements.

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

Competency Field

Industry Specific Cross Discipline

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

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

1 Prepare to install or 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** Work is prioritised and sequenced for completion in accordance with work plan and workplace requirements
- 1.5** Hazards are identified, risks assessed and control measures identified and applied
- 1.6** Tools, equipment and personal protective equipment (PPE) required for work are determined, obtained and confirmed in working order
- 1.7** Worksite is prepared in accordance with the work plan and workplace requirements

2 Carry out the installation of new 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 and the use of 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 of energy meters and associated equipment is performed in accordance with the work plan and workplace requirements
- 2.5** Energy meter is energised and tested in accordance with workplace requirements
- 2.6** Incidents or unplanned events are responded to in accordance with workplace requirements

- 2.7 Quality checks of work are undertaken in accordance with work plan and workplace requirements
- 3 Carry out the replacement of energy meters and associated equipment**
- 3.1 Legislation, regulations, standards, codes of practice and organisational workplace requirements for the work to be performed are applied and monitored
- 3.2 Lifting and the use of tools, equipment and PPE are carried out in accordance with workplace requirements
- 3.3 Hazard control measures are monitored in accordance with workplace requirements
- 3.4 Energy meter is read, isolated and tested to prove de-energised in accordance with workplace requirements
- 3.5 Replacement of energy meters and associated equipment is performed in accordance with the work plan and workplace requirements
- 3.6 Energy meter is energised and tested in accordance with workplace requirements
- 3.7 Incidents or unplanned events are responded to in accordance with workplace requirements
- 3.8 Quality checks of work are undertaken in accordance with work plan and workplace requirements
- 4 Complete work and documentation**
- 4.1 Completed work is checked for compliance against the work plan and workplace requirements
- 4.2 Incidents or unplanned events are reported in accordance with workplace requirements
- 4.3 Worksite is cleaned and made safe in accordance with workplace requirements
- 4.4 Tools and equipment are cleaned, checked and returned to storage in accordance with workplace requirements
- 4.5 Surplus materials are returned to storage or disposed of in accordance with workplace requirements
- 4.6 Work records, reports and documentation are completed 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 UETTDRI60 Install and replace power system energy meters and associated equipment.

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 UETDRIS014 Install and replace energy meters and associated equipment

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)
- installing whole current energy meters
- reading, testing and replacing whole current energy meters
- installing associated metering equipment
- replacing associated metering equipment
- energising and testing of whole current energy meters and associated equipment
- dealing with an unplanned event on at least one (1) occasion
- completing relevant work records, reports 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:

- relevant legislation, regulations, standards, codes of practice and organisational workplace requirements, including:
 - WHS/OHS
 - energy meters and associated equipment
- hazard, risk assessment and risk control requirements, including potential hazards
- types and application of PPE
- safe use of tools and equipment
- events constituting an unplanned event or incident
- procedures for responding to an unplanned event or incident
- construction, operation and selection of whole current energy meters
- construction, operation and selection of associated metering equipment

- metering arrangements, including direct, distributed master, multiple master, plug-in and multiple earth neutral (MEN) system
- cable types and applications
- installation and replacement of energy meters, including:
 - stripping cable
 - cable terminations
 - meter wiring positions
 - service protection device (SPD)
 - meter boards
- testing procedures, including:
 - voltage
 - continuity
 - insulation resistance
 - polarity
 - phase sequence
 - neutral integrity
 - meter functionality
- procedures for recording energy meter documentation
- techniques for the maintenance of energy metering, including fault finding, fault rectification, meter reading and tariff changes.

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 energy meters and associated equipment
- applicable documentation, including workplace requirements, relevant industry standards, equipment specifications, regulations, codes of practice and operation manuals.

Links

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