



Australian Government

UEEEL0013 Install, set up and commission interval metering

Release: 1

UEEEL0013 Install, set up and commission interval metering

Modification History

Release 1. This is the first release of this unit of competency in the UEE Electrotechnology Training Package.

Application

This unit involves the skills and knowledge required to the install, set up and commission interval meter for measurement of energy use by consumers.

It includes working safely in planning, installing and setting up interval electricity meter, and completing the necessary service metering documentation.

The skills and knowledge described in this unit require a licence or permit to practice in the workplace where work is carried out on electrical installations which are designed to operate at voltages greater than 50 volt (V) alternating current (a.c.) or 120 V direct current (d.c.).

Competency development activities in this unit are subject to regulations directly related to licensing. Where a licence or permit to practice is not held, a relevant contract of training, such as an Australian Apprenticeship, may be required.

Additional and/or other conditions may apply in some jurisdictions subject to regulations related to electrical work. Practice in the workplace and during training is also subject to work health and safety (WHS)/occupational health and safety (OHS) regulations.

Pre-requisite Unit

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

UEECD0019 Fabricate, assemble and dismantle utilities industry components

UEECD0020 Fix and secure electrotechnology equipment

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

UEECD0016 Document and apply measures to control WHS risks associated with electrotechnology work

UEEEL0003 Arrange circuits, control and protection for electrical installations

UEEEL0020 Solve problems in low voltage a.c. circuits

UEEEL0023 Terminate cables, cords and accessories for low voltage circuits

UEEEL0018 Select wiring systems and select cables for low voltage electrical installations

UEEEL0005 Develop and connect electrical control circuits

UEEEL0019 Solve problems in direct current (d.c.) machines

UEEEL0021 Solve problems in magnetic and electromagnetic devices

UEEEL0014 Isolate, test and troubleshoot low voltage electrical circuits

UEEEL0008 Evaluate and modify low voltage heating equipment and controls

UEEEL0009 Evaluate and modify low voltage lighting circuits, equipment and controls

UEEEL0010 Evaluate and modify low voltage socket outlets circuits

UEEEL0024 Test and connect alternating current (a.c.) rotating machines

UEEEL0025 Test and connect transformers

UEEEL0012 Install low voltage wiring, appliances, switchgear and associated accessories and

UEECD0043 Solve problems in direct current circuits

or

UEECD0044 Solve problems in multiple path circuits

UEECD0046 Solve problems in single path circuits

Competency Field

Electrical

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to install interval meter

PERFORMANCE CRITERIA

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

- | | |
|------------|---|
| 1.1 | WHS/OHS requirements and workplace procedures, for a given work area, are identified and applied |
| 1.2 | Health and safety hazards are identified, risks assessed and risk control measures and workplace procedures implemented in preparation for the work |
| 1.3 | Safety hazards not previously identified are noted on job safety assessments and existing risk control measures implemented |
| 1.4 | Switchboard on which the meter is to be installed is inspected and evaluated for compliance with safety, |

functionality and industry standards

1.5 Approval to rectify safety and/or functionality defects of the switchboard is sought from relevant person/s in accordance with workplace procedures

1.6 Electrical meter installation and/or rectification work is prepared in consultation with relevant person/s effected by the work and sequenced appropriately

1.7 Materials needed for meter work are obtained in accordance with workplace procedures and checked against job requirements and specifications

1.8 Tools, equipment and testing devices needed for meter work are obtained in accordance with workplace procedures and checked for correct operation and safety

2 Install interval meter

2.1 WHS/OHS risk control measures and workplace procedures for carrying out the work are followed

2.2 Need to test or measure live work is determined in accordance with WHS/OHS requirements and conducted within workplace safety procedures

2.3 Existing meter is checked and isolated in accordance with WHS/OHS requirements and workplace procedures

2.4 Approved rectification work is carried out to comply with industry standards and in accordance with workplace procedures

2.5 Meter is installed to comply with relevant technical industry standards, job specifications and requirements

2.6 Meter power and communication connections are made in accordance with manufacturer specifications, functional and regulatory requirements

2.7 Meter operating parameters are set in accordance with manufacturer specifications, functional and regulatory requirements

2.8 Unplanned situations are responded to in accordance with workplace procedures in a manner that minimises risk to personnel and equipment and with the approval of an authorised person/s

2.9 Ongoing checks of the quality of installed apparatus are

		undertaken in accordance with workplace procedures
	2.10	Meter installation is carried out efficiently without unnecessary waste of materials or damage to apparatus circuits, the surrounding environment or services using sustainable energy principles
3 Complete and report meter installation activity	3.1	WHS/OHS work completion risk control measures and workplace procedures are followed and supply is reinstated to the installation in accordance with regulator and industry standards
	3.2	Worksite is cleaned and made safe in accordance with workplace procedures
	3.3	Final inspection and tests are made to ensure the installed meter conforms to job requirements
	3.4	‘As-installed’ meter or rectification work is documented and appropriate person/s notified 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 UEE Electrotechnology Training Package Companion Volume Implementation Guide.

Installing interval electricity meters must include the following:

- a single phase interval meter
- a two-way interval meter
- an interval meter where compliance rectification work is required

Unit Mapping Information

This unit replaces and is equivalent to UEENEEG171A Install, set up and commission interval metering.

Links

Companion Volume implementation guides are found in VETNet - -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>

Assessment Requirements for UEEEL0013 Install, set up and commission interval metering

Modification History

Release 1. This is the first release of this unit of competency in the UEE Electrotechnology Training Package.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions on at least two separate occasions and include:

- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements and workplace procedures and practices, including using of risk control measures
- applying sustainable energy principles and practices
- completing and reporting meter installation activities
- dealing with unplanned events in accordance with workplace procedures in a manner that minimises risk to personnel and equipment
- determining prospective fault-current switchboard form types
- installing, setting up and commissioning interval electrical meters, including:
 - carrying out preparation work effectively
 - documenting meter and rectification work and notifying appropriate person/s in accordance with workplace procedures
 - following workplace procedures to obtain approval to rectify non-compliance aspects of the switchboard
 - inspecting and evaluating safety and functionality compliance of the switchboard accurately
 - locating of switchboards and arrangement of switchboard equipment in installations
 - making power and communications connections in accordance with manufacturer specifications and functional and regulatory requirements
 - placing and securing meter correctly
 - rectifying compliance defects
 - reinstating supply to the installation safely in accordance with workplace procedures
 - setting meter parameters in accordance with manufacturer specifications and functional and regulatory requirements
- planning to install interval electrical meters.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of

the requirements of the elements, performance criteria and range of conditions and include knowledge of:

- current industry practices and technologies
- interval meter concepts and installation, including:
 - classes of meter types, functions, and construction from a block diagram
 - communication methods and arrangements
 - importing and exporting energy
 - installation and power connection arrangements and connections for gas metering
 - purpose, types and applications
 - single and polyphase meters and procedures for setting meter parameters
- meter layouts and requirements, including:
 - accessibility and restricted locations of switchboards
 - arrangement and identification of switchboard equipment
 - arrangement and installation of meter equipment
 - construction requirements of switchboards
 - identification of main switchboards
 - meter equipment
 - protection against switchboard internal arc faults
 - purpose, types and applications
 - switchboard wiring and fire-protective measures
 - varying arrangements for meter and meter layouts
- reasons for meter and the regulated market, including regulations
- relevant industry technical standards
- relevant job safety assessments or risk mitigation processes
- relevant manufacturer specifications
- relevant state/territory regulator interval metre commissioning requirements and specifications
- relevant WHS/OHS legislated and regulation requirements
- relevant workplace documentation
- relevant workplace policies and procedures
- sustainable energy principles and practices.

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 suitable workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in suitable simulated workplace

operational situations that replicate 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
- resources used should reflect current industry practices in relation to installing and setting up interval meters
- applicable documentation, including workplace procedures, equipment specifications, regulations, relevant industry standards, codes of practice and operation manuals.

Links

Companion Volume implementation guides are found in VETNet - -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>