



Australian Government

Assessment Requirements for UEEEL0078

Install and commission whole current electricity meters

Release: 2

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Modification History

Release 2. Updated Elements and Performance Criteria number sequence.

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

This unit replaces and is not equivalent to UEEEL0013 Install, set up and commission interval metering.

Modifications this release include:

- The title has been changed
- Prerequisite requirements amended
- Significant changes have been made to performance criteria to reflect current industry practice
- The Range of conditions has been amended to specify essential operating conditions
- Significant changes have been made to Performance Evidence to reflect current industry practice
- Significant changes have been made to Knowledge Evidence to reflect current industry practice
- Minor amendments made to Assessment Conditions.

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:
 - completing risk assessment and implementing risk control measures
 - inspecting and evaluating safety and functionality compliance of the switchboard
 - identifying and eliminating hazards such as Asbestos Containing Materials (ACMs)
 - producing draft pre-start risk assessment (workplan) including any rectification work and need for issuance of Safe Work Method Statements (SWMS)
- completing all work in accordance with relevant workplace procedures, industry standards, manufacturer specifications and regulation
- communicating with customers about metering installation work outcomes, planned interruption notification work on accordance with required legislative framework, and configurations completion of work schedule
- carrying out required pre and post installation tests and assessments

- installing, configuring and commissioning whole current electricity meters
- installing communication connection devices
- rectifying compliance defects
- reinstating supply to the installation safely
- performing final inspection and tests to ensure installed meter conforms to work order and job requirements
- cleaning and making safe work area and tools and removing and disposing of consumable items and waste materials including meters and any hazardous substances
- conducting final visual checks of the meter installation activity and work area to ensure the work site is left clean of any potential hazards or inappropriate materials
- completing and submitting installation compliance certification and documentation and reporting meter installation completion of work activities to relevant person/s
- dealing with unplanned events in accordance with workplace procedures in a manner that minimises risk to personnel and equipment.

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:

- the contestable market and market participants overview:
 - purpose of a contestable market
 - market participants and their roles and responsibilities encompassing electricity retailers
 - reasons for meter and the regulated market
 - regulatory timeframes (AER)
 - regulatory framework
- relevant WHS/OHS legislated and regulation requirements including:
 - identifying hazards at customers premises
 - identifying hazards at electrical switchboards
 - identifying known electrical design hazards
 - performing site specific risk assessment
 - carrying out job safety assessments and/or risk mitigation processes
 - implementing critical controls including PPE
 - principles of duty of care responsibilities
 - risks and hazards of working on or near live electrical equipment and conductors
 - risks associated with testing or measuring live
 - risks associated with lifting and shorting CT circuits, opening slides on test blocks, CATIV connectors to test equipment
 - safeguards for potential fault currents
 - safeguards potential arc flash and arc flash burns
 - safeguards of potential risks with other services (e.g. gas meters)

- hazards and mitigation requirements of Asbestos Containing Materials (ACMs), including:
 - ACMs code of practice
 - identifying ACMs
 - meters containing ACMs
 - other components ACMs
 - drilling, removal, disposal, and decontamination
- hazards and mitigation requirements of other potential hazardous materials and substances in metering installation work
- isolation requirements and risks, including:
 - isolating customer load via m/s or rewirable fuse
 - isolating supply to meter via SPD / MPD / MIL
 - confirming isolated – proving safe to work
- whole current electricity meter concepts and installation, including:
 - purpose, types and applications
 - single and polyphase (multi-element) meters
 - classes of meter types (e.g. integrated, Whole Current [WC], functions (e.g. controlled load, net and gross as well as those with internal load control switching), and typical construction and associated risks
 - relevant state/territory regulator whole current electricity meter commissioning requirements and specifications
 - communication methods and arrangements as well as:
 - segregation and dangers of exposure to conductive parts
 - configuration techniques and practices
 - communications technology devices (e.g. antenna/transmitter)
 - installing communications technology devices and cables in the proximity of LV conductors, mountings and routing cables
 - performance verification and rectification of communication problems
 - importing and exporting energy incorporating power and energy difference
 - installation and power connection arrangements and segregation with gas metering
 - procedures for configuring meter parameter
- current industry practices and technologies, including:
 - scope for meter installer
 - managing defects
 - meter reading
 - meter disposal (including identified Asbestos Containing Materials (ACMs) meters)
 - metering details (administration)
 - communications technology device and cabling installation
 - planned interruptions notification and network isolations
- standard wiring configurations, including:
 - single phase

- single phase with Communication Links (CL)
- three-phase
- three-phase with Communication Links (CL)
- net generation
- gross generation
- meter layouts and requirements as determined by meter providers
- non-standard configurations (e.g. ANNA – looped neutral – multiple occupancy; rural – multiple meter locations, SWER systems; network load control devices; direct supply to metering; embedded networks)
- electrical testing techniques and practices, including:
 - test methods and pre-test calibration of test equipment
 - types of electrical tests including live tests
 - pre and post work tests
 - polarity and neutral tests
 - phase rotation
 - MEN integrity tests
 - pre energisation tests
 - equipment integrity tests
- facilities for the installation of metering equipment including:
 - seals or locks to metering equipment
 - local jurisdictional rules and procedures related to Service Protection Device/s (SPD) / Meter Protection Device/s (MPD) / Meter Isolation Link (MIL)
 - meter equipment panel
 - meter equipment components
 - metering equipment enclosure
 - physical protection and segregation of metering equipment
 - meter equipment enclosure fixing requirements
 - metering equipment fixing requirements
 - isolated and unattended locations and locking of metering enclosures
- location and accessibility of metering equipment for different types of premises
- documentation including:
 - Australian standards (e.g. wiring rules), codes of practice
 - National Electricity Law
 - Meter Installation Authorisation Schemes
 - meter provider rules
 - rules or Service and Installation Rules (SIRs)
 - planned legislative interruption notification framework - National Energy Customer Framework (NECF) guidelines
 - customers' electricity retailer provider certificates of compliance or completion
 - work orders and job requirements

- Safe Work Method Statements (SWMS)
- labelling of metering equipment and metering installation components
- workplace procedures encompassing meter equipment and installation pre-start risk assessment (workplan)
- manufacturer specifications
- communicating technical information including requirements for:
 - liaising with customers
 - liaising with retailers
 - liaising with supervisors and/or authorised persons
 - resolving interruptions and complaints.

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>