



Australian Government

Assessment Requirements for UETTD RIS68 Solve problems in energy supply network protection equipment and systems

Assessment Requirements for UETTDRIS68 Solve problems in energy supply network protection equipment and systems

Modification History

Release 1. This is the first release of this unit of competency in the UET Transmission, Distribution and Rail Sector 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 and performance criteria on at least two separate occasions and include:

- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including the use of risk control measures
- applying sustainable energy principles and practices
- solving problems in energy supply network equipment including all of the following:
 - determining the operating parameters of existing energy supply protection equipment and systems
 - envisaging the likely extent of work from reports and discussions with appropriate personnel
 - using methodical problem-solving techniques
 - solving problems efficiently
 - altering an existing energy supply protection equipment to comply with specified operating parameters
 - developing energy supply protection equipment to comply with a specified function and operating parameters
 - determining conditions causing an existing energy supply protection equipment to be unsafe
 - completing documentation correctly
- solving problems in energy supply network systems including at least one (1) of the following:
 - distribution overhead system
 - distribution underground system
 - transmission overhead system
 - transmission underground system
- solving problems in energy supply protection equipment and systems including at least two (2) of the following:
 - over-current protection
 - earth fault protection
 - differential protection

- oil and gas devices
- busbar protection
- surge protection
- conventional relays
- electronic relays
- reclosers/sectionalisers
- dealing with unplanned events on at least one (1) occasion.

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:

- protection fundamentals encompassing:
 - purpose of protection
 - features of a protection scheme
- instrument transformers for protection encompassing:
 - operating principles
 - applications of current transformers
 - applications of voltage transformers
- feeder protection encompassing:
 - fuse protection
 - overcurrent and earth fault
 - sensitive earth fault
 - unit schemes
 - distance protection
 - trip/close sequences for feeders
 - recloser/sectionaliser systems
- transformer protection encompassing:
 - overheating protection
 - overcurrent protection
 - restricted earth fault protection
 - differential protection
 - oil and gas devices
- busbar protection encompassing:
 - types of fault
 - requirements of busbar protection
 - system protection
 - frame-earth protection
- surge protection encompassing:
 - voltage surges

- surge diverters
- arcing horns.

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:

- 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
- applicable documentation, including workplace procedures, relevant industry standards, equipment specifications, regulations, codes of practice and operation manuals.

Links

UET Training Package Companion Volume Implementation Guide is found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=229bace1-b7bc-4653-9300-dffb13ecfad7>