



**Australian Government**

# **Assessment Requirements for UETDRTS033 Commission and maintain network protection and control systems**

**Release: 1**

# **Assessment Requirements for UETDRTS033 Commission and maintain network protection and control 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 Release 4.0.

## **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 (2) separate occasions and include:

- identifying hazards, assessing risks, and identifying, applying and monitoring control measures
- determining the preparation required for the commissioning and maintaining network protection and control systems including:
  - workplace organisational requirements
  - testing procedures and parameters
  - tools, equipment, personal protective equipment (PPE) and work permits
  - stakeholder liaison
- inspecting and using relevant tools, equipment and PPE
- establishing the purpose of the commissioning and maintenance of network protection and control systems
- commissioning four (4) types of network protection and control systems
- maintaining network protection and control systems, including:
  - isolating protection, control and alarms associated with protection and control schemes
  - carrying out function tests (trips and alarms) on protection and control schemes
  - recording performance of protection and control schemes
  - isolating in-service current transformers
- completed commissioning and maintenance documentation is made available in accordance with workplace requirements.

## **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:

- electrical equipment associated with protection and control schemes, including:
  - types and applications
  - characteristics and capabilities

- maintenance and commissioning system diagrams, drawings and operating manuals
- testing techniques and procedures
- types and applications of test equipment
- operation, maintenance and commissioning procedures for protection devices and high voltage (HV) plant
- relay manufacturer specifications, types, function and characteristics
- operation, maintenance and commissioning procedures associated with other protection and control systems including:
  - gas collection
  - oil collection
  - sulphur hexafluoride (SF6) collection
  - surge relay
- measurements, interpretation and analysis of protection and control schemes for HV plant and equipment
- operation, maintenance and commissioning procedures associated with voltage regulation schemes
- electrical equipment associated with distribution field device protection and control schemes
- circuit breaker auxiliary systems
- detailed operation and setting of protection and control schemes
- location and rectification of faults in low voltage (LV) electrical equipment
- effects of harmonics.

## 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, equipment and PPE currently used in industry
- applicable documentation, including workplace requirements, relevant industry standards, equipment specifications, regulations, codes of practice and operation manuals.

## Links

Companion Volume Implementation Guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=229bace1-b7bc-4653-9300-dffb13ecfad7>