



Australian Government

**Assessment Requirements for
UETTDRTS33 Undertake power systems
project management of substation
augmentation and maintenance**

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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
- managing three (3) projects (encompassing at least twenty (20) identifiable tasks) including installation, testing and commissioning stages
- applying project management skills including all of the following:
 - work planning
 - coordination of labour resources
 - on-site supervision
 - controlling quality
 - use of quality systems
 - planned versus actual comparisons
 - communication with designers
 - control of materials
 - substation primary plant
 - substation secondary equipment
 - substations civil projects
- 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:

- system components and layouts encompassing:
 - distribution system layouts - overhead/underground, urban/rural, high voltage (HV) customers, high rise building systems, three phase lines, single phase lines, single wire

- earth return (SWER) systems, spur, parallel and ring systems, and typical substation types
- transmission system layouts - lines, buses, transformers and cables; line/bus layouts, including single, double, ring and breaker and half systems; and HV crossing methods
- alternating current (a.c.) transmission system components encompassing:
 - support structures and reasons for selection
 - insulators and reasons for selection
 - conductors and reasons for selection
 - vibration management systems and principles
 - line ratings based on voltage, span, tension and temperature
- procedure to undertake a visual inspection of a scheme encompassing:
 - standards, codes, Commonwealth/state/territory legislation, supply authority regulations and/or enterprise requirements associated with visual inspection procedures of a scheme
 - requirements for the use of manuals, system diagrams/plans and drawings
 - identify obvious deficiencies in operating to the standard functionality
 - techniques in determining device malfunction
 - techniques in determining wiring defects
- commissioning procedures associated with relevant equipment encompassing:
 - standards, codes, Commonwealth/state/territory legislation, supply authority regulations and/or enterprise requirements associated with the commissioning procedures
 - requirements for the use of commissioning manuals, system diagrams/plans and drawings
 - techniques in commissioning procedures – planning, policy, testing techniques and close out requirements.

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>