



Australian Government

Assessment Requirements for UETDRIS024

Develop and validate low voltage distribution switching programs

Release: 1

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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 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:

- applying relevant legislation, regulations, standards, codes of practice and organisational workplace requirements including:
 - work health and safety (WHS)/occupational health and safety (OHS) requirements
- establishing the purpose of the low voltage (LV) switching program
- identifying hazards, assessing risks, and identifying, applying and monitoring control measures
- confirming, reviewing, and updating workplan, based on technical advice, site inspection, and data analysis
- determining personnel and equipment required for the work
- prioritising and sequencing work
- checking completed work for compliance against the work plan and workplace requirements
- completing relevant work records, reports and documentation
- using available data and resources to determine best outcomes
- using and interpreting single line diagrams (SLD)
- identifying work permit requirements
- identifying high voltage (HV) protection impacted by LV normally open point
- developing a radial switching program including verification and approvals for one (1) of the following:
 - HV/LV transformer
 - LV switchgear
 - LV lines and HV feeders
- developing an interconnected switching program including verification and approvals for one (1) of the following:
 - HV/LV transformer
 - LV switchgear
 - LV lines and HV feeders
- completing all of the following checks when writing an LV switching program:
 - load management

- voltage management
- network component ratings
- standby generation
- paralleling
- induced back-feed
- uninterruptible power supply (UPS)
- implementing earthing procedures
- switching impact on customers.

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:

- relevant legislation, regulations, standards, codes of practice and organisational workplace requirements including WHS/OHS requirements
- purpose of the LV switching program
- data analysis
- hazard, risk assessment and risk control requirements, including potential hazards
- compliance with legislation, regulations, standards, codes of practice, workplan, and workplace requirements
- prioritisation and sequencing of work for completion
- operational personnel requirements
- application, purpose and types of permits
- work records, reports and documentation
- writing switching programs
- interconnected LV electrical networks
- principles of HV single wire earth return (SWER) system
- LV switching principles, including:
 - switching operator responsibilities
 - manuals, system diagrams, plans and drawings
 - types, characteristics and capabilities of electrical apparatus
 - types, characteristics and capabilities of specialised tools and testing equipment
 - sources of possible back-feed
 - restrictions on electrical apparatus
 - isolation procedures
 - earthing/shorting procedures
 - fault levels and settings
 - load calculation
 - operating agreements
 - fundamentals of single/split phase LV
 - HV protection impacted by LV normally open point.

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, 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>