



Australian Government

UETDRTS018 Maintain, test and commission power systems voltage regulating equipment

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 2.0.

Application

This unit covers the maintenance, testing and commissioning of distribution field devices to relevant standards, including voltage regulators, automatic circuit reclosers (ACR) control boxes, line capacitors and associated communication devices. It includes communicating with the operating authority, testing, clearing after test and energisation using techniques that are acceptable to the operating authority.

The application of the skills and knowledge described in this unit may require a licence/registration to practice in the workplace subject to regulations for undertaking of electrical work.

Other conditions may apply under state and territory legislative and regulatory licencing requirements which must be confirmed prior to commencing this unit.

Pre-requisite Unit

UEENEEED104A Use engineering applications software on personal computers

UEENEEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace

UEENEEEE102A Fabricate, assemble and dismantle utilities industry components

UEENEEEE104A Solve problems in d.c. circuits

UEENEEEE107A Use drawings, diagrams, schedules, standards, codes and specifications

UEENEEEE124A Compile and produce an energy sector detailed report

UEENEEEE125A Provide engineering solutions for problems in complex multiple path circuits

UEENEEEE126A Provide solutions to basic engineering computational problems

UEENEEEG101A Solve problems in electromagnetic devices and related circuits

UEENEEEG102A Solve problems in low voltage a.c. circuits

UEENEEEG149A Provide engineering solutions to problems in complex polyphase power circuits

UETDREL001 Apply environmental requirements

UETDREL005 Work safely in the vicinity of live electrical apparatus

UETDRIS005 Implement & monitor power system environmental & sustainable energy

management policies & procedures

UETDRIS006 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs

Competency Field

Testing

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Plan and coordinate the maintenance, testing and commissioning of distribution field devices

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1** Work health and safety (WHS)/occupational health and safety (OHS) practices/procedures and environmental and sustainable energy procedures, which may influence the maintenance testing and commissioning of distribution field devices, are reviewed and determined
- 1.2** Purpose of the work is established and expected outcomes of the work are confirmed with appropriate personnel
- 1.3** Established organisational procedures, policies and specifications for the work are obtained or established with appropriate personnel
- 1.4** Equipment/tools and personal protective equipment (PPE) are selected and coordinated based on specified requirements and established procedures
- 1.5** Work is prioritised and sequenced for the most efficient and effective outcome following consultation with others for completion within acceptable timeframes, to a quality standard and in accordance with established procedures
- 1.6** Risk control measures are identified, prioritised and evaluated against the work schedule

- 1.7 Relevant work permits are secured to coordinate the performance of work according to requirements and/or established procedures
- 1.8 Resources, including personnel, equipment, tools and PPE required for the job are identified, scheduled and coordinated, and confirmed in safe and technical working order
- 1.9 Liaison and communication issues with others/authorised personnel, authorities, clients and landowners are resolved and activities coordinated to carry out work
- 1.10 Site is prepared according to the work schedule and to minimise risk and damage to property, commerce and individuals in accordance with established procedures
- 2 **Carry out and coordinate the maintenance, testing and commissioning of distribution field devices**
 - 2.1 Circuit/systems modelling is used to evaluate alternative proposals in accordance with established procedures
 - 2.2 WHS/OHS and sustainable energy principles, functionality and practices to avoid the incidence of accidents and minimise waste are incorporated into the project in accordance with requirements and/or established procedures
 - 2.3 Maintenance, testing and commissioning decisions are made on the basis of safety and effective outcomes according to requirements and/or established procedures
 - 2.4 Mathematical models of the distribution system are used to analyse the effectiveness of the finished project in accordance with requirements and established procedures
 - 2.5 Technical advice is given regarding potential hazards, safety risks and control measures so that monitoring and preventative action can be undertaken and/or appropriate authorities consulted, where necessary, in accordance with requirements and established procedures
 - 2.6 Essential knowledge and associated skills are applied to analyse specific data and compare it with compliance specifications to ensure completion of the project within an agreed timeframe according to requirements

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| | <p>2.7 Solutions to non-routine problems are identified and actioned using acquired essential knowledge and associated skills according to requirements</p> <p>2.8 Quality of work is monitored against personal performance agreement and/or established organisational and professional standards</p> |
| <p>3 Complete and coordinate the maintenance, testing and commissioning of distribution field devices</p> | <p>3.1 Final inspections of the work are undertaken to ensure it complies with all requirements and includes all specifications and documentation needed to complete the brief</p> <p>3.2 Appropriate personnel are notified of completion and reports and/or completion documents are finalised</p> <p>3.3 Reports and/or completion documents are submitted to relevant personnel/organisations for approval and, where applicable, statutory or regulatory approval</p> <p>3.4 Approved copies of test documents are issued and records updated in accordance with established procedures</p> |

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the UET Transmission, Distribution and Rail Sector Training Package Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UETTDRTS31 Maintain, test and commission power systems voltage regulating equipment.

Links

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

