



**Australian Government**

# **UETDRIS004 Develop low voltage switching schedule**

**Release: 1**

# UETDRIS004 Develop low voltage switching schedule

## 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 preparation of a basic switching schedule for low voltage (LV) network. It includes planning basic outages and taking into account loading of network components. It also includes the calculation of network loading conditions to ensure the network is operating within design parameters.

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 licensing requirements which must be confirmed prior to commencing this unit.

## Pre-requisite Unit

All competencies in the Common Unit Group must have been completed, plus all competencies in one (1) of the identified Pathway Unit Group(s).

### Common Unit Group

UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace

UEENEEE102A Fabricate, assemble and dismantle utilities industry components

UEENEEE104A Solve problems in d.c. circuits

UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications

UEENEEG101A Solve problems in electromagnetic devices and related circuits

UEENEEG102A Solve problems in low voltage a.c. circuits

UETDREL005 Work safely in the vicinity of live electrical apparatus

UETDRIS018 Perform low voltage field switching operation to a given schedule

### Transmission Overhead Pathway Group

UETDREL001 Apply environmental requirements

UETDREL004 Operate plant and equipment in the vicinity of live electrical apparatus

UETDRIS007 Install and maintain distribution overhead conductors and cables

UETDRTO006 Install and maintain transmission conductors

UETDRTO007 Install and maintain transmission structures and hardware

#### Distribution Overhead Pathway Group

UETDRDO005 Maintain overhead energised low voltage distribution network

UETDREL001 Apply environmental requirements

UETDREL004 Operate plant and equipment in the vicinity of live electrical apparatus

UETDRIS007 Install and maintain distribution overhead conductors and cables

UETDRIS008 Install and maintain electrical apparatus

UETDRIS010 Install and maintain low voltage overhead services

UETDRIS012 Install and maintain poles, structures and hardware

#### Rail Traction Pathway Group

UETDREL001 Apply environmental requirements

UETDREL004 Operate plant and equipment in the vicinity of live electrical apparatus

UETDRIS007 Install and maintain distribution overhead conductors and cables

UETDRIS012 Install and maintain poles, structures and hardware

UETDRRT002 Install overhead traction components and equipment

UETDRRT003 Install rail traction bonds

UETDRRT004 Install traction overhead wiring systems

UETDRRT009 Maintain overhead traction components and equipment

UETDRRT011 Maintain traction overhead wiring systems

#### Distribution Cable Jointing Pathway Group

UETDRDU013 Joint, terminate and maintain high voltage underground polymeric cable

UETDRDU015 Joint, terminate and maintain low voltage underground polymeric cable

UETDRDU016 Lay power cables

UETDREL001 Apply environmental requirements

UETDREL004 Operate plant and equipment in the vicinity of live electrical apparatus

UETDRIS008 Install and maintain electrical apparatus

UETDRIS011 Install and maintain low voltage underground services

#### Electrical Pathway Group

UEENEEE137A Document and apply measures to control OHS risks associated with electrotechnology work

UEENEEG006A Solve problems in single and three phase low voltage machines

UEENEEG033A Solve problems in single and three phase low voltage electrical apparatus and circuits

UEENEEG063A Arrange circuits, control and protection for general electrical installations

UEENEEG106A Terminate cables, cords and accessories for low voltage circuits

UEENEEG108A Trouble-shoot and repair faults in low voltage electrical apparatus and circuits

UEENEEG109A Develop and connect electrical control circuits

UEENEEK142A Apply environmentally and sustainable procedures in the energy sector

UETDRIS67 Solve problems in energy supply network equipment

## Competency Field

Industry Specific Cross Discipline

## Unit Sector

Not applicable.

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

#### **1 Prepare/plan to develop LV switching schedules**

### PERFORMANCE CRITERIA

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

- 1.1** Work schedules, including drawings, plans, requirements, established procedures and material lists, are obtained and analysed, as necessary, by site inspection and the extent of the preparation of the work determined for planning and coordination
- 1.2** 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
- 1.3** Relevant requirements and established procedures for the work are communicated to all personnel and identified for all worksites
- 1.4** Hazards are identified, work health and safety (WHS)/occupational health and safety (OHS) risks assessed and control measures prioritised, implemented and monitored, including emergency exits kept clear, to ensure safe systems of work are followed and according to established procedures

- 1.5 Relevant work permits are secured to coordinate the performance of work according to requirements and/or established procedures
  - 1.6 Resources, including personnel, equipment, tools and personal protective equipment (PPE), required for the job are identified, scheduled and coordinated and confirmed safe and in technical working order
  - 1.7 Clients/customers are provided with possible solutions and/or options within the scope, acceptable cost and requirements
  - 1.8 Personnel participating in the work, including plant operators and contractors, are fully briefed and respective responsibilities coordinated and authorised, where applicable, in accordance with established procedures
  - 1.9 Liaison and communication issues with others/authorised personnel, authorities, clients and landowners are resolved and activities coordinated to carry out work
- 2 Carry out the development of LV switching schedules**
- 2.1 WHS/OHS and sustainable energy principles and practices to reduce the incidents of accidents and minimise waste are monitored and actioned in accordance with requirements and/or established procedures
  - 2.2 Hazard warnings and safety signs are recognised and hazards and assessed WHS/OHS risks are reported to immediate authorised personnel for directions according to established procedures
  - 2.3 Remedial actions are taken to overcome any shortfalls encountered in the work schedule according to requirements and/or established procedures
  - 2.4 Development of LV switching schedules is carried out in accordance with the work schedule and requirements and/or established procedures
  - 2.5 Essential knowledge and associated skills are applied in the safe development of LV switching schedules to ensure completion in an agreed timeframe and to quality standards with a minimum of waste according to requirements

- 2.6** Solutions to non-routine problems are identified and actioned using acquired essential knowledge and associated skills according to requirements
- 2.7** Ongoing checks of quality of the work are undertaken in accordance with requirements and established procedures to ensure a quality outcome is achieved for the client/customer and to a community/industry standard
- 3 Complete development of LV switching schedules**
- 3.1** Work undertaken is checked against work schedule for conformance with requirements, anomalies reported and solutions identified in accordance with established procedures
- 3.2** Relevant work permits) are signed off and plant is returned to service and client/customer advised in accordance with requirements
- 3.3** Accidents and/or injuries are reported and followed up in accordance with requirements/established procedures
- 3.4** Work completion records, reports, as installed/modified drawings and/or documentation and information are confirmed, processed and appropriate personnel notified

## 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 UETDRIS49 Develop low voltage switching schedule.

## **Links**

Companion Volume Implementation Guides are found in VETNet -

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