



Australian Government

UETDRIS021 Coordinate and direct switching programs

Release: 1

UETDRIS021 Coordinate and direct switching programs

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.

Application

This unit includes the skills and knowledge required to coordinate and direct switching programs in the electricity supply industry (ESI).

It includes the coordination and direction of switching high voltage (HV) and low voltage (LV) network circuits.

It also includes coordinating switching between operating authorities and customers.

Note: Entry into this unit is for users who:

- *hold the unit UETDREL005 Work safely in the vicinity of live electrical apparatus or equivalent*

and

- *hold a UET Certificate III Qualification or the equivalent issued in an Australian state or territory,*

or

- *hold an Electrician or Electrical Fitter licence or the equivalent issued in an Australian state or territory,*

or

- *hold an Electrician or Electrical Fitter qualification or the equivalent issued in an Australian state or territory.*

In addition, Electricians or Electrical Fitters must have completed the unit UETDRIS032 Solve problems in network equipment, or equivalent to meet the requirements for working in the electricity supply industry (ESI).

The application of the skills and knowledge described in this unit may require a licence/registration to practice in the workplace.

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

Pre-requisite Unit

Refer to Application.

Competency Field

Industry Specific Cross Discipline

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to coordinate and direct switching programs

PERFORMANCE CRITERIA

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

- 1.1** Purpose for the switching program is established in accordance with workplace requirements
- 1.2** Legislation, regulations, standards, codes of practice and organisational workplace requirements for the work to be done are reviewed and determined
- 1.3** Data is analysed for best outcomes in accordance with workplace requirements
- 1.4** Hazards are identified, risks assessed, and control measures identified and applied
- 1.5** Work plan is developed, validated and communicated with stakeholders in accordance with workplace requirements
- 1.6** Work permits are determined in accordance with workplace requirements
- 1.7** Operational personnel requirements are determined in accordance with workplace requirements

2 Coordinate and direct switching programs

- 2.1** Legislation, regulations, standards, codes of practice and organisational workplace requirements for the work to be performed are applied and monitored
- 2.2** Personnel are confirmed and coordinated in accordance with workplace requirements
- 2.3** Switching programs are coordinated and directed in accordance with workplace requirements

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| | 2.4 | Work permits are received and signed in accordance with workplace requirements |
| | 2.5 | Hazard control measures are monitored in accordance with workplace requirements |
| | 2.6 | Incidents or unplanned events are responded to in accordance with workplace requirements |
| 3 Complete work and documentation | 3.1 | Completed work is checked for compliance against the work plan and workplace requirements |
| | 3.2 | Incidents or unplanned events are reported in accordance with workplace requirements |
| | 3.3 | Work permits are signed off in accordance with workplace requirements |
| | 3.4 | Work records, reports and documentation are completed, and appropriate personnel notified in accordance with workplace requirements |

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 not equivalent to UETDRIS001 Coordinate and direct power system switching schedules.

Links

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

Assessment Requirements for UETDRIS021 Coordinate and direct switching programs

Modification History

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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
- identifying hazards, assessing risks, identifying, applying and monitoring control measures
- dealing with an unplanned event on at least one (1) occasion
- obtaining and signing work permits in accordance with workplace requirements
- completing relevant work records, reports and documentation
- demonstrating switching coordination and direction 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:

- relevant legislation, regulations, standards, codes of practice and organisational workplace requirements including WHS/OHS requirements
- hazard, risk assessment and risk control requirements, including potential hazards
- application, purpose and types of permits
- events constituting an unplanned event or incident
- procedures for responding to an unplanned event or incident
- workplace records, reports and documentation maintenance
- operational personnel requirements
- switching programs
- interconnected electrical networks
- functions of supervisory control and data acquisition (SCADA) or equivalent system
- electrical network switching principles, including:
 - responding to alarms, indicators and trouble calls
 - switching operator authorisation
 - manuals, system diagrams, plans and drawings

- types, characteristics and capabilities of electrical apparatus
- sources of possible back-feed
- restrictions on electrical apparatus
- isolation procedures
- earthing procedures
- fault levels and settings
- load calculation
- operating agreements
- protection system principles
- principles of:
 - HV single wire earth return (SWER) system
 - harmonics
 - resonant networks
 - feeder automation systems.

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:

- applicable documentation, including workplace requirements, equipment specifications, regulations, codes of practice and operation manuals.

Links

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