



Australian Government

UETDRSO012 Coordinate and manage distribution and sub-transmission network access and activities

Release: 1

UETDRSO012 Coordinate and manage distribution and sub-transmission network access and activities

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 distribution and sub-transmission network access and activities in the electricity supply industry (ESI).

It includes making coordination and management decisions for work plans, in accordance with best outcomes, safety control measures, and workplace requirements.

It also includes types, characteristics and capabilities of electrical apparatus, sources of possible back-feed, high voltage (HV) isolation and earthing procedures, and operating agreements.

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

UEECD0007 Apply work health and safety regulations, codes and practices in the workplace

UEECD0044 Solve problems in multiple path circuits

UEECD0046 Solve problems in single path circuits

UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications

UEEEL0020 Solve problems in low voltage a.c. circuits

UEEEL0021 Solve problems in magnetic and electromagnetic devices

UETDRSO015 Develop and validate distribution and sub-transmission switching programs

UETDRSO016 Develop and validate low voltage switching programs

UETDRSO020 Operate SCADA equipment

Competency Field

System Operations

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

PERFORMANCE CRITERIA

Elements describe the essential outcomes.

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

1 Prepare to coordinate and manage distribution and sub-transmission network access and activities

- 1.1** Legislation, regulations, standards, codes of practice and organisational workplace requirements for the work to be done are reviewed and determined
- 1.2** Purpose of the coordination is established after data is analysed and expected outcomes of the work are confirmed with appropriate personnel
- 1.3** Work plans are obtained and confirmed in accordance with workplace requirements
- 1.4** Systems modelling is used to evaluate and determine best outcomes for work plans in accordance with workplace requirements
- 1.5** Work roles and tasks are determined according to requirements and individual competencies
- 1.6** Work is prioritised and sequenced for completion in accordance with work plan and workplace requirements
- 1.7** Liaison and communication issues with authorised personnel, authorities and clients are resolved to facilitate work, as required
- 1.8** Hazards are identified, risks assessed, and control measures identified and applied
- 1.9** Work permits are determined in accordance with workplace requirements

2 Coordinate and manage distribution and sub-transmission network access and activities

- 2.1** Legislation, regulations, standards, codes of practice and organisational workplace requirements for the work to be performed are applied and monitored

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| | 2.2 | Work plans are evaluated and monitored for best outcomes in accordance with workplace requirements |
| | 2.3 | Coordination and management decisions are made in accordance with best outcomes, safety control measures, and workplace requirements |
| | 2.4 | Work teams are coordinated according to best outcomes, individual competencies and workplace requirements |
| | 2.5 | Work permits are received and signed 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 UETDRSO001 Coordinate high voltage distribution and sub-transmission networks.

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 UETDRSO012 Coordinate and manage distribution and sub-transmission network access and activities

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, and identifying, applying and monitoring control measures
- dealing with an unplanned event on at least one (1) occasion
- obtaining and signing on and off relevant work permits in accordance with workplace requirements
- completing relevant work records, reports and documentation
- evaluating and monitoring work plans for best outcomes in accordance with workplace requirements
- making coordination decisions in accordance with best outcomes, safety control measures, and workplace requirements
- coordinating and managing at least one (1) work team according to best outcomes, individual competencies and workplace requirements
- coordinating and managing one (1) work plan for access to each of the following:
 - high voltage (HV) transformer
 - HV switchgear
 - HV lines
 - HV bus
- coordinating and managing one (1) work plan, which considers at least two (2) of the following:
 - commissioning of HV plant
 - planned interruption to HV customer
 - installation of a mobile generator
 - consideration of paralleling feeders
 - HV switching impact on low voltage (LV) customers

- HV capacitors
- HV regulators
- managing all of the following for each of the work plans:
 - load
 - voltage
 - system reliability
 - critical customers
- completing all of the following:
 - checking switching instructions
 - calculating plant loading
 - monitoring switching progress
 - monitoring the status of access permits and authorities
 - ensuring network plant operates within specifications
 - applying and administering supervisory control and data acquisition (SCADA)
 - meeting paralleling conditions for interconnected networks.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all 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 possible hazards
- events constituting an unplanned event or incident
- procedures for responding to an unplanned event or incident
- workplace records, reports and documentation
- application, purpose, and types of permits, and access authority procedures
- coordination and management of work teams for best outcomes, individual competencies and workplace requirements
- interconnected HV electrical networks, including fundamentals of HV single wire earth return (SWER) system
- principles of harmonics
- principles of resonant networks
- fault levels and settings
- load calculation
- operating agreements
- types, characteristics and capabilities of electrical apparatus
- types, characteristics and capabilities of specialised tools and testing equipment
- manuals, system diagrams, plans and drawings
- HV switching principles, including:
 - HV switching operator responsibilities

- sources of possible back-feed
- restrictions on electrical apparatus
- HV isolation procedures
- HV earthing procedures.

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 computerised electrical plant control and monitoring facilities currently used in industry
- applicable documentation, including workplace requirements, relevant industry standards, equipment specifications, regulations, codes of practice, operational event data, network drawings, crisis management procedures and operation manuals.

Links

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