



Australian Government

Department of Education, Employment and Workplace Relations

UETDRDS41A Manage electrical power systems infrastructure projects

Release: 1

UETTDRDS41A Manage electrical power systems infrastructure projects

Modification History

Not applicable.

Unit Descriptor

Unit Descriptor

1) Scope:

1.1) Descriptor

This Competency Standard Unit covers the work planning and resource requirements, and financial control of infrastructure projects being undertaken within the distribution, sub transmission and transmission, overhead and underground networks. It includes project management activities, which may involve the simultaneous management of many projects, and must encompass at least 20 identifiable tasks.

Application of the Unit

Application of the Unit 2)

This Competency Standard Unit is intended to augment formally acquired competencies. It is suitable for employment-based programs under an approved contract of training.

Licensing/Regulatory Information

License to practice 3)

The skills and knowledge described in this unit may require a licence/registration to practice in the work place subject to regulations for undertaking of electrical work. Practice in workplace and during training is also subject to regulations directly related to Occupational Health and Safety, electricity/telecommunications/gas/water industry safety and compliance, industrial relations, environmental

License to practice**3)**

protection, anti discrimination and training.
Commonwealth, State/Territory or Local Government
legislation and regulations may exist that limits the age of
operating certain equipment.

Pre-Requisites**Prerequisite Unit(s)****4)****Competencies****4.1)**

Granting of competency in this unit shall be made only
after competency in the following unit(s) has/have been
confirmed.

Where pre-requisite pathways have been identified. All
competencies in the Common Unit Group must be have
been completed plus all the competencies in one (1) of the
identified Pathway Unit Group(s):

Common Unit Group

Unit Code	Unit Title
UEENEEE101A	Apply Occupational Health and Safety regulations, codes and practices in the workplace
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 electromagnetic devices and related circuits
UETTDREL11A	Apply sustainable energy and environmental procedures
UETTDREL16A	Working safely near live electrical apparatus
UETTD RIS62A	Implement and monitor the power

Prerequisite Unit(s)**4)**

system organisational OHS policies, procedures and programs

UETTDRI63A Implement and monitor the power system environmental and sustainable energy management policies and procedures

Testing Pathway Unit Group

UEENEED104A Use engineering applications software on personal computers

UEENEEE102A Fabricate, assemble and dismantle utilities industry components

UEENEEE124A Compile and produce an energy sector detailed report

UEENEEE125A Provide engineering solutions for problems in complex multiple path circuits problems

UEENEEE126A Provide solutions to basic engineering computational problems

UEENEED149A Provide engineering solutions to problems in complex polyphase power circuits

UETTDRTS21A Maintain interdependent network protection and control systems

UETTDRTS22A Commission interdependent network protection and control systems

UETTDRTS29A Develop power systems secondary isolation instructional documents

UETTDRTS35A Maintain complex network protection and control systems

Design Pathway Unit Group

UETTDARDS39A Prepare and manage detailed construction plans for electrical power system infrastructure

Literacy and numeracy skills 4.2)

Participants are best equipped to achieve this unit if they have reading, writing and numeracy skills indicated by the following scales. Description of each scale is given in Volume 2, Part 3 “Literacy and Numeracy”

Reading 5 Writing 5 Numeracy 5

Employability Skills Information

Employability Skills 5)

The required outcomes described in this unit of competency contain applicable facets of Employability Skills. The Employability Skills Summary of the qualification in which this unit of competency is packaged will assist in identifying Employability Skill requirements.

Elements and Performance Criteria Pre-Content

6) Elements describe the essential outcomes of a competency standard unit	Performance Criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the Evidence Guide.
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Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

- | | |
|---|--|
| <p>1 Plan for and coordinate the management of electrical infrastructure projects</p> | <p>1.1 OHS practices/procedures and environmental and sustainable energy procedures, which may influence the management of electrical infrastructure projects, are reviewed and determined.</p> <p>1.2 Purpose of the electrical infrastructure project is established and expected outcomes of the work</p> |
|---|--|

ELEMENT**PERFORMANCE CRITERIA**

- are confirmed with the appropriate personnel.
- 1.3 Organisational established procedures on policies and specifications for the electrical infrastructure project are obtained or established with the appropriate personnel.
 - 1.4 Equipment/tools and personal protective equipment 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 personal protective equipment required for the job are identified, scheduled and coordinated and confirmed in a safe and technical working order.
 - 1.9 Liaison and communication issues with other/authorised personnel, authorities, clients and land owners 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.
 - 1.11 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.

ELEMENT	PERFORMANCE CRITERIA
2 Carry out and coordinate the management of electrical infrastructure projects	1.12 Positioning of road signs, barriers and warning devices is planned in accordance with requirements.
	2.1 OHS and sustainable energy principles, functionality and practices to reduce the incidence of accidents and minimise waste are incorporated into the project in accordance with requirements and/or established procedures.
	2.2 System design decisions are made on the basis of safety and effective outcomes according to requirements and/or established procedures.
	2.3 Mathematical models of relevant networks are used to analyse the effectiveness of the finish project as per requirements and established procedures.
	2.4 Technical advice is given to 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.
	2.5 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.
	2.6 Solutions to non-routine problems are identified and actioned using acquired essential knowledge and associated skills according to requirements.
	2.7 Quality of work is monitored against personal performance agreement and/or established organisational and professional standards.
	2.8 Electrical infrastructure decisions are made on the basis of safety and effective outcomes according to requirements and/or established procedures
	2.9 Work teams/groups are arranged/coordinated/evaluated to ensure planned

ELEMENT	PERFORMANCE CRITERIA
3 Complete and coordinate the management of electrical infrastructure projects	goals are met according to established procedures.
	3.1 Final inspections of the infrastructure are undertaken to ensure they comply with all requirements and include all specifications and documentations needed to complete the design brief.
	3.2 Appropriate personnel are notified of completion and reports and/or completion documents are finalised.
	3.3 Reports and/or completion documents are submitted to relevant personnel/organisations for approval and, where applicable, statutory or regulatory approval.
	3.4 Approved copies of project documents are issued and records are updated in accordance with established procedures.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

8) Essential Knowledge and Associated Skills (EKAS): This describes the essential skills and knowledge and their level, required for this unit.

Evidence shall show that knowledge has been acquired of managing electrical infrastructure projects.

All knowledge and skills detailed in this unit should be contextualised to current industry practices and technologies.

KS01-TDS41A Electrical power systems infrastructure projects

Evidence shall show an understanding of the management of electrical power systems infrastructure projects to an extent indicated by the following aspects:

T1 Installation of overhead distribution conductors encompassing:

- Standards, codes, legislation, supply authority regulations and or enterprise requirements applicable to installing conductors and associated equipment
- Requirements for the use of overhead line construction manuals, system diagrams/plans and drawings - material lists, conductor size, type and route length.
- Constructions types and structures for distribution and sub transmission lines
- Types, sizes and characterises of overhead conductors
- Resources for the stringing and maintenance of conductors - types of low and high voltage overhead electrical conductor connections, causes and effects of poor electrical connections, reasons for and methods used to maintain standard phase sequencing, removing, repairing and replacing of damage conductors, minimum clearances between overhead conductors and low and high voltage structures.
- Techniques for conductor installation - types and application of tools, equipment and hardware, methods of stringing, tensioning and termination of low and high voltage conductors.

T2 Safe working practices and procedures for the installation of overhead distribution conductors encompassing:

- Limits of approach for personnel, vehicles, mobile plant and elevating work platforms (EWP)
- Requirements of persons prior to making bare hand contact with dead low voltage mains and apparatus
- Requirements of relevant electrical access permits necessary to allow work to be performed on low and high voltage apparatus
- Safe working practices - requirements to enable safe working on conductive poles and procedure to attach an “on-site” earthing device to de-energised low and high voltage overhead circuit

T3 Installation of poles and or structures and hardware encompassing:

- Standards, codes, legislation, supply authority regulations and or enterprise requirements applicable to installing poles and associated hardware
- Requirements for the use of enterprise construction manuals, system

REQUIRED SKILLS AND KNOWLEDGE

diagrams/plans and drawings - characteristics and applications of different types of poles and associated hardware

- Techniques for installing poles and associated hardware - types of installation equipment/tools, excavation methods, types of footings/foundations, types of attachments, earthing systems, clearances between conductors, safe methods of erecting and stabling poles and or structures and cross arms.
- Techniques for maintenance of poles and associated hardware - stabilisation techniques for unstable poles, methods of strengthen poles, maintenance and replacement of high voltage insulators and cross arms.

T4 Installation of low voltage electrical services encompassing:

- Standards, codes, legislation, supply authority regulations and or enterprise requirements
- Requirements for the use of enterprise construction manuals, system diagrams/plans and drawings - types of low voltage overhead services, methods of construction and installation, minimum clearances for overhead services to assets and structures and types of installation equipment/tools
- Characteristics and applications of different types of cables - cable cross-sectional area of conductors and current rating and fuse type
- Techniques for maintenance of service installations - diagnosis and repair of faults
- Jointing and terminating methods - polymeric heat shrink materials, polymeric tape materials, energised and de-energised cables and connections to fuse boxes and pole top boxes
- Testing and commissioning procedures - inspection and polarity, voltage and phase sequence tests
- Construction types and structures for distribution and sub transmission lines
- Types, sizes and characteristics of overhead conductors
- Resources for the stringing and maintenance of conductors - types of low and high voltage overhead electrical conductor connections, causes and effects of poor electrical connections, reasons for and methods used to maintain standard phase sequencing, removing, repairing and replacing of damage conductors and minimum clearances between overhead conductors and low and high voltage structures
- Techniques for conductor installation - types and application of tools, equipment and hardware and methods of stringing, tensioning and termination of low and high voltage conductors

T5 Procedures for installation and maintenance on transmission lines, structures and hardware encompassing:

- Standards, codes, legislation, supply authority regulations and or enterprise requirements pertaining to the installation and maintenance of transmission lines and associated equipment
- Requirements for the use of enterprise construction manuals, system diagrams/plans and drawings, encompassing: minimum construction clearances for transmission lines and sag/tension requirements

REQUIRED SKILLS AND KNOWLEDGE

- Construction types and structures used in transmission lines
- Types, sizes and characteristics of transmission conductors - aluminium conductors steel reinforced and earthing conductors
- Types of electrical connections used to connect transmission conductors - compression termination and bolted termination
- Causes and effects of poor electrical connections
- Types and application of specialised tools, equipment and hardware for the stringing of transmission conductors
- Techniques for stringing, tensioning and terminating transmission conductors
- Techniques for installation of associated hardware used on transmission towers
- Techniques for maintenance of damaged transmission conductors - repair and replacement

T6 Procedures for installation and maintenance on public lighting structures and associated equipment encompassing:

- Standards, codes, legislation, supply authority regulations, local government and or enterprise requirements pertaining to the installation and maintenance of public lighting systems and associated equipment
- Safety precautions specific to working on street lighting - safe working practices and procedures, safe clearances from LV and HV mains, working at heights, working in confined spaces, permit to work systems and isolation procedures, emergency response and rescue including First Aid etc.
- Basic public lighting principles - electromagnetic spectrum, principles of colour, behaviour of light, factors that affect illumination.
- Requirements for the use of enterprise construction manuals, system diagrams/plans and drawings - street lighting circuits, earthing system
- Types of tools and equipment used for installation and maintenance
- Types and function of lanterns/Luminaires/lamps, control equipment, poles and associated hardware used for street lighting - HP mercury vapour, LP and HP sodium vapour, fluorescent, quartz-halogen, wood, concrete, steel, composite, choke boxes, photo-electric cells, time switches, contactor boxes
- Types of lighting systems - overhead and underground street lighting systems, controlling and switching of lighting systems.
- Techniques for the installation of street lighting systems
- Techniques for the maintenance of street lighting systems - diagnosing of faults, removing, repairing, replacement and cleaning of public lighting and associated hardware.
- Application of specific testing equipment - voltage detectors, insulation resistance testers, clamp-on ammeters, continuity testers, fault indicators
- Techniques for the inspection, testing and commissioning of street lighting systems

T7 Different types and function of distribution components encompassing:

- Commonwealth/State/Territory and local government legislation, Standards,

REQUIRED SKILLS AND KNOWLEDGE

codes, supply authority regulations and or enterprise requirements applicable to the use and application of distribution components

- Requirements for the use of overhead line construction manuals, system diagrams/plans and drawings
- Types, function and characteristics of distribution components
- Safety policies and procedures precautions related to the handling and installing distribution components

T8 Principles of safe design encompassing:

- Commonwealth/State/Territory legislation, standards, codes, supply authority regulations and or enterprise requirements associated with safe design principles
- Particular reference to state and territory regulations regarding: working near energised conductors, electrical access, heights, confined space, testing procedures and Licensing rules
- Application of safe design principles - safe design duty related information, safe design process related information and safe design evaluations

T9 Low voltage switching principles encompassing:

- Standards, codes, legislation, supply authority regulations and or enterprise requirements applicable to switching of low voltage to a given schedule
- Requirements for the use of manuals, system diagrams/plans and drawings encompassing: types, characteristics and capabilities of electrical apparatus, use, characteristics and capabilities of specialised tools and testing equipment and LV network interconnectors source of possible backfeed
- Low voltage switching techniques - identifying hazards, assessing and controlling risks associated with LV switching operations, electrical access permit(s), operational procedures and earthing procedures
- Personnel protective equipment (PPE) for LV switching

T10 High voltage switching principles encompassing:

- Standards, codes, legislation, supply authority regulations and or enterprise requirements applicable to switching of high voltage to a given schedule
- Requirements for the use of manuals, system diagrams/plans and drawings - types, characteristics and capabilities of electrical apparatus, use, characteristics and capabilities of specialised tools and testing equipment and network interconnectors source of possible backfeed
- Role of the HV switching operator
- Operational forms, access authorities and permits associated with HV switching - types of operational forms, access authorities and permits, purpose and procedure for operational forms and access authorities and permits
- Use and operation of equipment associated with HV overhead and substation equipment - test instruments, sticks, interrupters and arc strangles
- Types and categories of HV switchgear
- Application, function and operating capabilities of switchgear

REQUIRED SKILLS AND KNOWLEDGE

- Restrictions pertaining to HV switching equipment
- Procedures for the isolation of HV transmission main and working earths
- Earthing HV electrical apparatus practices and procedures for access - purposes of “Operational” and additional work part “on-site” earths, factors determining the location and effectiveness of “Operational” earthing, acceptable industry procedures and personal protective equipment
- High voltage switching techniques
- Operate switching apparatus - identifying hazards, assessing and controlling risks associated with HV switchgear operation, systematic and defensive techniques, mobile radio procedures and double isolation procedures

T11 High voltage fault switching principles encompassing:

- Primary causes, effects and types of HV electrical faults
- HV protection devices - main components, types, categories, applications and functions
- Basic principle of operation of HV system protection devices
- Protection co-ordination and protection “zoning”
- HV feeder auto-reclosing suppression - function and application
- Circuit condition requirements and switching considerations when paralleling and separating HV feeders

T12 Implementation and monitoring requirements for the impact of powerline installations and operation on the environment and/or the area surrounding the powerline and/or equipment encompassing:

- Identification of relevant legislation, codes and government guidelines for the implementation and monitoring of environmental impact factors in the workplace and areas of power distribution or transmission - Commonwealth/State/Territory legislation relevant to the workplace and the Environment Protection Act legislation and common law
- Identification, assessment, control and monitoring of the hazards to the environment associated with the Powerline industry
- Workplace environment quality standards enterprise plan - setting of acceptable emission level limits from power plant equipment, impact of the enterprise activities on air and water quality, nature, impact and level of emissions from power plant, power distribution and transmission equipment and network infrastructure (noise generation, noxious gas emissions, greenhouse gas production, electromagnetic emissions, electromagnetic field strength, oil leakage, insulation breakdown products)
- Provision of manufacturers and suppliers information such as material safety data sheets (MSDSs)
- Gathering of environment management information
- Maintenance of environmental records
- Risk assessment and its management in Powerline industry
- Maintenance strategies for environment protection programs - developing

REQUIRED SKILLS AND KNOWLEDGE

processes for promoting, maintaining and improving environmental impact in the workplace and identify techniques for the evaluating and reviewing environment protection education and training programs and elements of an effective environment protection management system, EPA consultation and accident/incident investigations.

T13 Power distribution network documentation encompassing:

- Requirements for the use of manuals, system diagrams/plans and drawings and for plans such as work method statements for the control of OHS risks
- Types and application of power distribution network documentation drawings and documents - wiring and schematic diagrams, drawings and switching symbols, mechanical drawings dealing with the power distribution network, project charts, schedules, graphs, technical manuals and catalogues, instruction/worksheets sheets.
- Interpretation of different diagrams and documentation on LV and HV systems - overhead distribution extensions, underground distribution extensions, distribution substation, street lighting system.

T14 Layout principles for overhead distribution encompassing:

- Commonwealth, State/Territory and local government legislation, Standards, codes, supply authority regulations and or enterprise requirements applicable to overhead distribution layout
- Requirements for the use of overhead line construction manuals, system diagrams/plans and drawings and for plans such as work method statements for the control of OHS risks
- Methods in determining material, equipment and tool lists - components types and quantity required, spacing of components such as equipment, poles, cross-arms, costings of items and components.
- Purchasing and contractual arrangements to include a requirement to eliminate OHS hazards, minimise risks and provide residual OHS risk information
- Determination of conductor size, type and route length –
- Resources needed for the stringing and maintenance of conductors
- Types of low LV and HV overhead electrical conductor connections
- Minimum clearances between overhead conductors and low LV and/HV structures
- Estimation of the duration of overhead distribution extension project

T15 Fundamentals of surveying for the purpose of producing an overhead or underground distribution extension encompassing:

- Commonwealth, State/Territory and local government legislation, Standards, codes, supply and aviation authority regulations and or enterprise requirements applicable to the surveying for an overhead and underground extension
- Techniques in measuring heights and distances
- Techniques in taking bearings angles of deviation using a compass
- Techniques in using a clinometer
- Techniques in recording and storage of data

REQUIRED SKILLS AND KNOWLEDGE

- Requirements for the use of overhead line construction manuals, system diagrams/plans and drawings
- Techniques in plotting long spans - measuring stick, clinometer, trundle wheel, tapes, correction for sloping ground, distance across objects and range rods
- Techniques in pegging pole positions – foot path alignments, types of pegs, pegs of other authorities and locating survey pegs

T16 Project management encompassing:

- Commonwealth, State and local government legislation, standards, codes, supply authority regulations and or enterprise requirements including relevant certification and licensing applicable to the duties and responsibilities for management a project
- Analyse functions of project management to determine achievement of project objectives
- Relationship of stakeholders to the project
- Techniques in development of project plan encompassing: project integration, scope, timelines, cost, quality, resources, communication/protocol requirements, risk/uncertainties and procurement and contacting
- Relationship between project processes, project life and project phases
- Planning and control procedures, resource management and risk management
- Techniques, methodologies and tools available to project managers
- Types of internal and external environmental factors that may affect the project

Evidence Guide

EVIDENCE GUIDE

9) This provides essential advice for assessment of the unit of competency and must be read in conjunction with the Performance Criteria and the range statement of the unit of competency and the Training Package Assessment Guidelines.

The Evidence Guide forms an integral part of this Competency Standard Unit and shall be used in conjunction with all component parts of this unit and, performed in accordance with the Assessment Guidelines of this Training Package.

Overview of Assessment 9.1)

Longitudinal competency development approaches to assessment, such as Profiling, require data to be reliably gathered in a form that can be consistently interpreted over time. This approach is best utilised in Apprenticeship programs and reduces assessment

intervention. It is the Industry's preferred model for apprenticeships. However, where summative (or final) assessment is used it is to include the application of the competency in the normal work environment or, at a minimum, the application of the competency in a realistically simulated work environment. It is recognised that, in some circumstances, assessment in part or full can occur outside the workplace. However, it must be in accord with Industry and, Regulatory policy in this regard.

Methods chosen for a particular assessment will be influenced by various factors. These include the extent of the assessment, the most effective locations for the assessment activities to take place, access to physical resources, additional safety measures that may be required and the critical nature of the competencies being assessed.

The critical safety nature of working with electricity, electrical equipment, gas or any other hazardous substance/material carries risk in deeming a person competent. Hence, sources of evidence need to be 'rich' in nature so as to minimise error in judgment.

Activities associated with normal every day work have a bearing on the decision as to how much and how detailed the data gathered will contribute to its 'richness'. Some skills are more critical to safety and operational requirements while the same skills may be more or less frequently practiced. These points are raised for the assessors to consider when choosing an assessment method and developing assessment instruments. Sample assessment instruments are included for Assessors in the Assessment Guidelines of this Training Package.

**Critical aspects
of evidence
required to
demonstrate
competency in
this unit**

9.2)

Before the critical aspects of evidence are considered all prerequisites shall be met.

Evidence for competence in this unit shall be considered holistically. Each element and associated Performance Criteria shall be demonstrated on at least two occasions in accordance with the "Assessment Guidelines – UET12UET12". Evidence shall also comprise:

- A representative body of Performance Criteria demonstrated within the timeframes typically expected of the discipline, work function and industrial environment. In particular this

shall incorporate evidence that shows a candidate is able to:

- Implement Occupational Health and Safety workplace procedures and practices including the use of risk control measures as specified in the Performance Criteria and range; and
- Apply sustainable energy principles and practices as specified in the Performance Criteria and range; and
- Demonstrate an understanding of the essential knowledge and associated skills as described in this unit to such an extent that the learner's performance outcome is reported in accordance with the preferred approach; namely a percentile graded result, where required by the regulated environment; and
- Demonstrate an appropriate level of employability skills; and
- Conduct work observing the relevant Anti Discrimination legislation, regulations, policies and workplace procedures; and
- Demonstrated performance across a representative range of contexts from the prescribed items below:

Range of tools/equipment/materials/procedures/workplaces/other variables		
Group No	The minimum number of items on which skill is to be demonstrated	Item List
A	Manage at least six (6) projects that, each encompass at least twenty (20) identifiable tasks and that relate to four (4) the following project types:	Distribution overhead projects Distribution underground projects Distribution substations projects Public lighting projects Zone substation projects Transmission substation primary systems projects Transmission overhead projects

		Transmission underground projects Substations secondary system projects Generation secondary system projects
B	At least one occasion	Dealing with an unplanned event by drawing on essential knowledge and associated skills to provide appropriate solutions incorporated in the holistic assessment with the above listed items.

Context of and specific resources for assessment

9.3)

This unit should be assessed as it relates to normal work practice using procedures, information and resources typical of a workplace. This should include:

- OHS policy and work procedures and instructions.
- Suitable work environment, facilities, equipment and materials to undertake actual management of electrical infrastructure projects

In addition to the resources listed above, in Context of and specific resources for assessment, evidence should show demonstrated competency working realistic environment and a variety of conditions.

Method of assessment

9.4)

This Competency Standard Unit shall be assessed by methods given in Volume 1, Part 3 “Assessment Guidelines”.

Note:

Competent performance with inherent safe working practices is expected in the Industry to which this Competency Standard Unit

applies. This requires that the specified essential knowledge and associated skills are assessed in a structured environment which is primarily intended for learning/assessment and incorporates all necessary equipment and facilities for learners to develop and demonstrate the essential knowledge and associated skills described in this unit.

**Concurrent
assessment and
relationship with
other units**

9.5)

There are no recommended concurrencies for this unit.

Range Statement

RANGE STATEMENT

10) This relates to the unit of competency as a whole providing the range of contexts and conditions to which the Performance Criteria apply. It allows for different work environments and situations that will affect performance.

This Competency Standard Unit shall be demonstrated in relation to the management of electrical infrastructure projects and may include the following: contract and in-house workforces, project management software.

The following constants and variables included in the element/Performance Criteria in this unit are fully described in the Definitions Section 1 of this volume and form an integral part of the Range Statement of this unit:

- Appropriate and relevant persons (see Personnel)
- Appropriate authorities
- Appropriate work platform
- Assessing risk
- Assessment
- Authorisation
- Confined space
- Diagnostic, testing and restoration
- Documenting detail work events, record keeping and or storage of information
- Drawings and specifications
- Emergency
- Environmental and sustainable energy procedures
- Environmental legislation
- Environmental management documentation
- Established procedures
- Fall prevention
- Hazards
- Identifying hazards
- Inspect
- Legislation
- MSDS
- Notification
- OHS practices
- OHS issues
- Permits and/or permits to work
- Personnel
- Quality assurance systems

RANGE STATEMENT

- Requirements
- Safe design principles
- Testing procedures
- Work clearance systems

Unit Sector(s)

Not applicable.

Competency Field

Competency Field **11)**
Design.