Skills and Training Guideline

This guideline has been developed by the Victorian Electricity Supply Industry (VESI) Skills and Training Reference Committee (STRC)

In the Victorian Electricity Supply Industry

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Contents

1. Introduction

The Victorian Electricity Supply Industry (VESI) Skills and Training Guideline has been developed to establish the minimum standards for Qualifications and competency assessment / refresher training for field workers working in the VESI.

2. Purpose

The purpose of the VESI Skills and Training Guideline is to:

- provide an agreed standard common to all VESI Network Operators
- specify the minimum Qualification and competency assessment / refresher training requirements for access to the VESI Networks
- provide an agreed set of learning outcomes and assessment criteria for VESI specified training and where applicable be consistent with Nationally endorsed Competency Standard Units (CSU's)

3. Scope

This guideline applies to Network Operators, Contractors and their sub-contractors working on the Distribution & Transmission Networks in Victoria.

4. VESI Skills and Training Matrix

There are two skills and training matrixes which set out the minimum requirements for workers working on, near, or in the vicinity of the VESI Networks, the matrixes are:

- VESI skills and training matrix
- VESI Vegetation skills and training matrix

The requirements outlined in this guideline and the Skills & Training matrixes are the minimum qualification and competency assessment / refresher training requirements for VESI workers working on or near Distribution & Transmission Networks in Victoria and therefore, apply to Network Operators their contractors and sub-contractors. These matrixes and any specific Network Operator requirements shall be referenced whenever training is required for existing or new workers. All training shall be in place prior to work being performed unless specified in this guideline or by the Network Operator.

Where there is a change in a National Qualification and/or Competency Standard Unit name or code the Skills & Training matrixes will be updated to reflect this change. Registered Training Organisation's (RTO's) are required to update their scope of registration to meet Australian Qualification Framework (AQF) requirements including teach out timeframes. Previous National Qualifications and Competency Standard Unit equivalents will still be recognised and where the training requires competency assessment / refresher training, this assessment / training will meet the requirements of the new or updated unit.

The roles identified in the matrixes are those that are commonly used in the VESI. The descriptions of each of the roles are identified in Appendix 1 of this guideline.

Where a person performs multiple roles (e.g. Lineworker, HV Switching Operator) they shall undertake the mandatory training for each of those roles.

Network Operators may determine further competency assessment / refresher training, authorisations, and induction requirements for a specific role.

Where training for roles not identified in the matrix or where additional tasks are required these requirements should be established with the Network Operator.

5. Training Frequency

The workers training shall be current at all times and each subject shall be re-assessed prior to the frequency specified in the matrixes.

Where training cannot be achieved within the designated timeframe the employer is to consult with the relevant Network Operator/s.

6. Qualifications

All workers shall be Qualified, if applicable, for the role they are undertaking. All Qualifications should meet the Australian Qualification Framework (AQF) requirements or previous equivalent. For the evidence to be equivalent it shall consist of a record of qualification previously issued by a State Government or Enterprise e.g. SECV that was applicable in that jurisdiction (this may be supported by evidence of training results and/or work history). This evidence of qualification shall be reviewed and verified by the Network Operator.

Where a Qualification has been gained interstate or overseas the employer shall follow the requirements of the VESI Guideline for Interstate and Overseas Qualified workers and workers re-entering the workforce.

Under no circumstances shall non-qualified persons undertake work that requires a Qualification.

7. Electrical Licensing

All applicable workers shall be licenced for the work activity they are undertaking. Electrical Licensing is administered by Energy Safe Victoria (ESV), please refer to the ESV website for Licensing information.

8. High Risk Work Licensing

A high-risk work licence allows you to work with certain high-risk equipment and plant. In Victoria this is administered by Worksafe Victoria. It is expected that only licence holders operate plant or perform tasks that are stipulated by a high-risk licence.

As the licence has an expiry date, all licences must be current prior to work on or near the network.

9. Delivery of Training

The following principles shall be applied in the delivery of training:

- All initial National Competency Standard Units shall be delivered by a Registered Training Organisation (RTO) whose scope of registration includes the required competencies and is able to demonstrate vocational competence and experience in the subject matter. All RTOs shall meet the standards as outlined in the Australian Quality Training Framework (AQTF).
- Competency assessment / refresher training can be delivered by persons with a valid Certificate IV in Training and Assessment or equivalent meeting ASQA and any units of competence requirements working under an RTO. For specified training in Appendix 2 – Training Modules / Competency Standard Units an RTO shall deliver the competency assessment / refresher training.
- Training which is not nationally endorsed shall be delivered by a person who holds as a minimum a valid Certificate IV in Training and Assessment or equivalent which meets current ASQA requirements and is able to demonstrate vocational competence and experience in the subject matter of the training they are delivering.

Note: In circumstances where the training is being undertaken to meet multiple clients e.g. interstate Network Operators and VESI, it is the employer's responsibility to ensure with the

Training Provider, that the training and certificate / Statement of Attainment (SOA) outcomes cover all of their client requirements.

10. Training and Assessment Requirements

The STRC has established standard training and assessment requirements for the training identified in the matrixes. The selection of National Competencies and modules in Appendix 2 is based on an individual's role and relative to the work being performed.

The training modules are written for competency assessment / refresher training and where identified the module can be used for initial training. The competency assessment should include all assessment criteria unless otherwise stated.

Where a module descriptor or CSU is used for initial training, consideration shall be given to other pre-requisites / competencies required.

Training Providers shall ensure that they can deliver the training outcomes and criteria as per Appendix 2 – Training Modules / Competency Standard Unit of this guideline and have available the appropriate plant, tools, and equipment for the worker to demonstrate competency.

Where the Assessment criteria refers to a VESI document (e.g. Fieldworker Handbook), Network Operator or Employer procedure; that document or procedure should be utilised. Employers should ensure: -

- That the training provider they engage is familiar with all such procedures.
- Training providers include reference to the appropriate procedures in there training delivery.

11. Apprentices & Trainees

It is acknowledged by the STRC that initial training e.g. Trade school (TAFE) for Apprentices and Trainees may not start for a period of time after employment.

VESI specific training for the role may be incorporated in this initial training (e.g. Lineworker) and therefore may lead to a delay in the apprentice / trainee having the required competencies to access the field.

Where VESI mandatory training is not incorporated in the initial / Tafe training for the role (e.g. Electrician, Protection Tester), the VESI training shall be completed within two months of employment.

In these circumstances to enable the apprentice and/or trainee to enter the field under direct supervision the Minimum Access Requirements below shall be adhered to until the required VESI training is completed.

At all times during the term of an Apprenticeship / Traineeship, the apprentice / trainee shall be under Direct, General or Broad Supervision as defined in the VESI Supervision Guidelines for the applicable role.

Minimum Access Requirements for first year apprentices and trainees:

- Have completed training in the National competency – Prepare to Work safely in the construction industry (White card or equivalent) - CPCCWHS1001 Hold an ESI worker's card
- Undertake a Network Operator Induction
- Shall not undertake any task (e.g. working aloft in an EWP) until the required training is completed (e.g. EWP escape).
- Shall not work on or near live apparatus
- Be under the Direct Supervision of a trade worker at all times

After having successfully completed the initial training, it is the responsibility of the employer to ensure that Apprentices / Trainees complete the competency assessment / refresher Training applicable to their role as per the matrixes.

12. Records / Evidence

Where a National Competency Standard Unit is identified in this guideline / matrix for initial training a Statement of Attainment shall be issued by the RTO meeting ASQA requirements.

Where competency assessment / refresher training is based on a Competency Standard Unit or a VESI training module the evidence required is a training record.

Training records could include a current copy of a training report, a Statement of Attainment, or a certificate of completion. This evidence shall include the following:

- Individual's Name
- Training Provider Name
- Training course name as per the VESI Skills and Training matrix
- Course completion
- Date competency achieved
- Trainer and/or Training Provider signature

Note: Records that indicate attendance only will not be accepted.

All records shall be verified in the ESI worker system in alignment with the business rules.

13. ESI Worker System

ESI worker is a program which provides an industry-consistent record of an individual's Qualification, training, authorisations, and network inductions to work in the Victorian Electricity Supply Industry (VESI).

The ESI Worker system applies to all VESI workers who:

- hold an authority issued by a Victorian Network Operator; and/or
- are required by a Victorian Network Operator to undertake any training and/or assessment for field-based activities consistent with the VESI Skills and Training matrix

All employers will ensure that their employee's, contractors, and sub-contractors who meet these criteria are compliant for their role/s in the ESI worker system.

To seek further information on the ESI worker system and access user guides please refer to the ESI Worker website.

14. Continuous Improvement

Suggestions for improvement to this guideline can be submitted via the Contact Us link on the VESI Skills and Training webpage. Suggestions will be considered by the STRC for incorporation.

Any changes to this document can only be made by consensus agreement between the Network Operators.

15. Definitions

Equivalent	A situation where a learning framework and outcome from one period of time is treated as equal to a current training outcome, e.g. a pre-AQF state or enterprise-based certificate of proficiency is treated as equal to a current qualification. It is important to note, that the specifics of the learning may not be the same, but the trade qualification outcomes are treated as equal. The primary purpose of the equivalency rule, is to ensure that workers trained under previous systems are not unfairly treated in the current AQF environment.
Refresher training	Training to compensate for or prevent deterioration in a previously achieved standard of performance. Usually undertaken at a set frequency.
Telecommunication corridor	The area greater than 1000mm below bare overhead LV Network Operator assets or 2000mm below bare overhead HV Network Operator assets
The Blue Book	Code of Practice on electrical safety for the work on or near high voltage electrical apparatus
The Green Book	Electrical Safety Rules for the VESI Distribution Networks
Workers	Employees, Contractors, and Sub-contractors of a Network Operator.

Appendix 1 – Skills and Training Matrix Role Descriptions

Roles of Worker		Description of Work
Asset Inspector		Engaged in asset inspection, pole testing and data capture
Auditor	**General**	Engaged in Quality (Asset) and Compliance (HS&E) Field Auditing
	Underground	Engaged in Quality (Asset) Auditing of Underground Infrastructure
Cable Hauler		Engaged in the laying of LV &/or HV underground mains cables
Cable Jointer		Engaged in the laying & Jointing of LV & HV cables and carrying out Live LV cable jointing
Civil Worker		A person undertaking civil work not in a Zone/Terminal substation environment Could include but not limited to workers undertaking trenching, laying LV service cable etc.
Civil Worker - Zone and Terminal Substations		A person undertaking civil work in a Zone and/or Terminal Substation Could include but not limited to workers undertaking trenching, concreting, building works etc.
Communication worker	**HV/LV Enclosures**	Engaged in the installation and/or maintenance of Fibre Optic Cable and/or Communication equipment and/or Supervisory Control and Data Acquisition (SCADA) equipment for the VESI Network Operator in an enclosure
	Pole work	Engaged in the installation and/or maintenance of Fibre Optic Cable and communication equipment in the Telecommunication corridor on pole infrastructure for the VESI Network Operator
	Tower work	Engaged in the installation and/or maintenance of Fibre Optic Cable and communication equipment on tower infrastructure for the VESI Network Operator, this may include radio towers
Electrical inspector		Engaged in compliance inspections of customers LV and/or HV installations
HV Switching Operator	**Distribution**	Describes a person whose duties are to switch HV/LV Distribution apparatus up to and including 22kV external to a Zone Substation and/or Terminal Station. The class of Authority is defined by the Network Operator
	Terminal & Zone Substations	Describes a person whose duties are to switch Zone Substations and/or Terminal Station apparatus. The class of Authority is defined by the Network Operator

Roles of Worker		Description of Work
Lineworker	**Distribution**	Lineworker engaged in working on distribution and sub transmission assets
	Transmission	Lineworker engaged in working on transmission assets
Lineworker Distribution HV Live Work		Lineworker – Distribution, undertaking HV live work Glove and Barrier and/or Stick method
Meter Technician		An electrical worker engaged in the installation, maintenance or testing of direct, C/T and/or HV metering installations for the purpose of point of supply revenue metering
No Go Zone Assessor		A person who is approved by the Network Operator to grant permission for third party workers to work near overhead and Underground Network Assets
Plant operator	**Day hire**	A person operating plant under direct supervision by a qualified worker for a specific task on a short-term basis e.g. crane
	ESI worker	A person whose duties are primarily operating ESI mobile plant on or near ESI infrastructure e.g. Pole Erection Recovery Unit (PERU), excavator
Rigger	**General**	Engaged in general Rigging work other than on towers
	Towers	Engaged in general Rigging work on tower infrastructure
Substation Electrician / Fitter	**Distribution**	Electricians, Electrical Fitter / Mechanics working on ESI distribution network infrastructure
	Terminal & Zone Substations	Electricians, Electrical Fitter / Mechanics working on ESI network infrastructure, in zone substations and or terminal stations
Supervisor / Team Leader		Team Leader / Supervisor not actively engaged in field work. Note: If the Team Leader / Supervisor is engaged in other work they must also have that role
Supervisor / Team leader - Stations		Team Leader / Supervisor of workers in zone substations and or terminal stations. Note: If the Team Leader / Supervisor is engaged in other work they must also have that role
Technical Officer / Maintenance worker		A person who requires access to an electrical environment including entry to HV/LV enclosures for the purposes of inspection, auditing, or grounds maintenance. Can include but not limited to Engineers, Draftsperson, Project managers/Planners, Surveyors, fire service technician, gardener, store person, driver, OHS Coordinator, trainer, manager etc.
Terminal and Zone Substation Transformer Technician		A person undertaking installation, repair or removal of Transformers in a Terminal and Zone Substations
Tester	**Distribution Assets**	Includes field protection devices & cable testing
	Terminal & Zone Substations	Includes testing associated with Transmission & Distribution equipment & / or protection and control circuits

Trade Assistant		A person with no electrical qualification undertaking support work with qualified ESI workers. Restricted to ground support function only. Note: Please refer to your Network operator regarding, if this role is applicable for the task being undertaken
Vegetation	**Arborist**	Engaged in the VESI to assess hazardous trees. Arborists shall meet the qualification requirements as stated in the Electricity Safety (Electric Line Clearance) Regulations: *Suitably qualified arborist means an arborist who has:* *(a) as a minimum, the qualification of National Certificate III in Arboriculture including "Perform a ground-based tree defect evaluation" unit of competency, or an equivalent qualification; and* *(b) at least 3 years of field experience in assessing trees*
	Assessor	Engaged in assessing and scoping vegetation near live electrical apparatus. Determine cutting requirements to confirm compliance for vegetation near live electrical apparatus
	Chipper Operator	Engaged in operating a woodchipper to process trees and branches that have been cut from around powerlines
	Cutter working at ground level	Engaged in vegetation control work at ground level
	Cutter working from EWP	Engaged in vegetation control work from an Elevated Work Platform (EWP)
	Ground Based Plant Operator	Engaged in operating plant for the purpose of controlling vegetation from the ground with no risk of breaching SAD's, such as a tractor slasher or forest mower/mulcher
	Herbicide worker	Engaged in vegetation control work by applying herbicide at ground level
	Mechanical tree trimmer / Hedger	Engaged in vegetation control work from the ground using specialised plant e.g., Mechanical tree trimmer / Hedger
	Tree Climber	Engaged in vegetation control work from a tree

Appendix 2 – Training Modules / Competency Standard Units

Annual Assessments

Attached Climbing for Tower Work

Module purpose	This module provides the learner with the knowledge and skills to climb towers using the attached climbing method This module can be used for both refresher training and initial training
For whom	All workers required to climb towers
Frequency	Annual
Summary of content	• Visual inspection and attachment of equipment • Correctly ascending a tower • Correctly descends a tower
Learning outcomes	On successful completion of this module the learner should be able to:
Learning Outcome 1	Demonstrate correct visual inspection of equipment
Assessment Criteria	1.1 Perform visual inspection of harness, lanyards and associated fall prevention devices. 1.2 Perform check for correct operation of fall prevention devices.
Learning Outcome 2	Demonstrate correct attached climbing techniques
Assessment Criteria	2.1 Demonstrate tower ascent with one lanyard always attached to an acceptable anchor point* 2.2 Demonstrate correct attachment of pole strap or both lanyards when in final work position 2.3 Demonstrate the skill required to move to different work locations on the tower whilst attached at all times 2.4 Demonstrate correct descent of the tower with one restraining lanyard attached to an acceptable anchor point at all times

Learning Outcome 3	Demonstrate correct use of installed fall arrest systems
Assessment Criteria	3.1 Perform inspection of fixed fall arrest system
	3.2 Demonstrate the correct use of a fixed fall arrest system while ascending a tower
	3.3 Demonstrate the correct technique of transferring from a fixed fall arrest system to work position and back on to a fixed fall arrest system
	3.4 Demonstrate the correct use of a fixed fall arrest system to descend from a tower.
Learning Outcome 4	Demonstrate correct use of fall arrest rope
Assessment Criteria	4.1 Perform inspection of fall arrest rope
	4.2 Demonstrate the correct use of a fall arrest rope while ascending a tower
	4.3 Demonstrate the correct technique of transferring from a fall arrest rope to work position and back on to a fixed fall arrest system
	4.4 Demonstrate the correct us of a fall arrest system to descend from a tower.

* Should include knowledge of safe approach distances for instructed and authorised persons

Module purpose	This module provides the learner with the knowledge and skills to safely assist a High Voltage (HV) Live Work crew in the installation, replacement, removal and maintenance of poles and associated electrical apparatus (e.g. HV switch replacement) up to 66kV
For whom	Pole Erection Recovery Unit (PERU) Operator who has the appropriate mobile plant licence and experience in the use of Pole Erection Recovery Units in the Electrical Supply Industry and who are not trained HV Live Lineworkers
Frequency	Yearly
Delivery	Shall be delivered by an RTO for initial, competency assessment and refresher training
Summary of content	• The Green Book • Australian Standards for HV Live Working • VESI Minimum Rules for Carrying out High Voltage Live Work in Victoria • Relevant Enterprise HV Live Work manual, policy, and procedures • Risk / Hazard assessment • Role and responsibility of the “Safety Observer” • General safety work practices • Minimum Approach Distances (MAD) • Step & Touch Potential • Suitable Structures for pole replacement work • Suitable Structures for electrical apparatus replacement work • Mobile Plant Earthing and Bonding • Setting up the Pole Erection Recovery Unit • Jib Positioning & Lifting Operation • Barriers and Cover up Equipment
Learning outcomes	On successful completion of the module the learner should be able to:
Learning outcome 1	Identify the relevant Australian Standards, VESI HV Live Work rules, safety instructions and general safe work practices and procedures for High Voltage Live Work techniques related to the installation, replacement, removal and maintenance of poles and associated electrical apparatus
Assessment criteria	1.1 Identify the clauses within The Green Book relating to HV Live Work

	1.2 Identify the relevant information in the Australian Standards, VESI Minimum Rules for Carrying out High Voltage Live Work in Victoria and enterprise Live Work manuals and procedures
	1.3 Define the Safe Work Method Statement (SWMS) and risk/job safety assessment process required prior to undertaking a HV Live Work task
Learning outcome 2	Plan and prepare to carry out, Live Work associated with the Installation, replacement, removal and maintenance of poles and associated electrical apparatus
Assessment criteria	2.1 Define the responsibilities of workers associated with the HV Live Work
	2.2 Identify the common risks and controls appropriate to the task
	2.3 State the responsibilities of the “Safety Observer” within the HV Live Work task
	2.4 Identify suitable structures associated with the HV Live Work
	2.5 Identify the minimum approach distances observed by workers plant and associated equipment when approaching exposed live HV conductors
	2.6 Identify items of equipment used for HV live pole replacement work
	2.7 Identify the general work practice and procedure including Barriers, cover up, plant earthing and bonding associated with HV live work
	2.8 Identify the step and touch potential risks and controls
Learning outcome 3	Carry out the installation and/or replacement of a HV pole in conjunction with a HV Live Work crew under live or simulated live conditions
Assessment criteria	3.1 Identify and document the risks and controls appropriate to the task
	3.2 Identify the equipment required to install and/or replace a live HV pole
	3.3 Identify the method required to install and/or replace a live HV pole
	3.4 Demonstrate the required set up of the PERU including earthing requirements and jib positioning
	3.5 Perform appropriate work methods to replace/install a HV pole and associated hardware with conductors energised using correct HV Live Work methods
	3.6 Demonstrate the required minimum approach distances and safety procedures

Module purpose	This module provides the learner with the knowledge and skills to safely assist a High Voltage (HV) Live Work crew in the Installation, replacement, removal and maintenance of electrical apparatus tasks (e.g. HV switches) in the vicinity of Live HV apparatus up to 66kV
For whom	Vehicle loading crane operator who has the appropriate licence and experience in the use of Vehicle loading Cranes in the Electrical Supply Industry and who are not trained HV Live Lineworkers
Frequency	Yearly
Delivery	Shall be delivered by an RTO for initial, competency assessment and refresher training
Summary of content	• The Green Book • Australian Standards for HV Live Working • VESI Minimum Rules for Carrying out High Voltage Live Work in Victoria • Relevant Enterprise HV Live Work manual, policy, and procedures • Risk / Hazard assessment • Role and responsibility of the “Safety Observer” • General safety work practices • Minimum Approach Distances (MAD) • Step & Touch Potential • Suitable Structures for electrical apparatus replacement work • Mobile Plant Earthing and Bonding • Setting up the vehicle loading crane • Jib Positioning & Lifting Operation • Barriers and Cover up Equipment
Learning outcomes	On successful completion of the module the learner should be able to:
Learning outcome 1	Identify the relevant Australian Standards, VESI HV Live Work rules, safety instructions and general safe work practices and procedures for High Voltage Live Work techniques related to the Installation, replacement, removal, and maintenance of electrical apparatus
Assessment criteria	1.1 Identify the clauses within The Green Book relating to HV Live Work 1.2 Identify the relevant information in the Australian Standards, VESI Minimum Rules for Carrying out High Voltage Live Work in Victoria and enterprise Live Work manuals and procedures

	1.3 Define the Safe Work Method Statement and risk/job safety assessment process required prior to undertaking a HV Live Work task
Learning outcome 2	Plan and prepare to carry out the installation, replacement, removal and maintenance of electrical apparatus in the vicinity of Live HV apparatus
Assessment criteria	2.1 Define the responsibilities of workers associated with the Installation, replacement, and removal of electrical apparatus
	2.2 Identify the common risks and controls appropriate to the task
	2.3 State the responsibilities of the Safety Observer
	2.4 Identify suitable structures for the installation, replacement, and removal of electrical apparatus
	2.5 Identify the minimum approach distances observed by workers plant and associated equipment when approaching exposed live HV conductors
	2.6 Identify items of equipment used for the Installation, replacement, and removal of electrical apparatus
	2.7 Identify the general work practice and procedure including barriers, cover up, plant earthing and bonding associated with HV Live work
	2.8 Identify the step and touch potential risks and controls
Learning outcome 3	Carry out the Installation, replacement, and removal of electrical apparatus in conjunction with a HV Live Work crew under live or simulated live conditions
Assessment criteria	3.1 Identify and document the risks and controls appropriate to the task
	3.2 Identify the equipment required to install, replace, and remove electrical apparatus
	3.3 Identify the method required to install, replace, and remove electrical apparatus
	3.4 Demonstrate the required set up of the vehicle loading crane including earthing requirements and jib positioning
	3.5 Perform appropriate work methods to install, replace and remove electrical apparatus with conductors energised using correct Live Work methods
	3.6 Demonstrate the required minimum approach distances and safety procedures

Limited High Voltage Live Work (Vegetation Control)

Module purpose	This module provides the learner with the knowledge and skills to safely perform High Voltage (HV) limited stick tasks up to and including 22KV for the purpose of vegetation control The course involves the limited use of HV live work equipment such as hand sticks, fitting of conductor covers and insulated control ropes to facilitate the moving of HV conductors away from vegetation but does not allow actual work to be performed on conductors or the un-securing of conductors from a structure
For whom	Qualified Line workers who are required to undertake vegetation work near Live HV overhead conductors and who are not already trained in HV Live work. This module is subject to prior Network Operator approval
Frequency	Yearly
Delivery	Shall be delivered by an RTO for initial, competency assessment and refresher training. Refer to the VESI Minimum Rules for Carrying out HV Live Work for anticipated minimum time frames for annual competency assessments
Summary of content	• The Green Book • HV Live Working Australian Standards • VESI Minimum Rules for Carrying out High Voltage Live Work in Victoria • Relevant Enterprise HV Live Work manual, policy, and procedure • Risk / Hazard assessment • Role and responsibility of the “Safety Observer” • General safety work practices • Minimum Approach Distances • HV Live work tools and equipment
Learning outcomes	On successful completion of the module the learner should be able to:
Learning outcome 1	Identify the relevant Australian Standards, VESI HV Live Work rules and general safe work practices and procedures to undertake HV Live work techniques
Assessment criteria	1.1 Identify the clauses within The Green Book relating to Live line work 1.2 Identify the relevant HV Live Working Australian Standards

	1.3 Identify the relevant information in the VESI Minimum Rules for Carrying out High Voltage Live Work in Victoria and enterprise HV live Work manuals and procedures
	1.4 Define the Safe work Method statement and risk/job safety assessment process required prior to undertaking a HV Live work task
	1.5 Identify the communication and application requirements with the control room to perform HV live work according to established enterprise procedures
	1.6 Define the process for incident reporting according to established enterprise procedures
Learning outcome 2	Plan and prepare to carry out High Voltage Live Work for Vegetation Control
Assessment criteria	2.1 Define the responsibilities of workers associated with the HV Live Work Vegetation control
	2.2 Identify the minimum approach distances observed by workers, plant and Live Line tools when approaching exposed live high voltage conductors
	2.3 Identify the equipment required to perform limited HV live work including the clearing of vegetation in proximity to live HV conductors
	2.4 Identify the methods required to perform the vegetation clearing tasks
	2.5 Define the care, maintenance and testing requirements for Live Line equipment to be utilised
	2.6 Identify the general work practice and procedure for plant earthing and bonding associated with HV live work
	2.7 Identify the step and touch potential risks and controls

Learning outcome 3	Identify the requirements and responsibilities of a Safety Observer in relation to HV Live work
Assessment criteria	3.1 Identify the roles and responsibilities of a safety observer/s during a HV Live work task 3.2 Identify environmental influences that may contribute to distraction of a safety observer 3.3 Identify the ergonomic requirements in relation to the positioning of the safety observer to be and remain effective 3.4 Identify methods of communication between the safety observer and the HV Live work crew
Learning outcome 4	Carry out High Voltage Live Work for Vegetation Control tasks
Assessment criteria	4.1 Identify the equipment required to perform limited HV live work including the clearing of vegetation in proximity to live HV conductors 4.2 Identify the methods required to perform the vegetation clearing tasks 4.3 Identify and document the risks and controls appropriate to the task 4.4 Demonstrate the communication requirements to perform HV live work with the Control Centre 4.5 Demonstrate the required skills and knowledge to perform vegetation clearing tasks in a variety of situations in line with the VESI “Minimum Rules for carrying out High Voltage Live Work in Victoria” document including the: ~ Fitting of HV covers to conductors ~ Fitting of insulated control ropes to move/restrain conductors to provide clearance to vegetation ~ Use of insulated hand sticks to control conductors or vegetation 4.6 Perform and demonstrate competence in vegetation clearing tasks in various situations where the vegetation to be removed is: ~ below the conductors, ~ adjacent to the conductors ~ above the conductors 4.7 Demonstrate the required minimum approach distances and safety precautions

Maintain energised high voltage distribution overhead electrical apparatus (glove and barrier) – UETDRDO003

This Competency Standard Unit is published at www.training.gov.au

Frequency	Annual
Delivery	This Competency Standard Unit shall be delivered by an RTO for initial, competency assessment and refresher training. Refer to the VESI Minimum Rules for Carrying out HV Live Work for anticipated minimum time frames for annual competency assessments

Maintain energised high voltage distribution overhead electrical apparatus (stick) – UETDRDO004

This Competency Standard Unit is published at www.training.gov.au

Frequency	Annual
Delivery	This Competency Standard Unit shall be delivered by an RTO for initial, competency assessment and refresher training. Refer to the VESI Minimum Rules for Carrying out HV Live Work for anticipated minimum time frames for annual competency assessments

Maintain energised transmission lines using high voltage live work bare hand techniques - UETDRTO011

This Competency Standard Unit is published at www.training.gov.au

Frequency	Annual
Delivery	This Competency Standard Unit shall be delivered by an RTO for initial, competency assessment and refresher training. Refer to the VESI Minimum Rules for Carrying out HV Live Work for anticipated minimum time frames for annual competency assessments

Maintain energised transmission lines using live work stick techniques - UETDRTO012

This Competency Standard Unit is published at www.training.gov.au

Frequency	Annual
Delivery	This Competency Standard Unit shall be delivered by an RTO for initial, competency assessment and refresher training. Refer to the VESI Minimum Rules for Carrying out HV Live Work for anticipated minimum time frames for annual competency assessments

Perform cable pit / trench / excavation rescue - UETDRMP003

This Competency Standard Unit is published at www.training.gov.au

Frequency	Annual
Delivery	This Competency Standard Unit shall be delivered by an RTO for initial, competency assessment and refresher training.

Perform elevated work platform controlled descent escape - UETDRMP004

This Competency Standard Unit is published at www.training.gov.au

Frequency	Annual
Delivery	This Competency Standard Unit shall be delivered by an RTO for initial, competency assessment and refresher training.

Perform elevated work platform rescue – UETDRMP005

This Competency Standard Unit is published at www.training.gov.au

Frequency	Annual
Delivery	This Competency Standard Unit shall be delivered by an RTO for initial, competency assessment and refresher training.

Perform pole top rescue - UETDRMP006

This Competency Standard Unit is published at www.training.gov.au

Frequency	Annual
Delivery	This Competency Standard Unit shall be delivered by an RTO for initial, competency assessment and refresher training.

Perform rescue from a live low voltage panel - UETDRMP007

This Competency Standard Unit is published at www.training.gov.au

Frequency	Annual
Delivery	This Competency Standard Unit shall be delivered by an RTO for initial, competency assessment and refresher training.

Perform rescue from switchyard structures - UETDRMP008

This Competency Standard Unit is published at www.training.gov.au

Frequency	Annual
Delivery	This Competency Standard Unit shall be delivered by an RTO for initial, competency assessment and refresher training.

Perform rescue from within a tree in the vicinity of live electrical apparatus - UETDRVC010

This Competency Standard Unit is published at www.training.gov.au

Frequency	Annual
Delivery	This Competency Standard Unit shall be delivered by an RTO for initial, competency assessment and refresher training.

Perform tower rescue - UETDRMP009

This Competency Standard Unit is published at www.training.gov.au

Frequency	Annual
Delivery	This Competency Standard Unit shall be delivered by an RTO for initial, competency assessment and refresher training.

Provide cardiopulmonary resuscitation – HLTAID009

This Competency Standard Unit is published at www.training.gov.au

Frequency	Annual
Delivery	This Competency Standard Unit shall be delivered by an RTO for initial and refresher training.

Provide first aid in an ESI environment - UETDRMP010

This Competency Standard Unit is published at www.training.gov.au

Frequency	Annual
Delivery	This Competency Standard Unit shall be delivered by an RTO for initial, competency assessment and refresher training.

Safe Approach Distances

Module purpose	This module provides the learner with the knowledge and skills to maintain safe approach distances (SAD) to high voltage (HV) and low voltage (LV) electrical apparatus This module can be used for both initial and refresher training
For whom	All workers when working, or operating Vehicles or Mobile Plant, on or near Electrical Apparatus
Frequency	Annual
Summary of content	• The Blue Book and The Green Book • SAD to HV and LV apparatus in regards to: ~ Personal clearances ~ Vehicles ~ Mobile plant ~ Elevating Work Platforms (EWP) • SAD Special
Learning outcomes	On successful completion of this module the learner should be able to:
Learning outcome 1	Identify the requirements for the Safe Approach to Electrical Apparatus within the Victorian Electrical Supply Industry
Assessment criteria	1.1 Identify and explain clauses within The Blue Book and/or The Green Book relating to the Safe Approach to Electrical Apparatus 1.2 Identify and explain clauses within The Blue Book and/or The Green Book relating to the application of Safe Approach Distance - Persons
Learning outcome 2	Identify the SAD for persons working on or near HV and LV electrical apparatus and the safe use of vehicles or mobile plant
Assessment criteria	2.1 Identify the SAD to HV and LV apparatus for persons 2.2 Identify the SAD to HV and LV apparatus for vehicles 2.3 Identify the SAD to HV and LV apparatus for mobile plant 2.4 Identify the SAD to HV and LV apparatus for EWP vehicles

Learning outcome 3*	Identify the requirements for SAD special
Assessment criteria	3.1 Identify the requirements for the use of SAD Special
	3.2 Identify the SAD special to high voltage apparatus and who can apply SAD special
	3.3 Identify the control measures used when applying SAD special
	3.4 Identify the approved tasks authorised persons can apply SAD special

*Learning outcome 3 is only required for workers undertaking Distribution overhead work

Safe Approach Distances – Vegetation Work

Module purpose	This module provides the learner with the knowledge and skills to maintain Safe Approach Distances (SAD) and Vegetation clearances to High Voltage (HV) and Low Voltage (LV) electrical apparatus This module can be used for both initial and refresher training
For whom	All workers when working, or operating Vehicles or Mobile Plant, near or in the vicinity of Electrical Apparatus
Frequency	Annual
Summary of content	• The Blue Book and The Green Book • VESI Vegetation Management Guideline • SAD to HV and LV apparatus in regards to: ~ Personal clearances ~ Vehicles ~ Mobile plant ~ Elevating Work Platforms (EWP) • Vegetation Clearances
Learning outcomes	On successful completion of this module the learner should be able to:
Learning outcome 1	Identify the requirements for the Safe Approach to Electrical Apparatus and Vegetation Clearances within the Victorian Electrical Supply Industry
Assessment criteria	1.1 Identify and explain clauses within The Green Book relating to the Safe Approach to Electrical Apparatus 1.2 Identify and explain clauses within The Green Book relating to the application of Safe Approach Distance - Persons applicable to vegetation works 1.3 Identify and explain clauses within The Green Book and the VESI Vegetation Management Guideline relating to the application of Safe Approach Distance and Vegetation Clearances for Vegetation Works

Learning outcome 2	Identify the SAD for Instructed and Authorised persons working near or in the vicinity of HV and LV electrical apparatus and the safe use of vehicles or mobile plant
Assessment criteria	2.1 Identify the SAD to HV and LV apparatus for persons undertaking Vegetation works utilising insulated EWP, tools, plant and equipment 2.2 Identify the SAD to HV and LV apparatus for persons undertaking Vegetation works when climbing or working from ground level 2.3 Identify the SAD to HV and LV apparatus for vehicles 2.4 Identify the SAD to HV and LV apparatus for mobile plant 2.5 Identify the SAD to HV and LV apparatus for EWP vehicles
Learning outcome 3	Identify the Vegetation Clearances for Instructed and Authorised persons working near or in the vicinity of HV and LV electrical apparatus
Assessment criteria	3.1 Identify the Vegetation Clearances for persons utilising insulated EWP, tools plant and equipment 3.2 Identify the Vegetation Clearances for persons performing vegetation works when climbing or working from ground level

Testing of connections to low voltage electricity networks – UETDRMP011

This Competency Standard Unit is published at www.training.gov.au

When delivering the CSU the following VESI requirements including the learning outcomes and assessment criteria shall be undertaken.

Delivery

This Competency Standard Unit shall be delivered by an RTO for initial, competency assessment and refresher training.

Frequency Annual

Assessment Requirements

When delivering the VESI training/assessment requirements the Mandatory (M) practical assessment tasks from the VESI Installation Supply and Connection Testing Procedures in table 1 shall be completed for the nominated role.

Where the individual Connection Procedure is Inclusive (I) for a particular role, the testing steps and principals are replicated in the Mandatory practical assessment task and are not required to be independently assessed. However, the participant should be aware of these procedures and any specific requirements stipulated e.g. lifting neutrals

Additional (A) Connection Procedures that are undertaken by the participant during their work activities are required to be assessed as competent during the annual refresher.

Table 1

Section	Connection Procedures	Line worker	Cable Jointer	Electrical Inspector	Metering Technician
	New Installations				
4.4	Overhead Supply - *Up to 100 Amp*	I			
4.5	Underground Supply - *Supplied from a Pit*	M[1]			
4.6	Supply Connections >100 Amps (OH or UG) - *Single Occupancy*	A	A	M	
4.7	Unmetered Supply - *Not associated with Multiple Occupancies*	I		I	
4.8	Multiple Occupancy	A		I	
4.9	Public Lighting - *With Switchboard*	I	M		
4.10	Public Lighting - *Without Switchboard*	I	I		
	Existing Installations				
4.11	Replacement or Disconnection, Reconnection Overhead Service - *Service Cable on Supply*	M			
4.11A	Replacement or Disconnection, Reconnection Underground Service up to 100A, Single Occupancy -*Service Cable on or off Supply*	M[1]	M	I	
4.11B	Replacement or Disconnection, Reconnection Underground Service up to 100A, Multiple Occupancy -*Service Cable on or off Supply*	I[2]	I[2]	I	
4.11C	Replacement or Disconnection, Reconnection Underground Service greater than 100A, Single or Multiple Occupancy -*Service Cable on or off Supply*	I[2]	I[2]		
4.12	Replacement Overhead Service - *Service Disconnected from Supply*	I			
4.13	Replacement Overhead Service - *Installation disconnected from Supply; Pole end service protection device*	I		I	
4.14	Single Occupancy: Meter Alteration and/or Addition - *Direct Metering*	M			M
4.14A	Multiple Occupancy: Meter Alteration and/or Addition - *Direct Metering Main or Occupancy Neutral NOT Disturbed*	I		I	I
4.14B	Multiple Occupancy: Meter Alteration and/or Addition - *Direct Metering Main or Occupancy Neutral Disturbed*	I		I	I
4.15	Metering Alteration/Addition – *Current Transformer (CT) installation*				M
4.16	Abolishment of Electricity Supply	I			
4.17	Network “High Voltage” Injection Procedure			M	
4.18	UG Mains Cable Fault - *Reconnection of Supply*	I	I	I	

Legend

A Additional M Mandatory I Inclusive

[1] Dependant on the type of testing work being undertaken in the workplace, the worker can either undertake test procedure 4.5 Underground Supply - *Supplied from a Pit* ***or*** 4.11A Replacement or Disconnection, Reconnection Underground Service up to 100A, Single Occupancy -*Service Cable on or off Supply*

[2] Multiple Occupancy training for 4.11B and 4.11C shall only be undertaken after the initial training for Multiple Occupancy (4.8) testing procedure is completed.

Module purpose	This module provides the learner with the knowledge and skills to carry out servicing and connection testing procedures for new or existing customer installation
For whom	All workers required to carry out servicing and connection testing procedures
Frequency	Annual
Summary of content	• Servicing Safety Processes ~ Personal protective equipment ~ Risk Assessment ~ Hazards • Disconnecting or reconnecting a consumer's mains or submains neutral • Servicing Testing Processes ~ Testing for De-energised ~ Establishing the Neutral Integrity Test Point ~ Continuity Test ~ Identifying and marking neutrals ~ Identifying conductors when ID unknown ~ Polarity Testing ~ VESI Neutral and Supply Tester (NST) Procedure ~ How the NST works ~ Installation Supply Connection Tests and Procedures ~ Neutral Impedance Test Failure ~ Check Test ~ Phase Sequence Testing ~ Load Testing • Service height requirements according to asset regulations and company policy • LV Customer Installations Safety Regulations and Procedures ~ Customer notifications and standard forms ~ Certificate of Electrical Safety ~ Notice of Installation Defect ~ Statement of Isolation of Customers Low Voltage Supply (SILV)

Learning outcomes	On successful completion of this module the learner should be able to:
Learning outcome 1	Demonstrate Servicing Safety Processes
Assessment criteria	1.1 Identify and correctly use personal protective equipment (PPE) and safety equipment when performing installation servicing work 1.2 Carry out a risk assessment to identify the hazards pertaining to an installation servicing task 1.3 Identify the hazards associated with working in pits 1.4 Demonstrate the ability to identify and mark neutrals 1.5 Demonstrate the ability to identify conductors when ID unknown
Learning outcome 2	Identify the requirements for an electrical installation worker disconnecting or reconnecting a consumer's main neutral
Assessment criteria	2.1 Define the requirements of Order in Council G51 in relation to an Electrical Installation worker 2.2 Identify the safety aspects of the disconnection and reconnection of consumer's mains neutral and neutral and polarity testing 2.3 Identify any limitations associated with this work including complex metering such as CT metering 2.4 Demonstrate the safe disconnecting and reconnecting of consumer's mains neutrals 2.5 Demonstrate the safe disconnecting and reconnecting of consumer's submains neutrals
Learning outcome 3	Demonstrate the ability to apply testing associated with connection procedures. Note: These tests are to be performed relevant to the role as detailed in Table 1 above.
Assessment criteria	3.1 Perform Installation Supply Connection tests to installation ~ Demonstrate – Test for De-energised ~ Demonstrate – Establishing a Neutral Integrity Test Point ~ Demonstrate – Polarity Testing ~ Demonstrate – Check Testing ~ Demonstrate – Phase Sequence Testing ~ Demonstrate – Underground consumer's main test (Insulation and continuity resistance) ~ Demonstrate – Load Testing

Learning outcome 4	Demonstrate the NST Procedure Note: These tests are to be performed relevant to the role as detailed in Table 1 above.
Assessment criteria	4.1 Demonstrate a knowledge of the VESI "Installation Supply Connection Tests and Procedures"
	4.2 Describe the purpose of the NST tester
	4.3 Identify the Neutral Integrity Test Point
	4.4 Perform an NST on a service installation
	4.5 Identify a fault using the NST tester
	4.6 Describe the faults and variants that could lead to an incorrect result on a test
	4.7 Demonstrate the procedure for disconnection and reconnection of a service cable
	4.8 Describe the correct reporting procedure when an installation fails the Neutral Supply Test
Learning outcome 5	Demonstrate an understanding of appropriate forms and documents relating to LV installations
Assessment criteria	5.1 Demonstrate an understanding of the correct process regarding the Certificate of Electrical Safety (Prescribed and Non-prescribed)
	5.2 Demonstrate an understanding and the correct use of a Notice of Installation Defect
	5.3 Demonstrate an understanding of a Statement of Isolation Low Voltage (SILV)
Learning outcome 6*	Describe service heights required by the Network Operator.
Assessment criteria	6.1 Describe service heights required by the Network Operator
	*Learning outcome 6 is only required for workers undertaking Distribution overhead work

Three Yearly assessments

Apply access authority procedures to work on or near electrical apparatus - UETDRMP001

This Competency Standard Unit is published at www.training.gov.au.

When delivering the CSU, the following VESI requirements including the learning outcomes and assessment criteria shall be undertaken.

Delivery	This Competency Standard Unit shall be delivered by an RTO for initial, competency assessment and refresher training.
Frequency	Three yearly
Learning outcome 1	Identify the requirements for the use of the EAP within the Victorian Electrical Supply Industry
Assessment criteria	1.1 Identify and explain clauses within The Blue Book or The Green Book relating to the access of HV and LV electrical apparatus 1.2 Identify and explain clauses within The Blue Book or The Green Book relating to the general Safety requirements 1.3 Identify and explain clauses within The Blue Book or The Green Book relating to the work in the vicinity of electrical apparatus 1.4 Identify and explain the clauses within The Blue Book or The Green Book relating to the approach to electrical apparatus 1.5 Identify and explain clauses within The Blue Book or The Green Book relating to the earthing of High Voltage electrical apparatus 1.6 Identify and explain clauses within The Blue Book or The Green Book relating to Access to work on or Near High Voltage Electrical Apparatus 1.7 Identify and explain clauses within The Blue Book or The Green Book relating to the coordination of Low Voltage and High Voltage Access Switching 1.8 Identify and explain the requirement and reasons for and use of the Electrical Access Permit 1.9 Identify and explain the reasons for the Electrical Access Authorisation process

Learning outcome 2	Identify the requirements of the Electrical Access Permit and its application
Assessment criteria	2.1 Identify the general nature of all types of electrical apparatus within the scope of the Electrical Access Permit 2.2 Describe the circumstances under which electrical apparatus may be approached and describe the precautions to be taken 2.3 Describe the various methods of isolating HV and LV apparatus in general use and associated processes for locking and tagging 2.4 Describe the significance of the various types of signs and barriers in use 2.5 Describe the purpose and application of operational and work party earths in general use 2.6 Describe the methods that apparatus can inadvertently become or remain alive 2.7 Describe the EAP issuing and cancellation process 2.8 Describe the process to change the Electrical Access permit conditions (e.g. signing on an additional recipient) 2.9 Explain the importance of keeping the EAP available for reference at the worksite and of signing off the Permit before leaving the worksite 2.10 Describe the communication process for an emergency on site
Learning outcome 3	Describe the purpose and application of the various VESI forms and their relationship to an Electrical Access Permit
Assessment criteria	3.1 Describe the EAP form and identify the sections and their information requirements 3.2 Describe application of a LV Access Authority 3.3 Describe application of an Electrical Apparatus Clearance for Service 3.4 Describe the application of a Vicinity Authority 3.5 Describe the application of a Permit to Work / SILV 3.6 Describe the application of a Sanction for Tests

Learning outcome 4	Identify the responsibilities of the various workers associated with the Access Permit process
Assessment criteria	4.1 Describe the responsibilities of the Operator issuing an Electrical Access Permit 4.2 Describe the responsibilities of the Recipient in Charge of an Electrical Access Permit 4.3 Describe the responsibilities of the Authorised Recipient of an Electrical Access Permit 4.4 Describe the circumstances under which Instructed Persons may sign onto an Electrical Access Permit and the process for ensuring their safety 4.5 The Responsibilities of the Safety Observer in relation to the Access Permit requirements
Learning outcome 5	Demonstrate an understanding of the earthing process
Assessment criteria	5.1 State the related safe working practices and the procedures to attach an earthing device 5.2 Identify when and where additional earths and/or bonders are required 5.3 Describe the Priority Earthing System 5.4 Demonstrate the correct application of an earthing device to an isolated HV circuit. (Note: Learning Assessment Criteria 5.4 applies to persons with a need to apply earths)
Learning outcome 6	Describe the Network Operator's procedures relating to entry to enclosure requirements, site security, communications protocols for entry and exit and in an emergency situation
Assessment criteria	6.1 Describe the Network Operator's procedures relating to site security, emergency contacts and operational contacts 6.2 Identify safe work practices, general precautions and hazards that need to be observed when entering a HV enclosure

Confined Spaces

Training shall be based on the work being undertaken and the performance criteria outlined in the relevant Competency Standard Unit, which meets the requirements of the Occupational health and Safety Regulations 2017 - Part 3.4 Confined Spaces.

Consideration shall be given to the following requirements: entry to a confined space, the use of a work permit system, breathing apparatus and confined space rescue when selecting the relevant Competency Standard unit

Frequency	Three yearly
Delivery	Shall be delivered by an RTO for initial, competency assessment and refresher training

Control traffic with stop-slow bat - RIIWHS205E

This Competency Standard Unit is published at www.training.gov.au

Frequency	Three yearly
Delivery	This Competency Standard Unit shall be delivered by an RTO for initial, competency assessment and refresher training

Implement traffic management plan - RIIWHS302E

This Competency Standard Unit is published at www.training.gov.au

Frequency	Three yearly
Delivery	This Competency Standard Unit shall be delivered by an RTO for initial, competency assessment and refresher training

Enter Enclosures

Module purpose	This module provides the learner with the knowledge and skills to understand the procedures to be observed when entering enclosures containing High Voltage (HV) and Low Voltage (LV) apparatus This module can be used for both initial and refresher training
For whom	All workers not otherwise authorised who are required to enter enclosures containing HV/LV apparatus
Frequency	Three yearly
Summary of content	• Overview of the Electrical Distribution and Transmission System • Identification of HV & LV Apparatus • The Blue Book and The Green Book • Safe Approach Distances to HV and LV apparatus in regards to: ~ Personal clearances ~ Vehicles ~ Mobile plant ~ Elevating Work Platforms (EWP) • Procedures to be observed when entering LV and HV enclosures • Evacuation and emergencies • Underground Substation Procedure • Personal protective equipment (PPE) • Site visit may include distribution or zone sub-stations or terminal stations
Learning outcomes	On successful completion of this module the learner should be able to:
Learning outcome 1	Identify the requirements of the electrical distribution and transmission system and features of simple electrical circuitry.
Assessment criteria	1.1 Describe the key features of electricity i.e. voltage, current 1.2 Describe the effect that electricity has on the human body 1.3 Identify the main features of an electrical supply system, from power station to the customer

Learning outcome 2	Identify the requirements for entry into enclosures within the Victorian Electrical Supply Industry
Assessment criteria	2.1 Identify and explain clauses within The Blue Book or The Green Book relating to the general safety requirements 2.2 Identify and explain clauses within The Blue Book or The Green Book relating to the work in the vicinity of electrical apparatus 2.3 Identify and explain clauses within The Blue Book or The Green Book relating to the safe approach to electrical apparatus 2.4 Identify LV and HV apparatus within an enclosure
Learning outcome 3	Identify the safe approach distances (SAD) for persons entering enclosures containing LV and HV apparatus
Assessment criteria	3.1 Identify SAD to LV and HV electrical apparatus for workers authorised to enter enclosures 3.2 Identify SAD to LV and HV apparatus for vehicles and mobile plant 3.3 Identify the requirements and SAD's to LV and HV apparatus for plant and persons working under instruction (safety observer) of an authorised Electrical trade qualified worker
Learning outcome 4	Identify safe work practices, general precautions and hazards that need to be observed whilst within an LV and HV environment
Assessment criteria	4.1 Identify and locate the correct enclosure 4.2 Identify and correctly use personal protective equipment (PPE) and safety equipment for workers entering LV and HV enclosures. 4.3 Demonstrate knowledge of potential hazards that may exist in enclosures containing LV and HV apparatus. 4.4 Identify HV enclosures within a station that require more than just an Authorisation to enter. 4.5 Describe the Network Operator's procedures relating to site security, communication protocols for entry and exit during normal work activities and in an emergency.

High Voltage (HV) Switching – RSO (Restricted Switching Overhead)

Module purpose	This module provides the learner with the knowledge and skills to perform High Voltage Electrical Switching on all distribution overhead and ground type substations, spur and SWER lines and associated apparatus, excluding metal enclosed switch gear
For whom	All workers required to perform switching on the high voltage Distribution overhead apparatus, excluding the interconnected Network
Prerequisite	UETDRIS017 - Perform high voltage field switching operation to a given schedule. UETDRIS018 - Perform low voltage field switching operation to a given schedule. These Competency Standard Units shall be delivered by an RTO
Summary of content	• The Green Book • Roles and responsibilities • Network Operational procedures • Safe Work Method Statements (SWMS) and site risk assessment process • Operation of HV and LV electrical apparatus • Interpretation of HV single line diagrams • Systematic approach to switching • Hazard identification and Operator protection • Use of personal protective equipment (PPE) and safety equipment • Use of Operating Instructions • Communications protocols • Earthing Procedures • Issue / cancellation of Electrical Access Authority/s for workers working on or in the vicinity of HV apparatus • Ferro Resonance • Restoration of supply • Fault finding and emergency response • Understanding of Protection Schemes

Assessment	The practical assessment should remain flexible to allow where possible, the utilisation of scheduled work for assessment
Frequency	Three yearly
Learning outcomes	On successful completion of this module the learner should be able to:
Learning Outcome 1	Locate, interpret, and apply appropriate Regulations, The Green Book and Network Operator Switching procedures relating to HV electrical safety
Assessment Criteria	1.1 Describe the structure of industry standards in relation to electrical safety 1.2 Reference the Green Book for clauses related to safe work procedures while performing switching operations. 1.3 Reference Network Operator Switching Procedures 1.4 Describe the function, roles and responsibilities of a Distribution Switching Overhead Operator 1.5 Identify Safe Work Method Statements (SWMS) and site risk assessment process for HV Switching 1.6 Identify and correctly use personal protective equipment (PPE) and safety equipment required for the safe operation of high voltage switchgear 1.7 Identify communications process with the Control Centre, work parties and other operators 1.8 Identify communications process for incident reporting in regards to switching operations

Learning Outcome 2	Identify the function, operation, and precautions associated with high voltage electrical apparatus and associated hardware
Assessment Criteria	2.1 Identify the capabilities of the typical range of switchgear installed on the overhead distribution network 2.2 Identify the use of caution and danger tags 2.3 Identify the precautions necessary in relation to Ferro resonance 2.4 Describe the method of operation of typical high voltage switchgear installed on the distribution network 2.5 Describe a pre-operation inspection and the associated hazards relative to the switchgear being operated 2.6 Describe the Network Operator nomenclature standards and switch numbering 2.7 Identify the procedure for commissioning new apparatus including new transformers, pre-commissioning tests, insulation tests, no-load voltage tests, phase sequence tests and phase-out tests 2.8 Describe the operation and precautions associated with SWER systems
Learning Outcome 3	Interpret HV single line diagrams
Assessment Criteria	3.1 Identify the meaning of various symbols used in single line diagrams 3.2 Read a single line diagram, check that it is correct with the network system

Learning Outcome 4	Demonstrate switching processes, procedures and communication protocol for the safe switching of the distribution overhead network
Assessment Criteria	4.1 Demonstrate accurate and effective communications with the Control Centre 4.2 Demonstrate the use of a switching instruction while performing switching operations 4.3 Demonstrate a pre-operation inspection and describe the hazards that are relative to the switchgear being operated 4.4 Demonstrate the application of a systematic approach to switching 4.4 Demonstrate the operation of a range of high voltage switchgear installed on the distribution network
Learning Outcome 5	Demonstrate effective earthing practices and procedures when earthing HV electrical apparatus for access
Assessment Criteria	5.1 Identify the requirements for isolation from primary and secondary voltages necessary for safe access under access authority conditions 5.2 Identify the dangers of the application of earth devices to high voltage apparatus 5.3 Identify and correctly use personal protective equipment (PPE) and safety equipment required for the safe application of high voltage earthing devices 5.4 Demonstrate the application of a systematic approach to earthing 5.5 Describe the priority earthing system

Learning Outcome 6	Describe the purpose, preparation and procedure for use of operational forms, access authorities and permits associated with HV switching
Assessment Criteria	6.1 Identify the options available for managing work in the vicinity of high voltage apparatus 6.2 Describe the need for maintaining security of high voltage installations, and for controlling the activity of people in these areas 6.3 Describe the access permit procedure, the responsibilities of people involved and its application in the workplace 6.4 Identify the requirements of additional access authorities associated with access to high voltage apparatus e.g. SILV, SCAP, PTW
Learning Outcome 7	Issue and cancel access authorities appropriate to the nominated tasks
Assessment Criteria	7.1 Identify the procedures for the completion, issue and cancellation of an Electrical Access Authority 7.2 Prepare an Electrical Access Authority in accordance with accepted procedures and practices, which clearly defines safety precautions relating to access to high voltage apparatus 7.3 Conduct preliminary discussions with work party ensuring that the task can commence safely and issue an Electrical Access Authority for a specified task 7.4 Confirm the work is completed, the apparatus is fit for service and cancel Electrical Access Authority in accordance with procedures

Learning Outcome 8	Describe the functions and operation of common high voltage protection systems and suppression functionality
Assessment Criteria	8.1 Describe the functions and operation of over current and earth leakage protection 8.2 Identify suppression requirements when undertaking network switching
Learning Outcome 9	Identify the requirements for patrolling and switching the HV network in fault situations
Assessment Criteria	9.1 Describe how to effectively patrol a faulted section of line to identify the probable cause 9.2 Explain how to efficiently isolate the faulted apparatus and restore supply under direction of the Control Centre 9.3 Describe the actions needed to liaise with other emergency services to make a faulted area safe 9.4 Demonstrate the actions necessary to coordinate on site repairs with work parties

High Voltage (HV) Switching – DSO (Distribution Switching Overhead)

Module purpose	This module provides the learner with the knowledge and skills to perform High Voltage Electrical Switching on; all distribution overhead field apparatus, excluding metal enclosed switchgear
Prerequisite	UETDRIS017 - Perform high voltage field switching operation to a given schedule. UETDRIS018 - Perform low voltage field switching operation to a given schedule. These Competency Standard Units shall be delivered by an RTO
For whom	All workers required to perform switching on the high voltage Distribution Overhead Network
Summary of content	• The Green Book • Roles and responsibilities • Network Operational procedures • Safe Work Method Statements (SWMS) and site risk assessment process • Operation of HV and LV electrical apparatus • Interpretation of HV single line diagrams • Systematic approach to switching operations • Hazard identification and Operator protection • Use of personal protective equipment (PPE) and safety equipment • Use of Operating Instructions • Communications protocols • Earthing Procedures • Issue / cancellation of Electrical Access Authority/s for workers working on or in the vicinity of HV apparatus • Ferro Resonance • Restoration of supply • Fault finding and emergency response • Understanding of Protection Schemes

Assessment	The practical assessment should remain flexible to allow where possible, the utilisation of scheduled work for assessment
Frequency	3 Yearly
Learning outcomes	On successful completion of this module the learner should be able to:
Learning Outcome 1	Locate, interpret, and apply appropriate Regulations, The Green Book and Network Operator Switching procedures relating to HV electrical safety
Assessment Criteria	1.1 Describe the structure of industry standards in relation to electrical safety 1.2 Reference the Green Book for clauses related to safe work procedures while performing switching operations. 1.3 Reference Network Operator Switching Procedures 1.4 Describe the function, roles and responsibilities of a Distribution Switching Overhead Operator 1.5 Identify Safe Work Method Statements (SWMS) and site risk assessment process for HV switching 1.6 Identify the personal protective equipment (PPE) and safety equipment required for the safe operation of high voltage switchgear 1.7 Identify communications process with the Control Centre, work parties and other operators 1.8 Identify communications process for incident reporting in regards to switching operations

Learning Outcome 2	Identify the function, operation, and precautions associated with high voltage electrical apparatus and associated hardware
Assessment Criteria	2.1 Identify the capabilities of the typical range of switchgear installed on the overhead distribution network 2.2 Identify the use of caution and danger tags 2.3 Identify the precautions necessary in relation to Ferro resonance 2.4 Describe the method of operation, and demonstrate the operation of typical high voltage switchgear and apparatus installed on the overhead distribution network 2.5 Describe a pre-operation inspection and the associated hazards relative to the switchgear being operated 2.6 Describe the Network Operator nomenclature standards and switch numbering 2.7 Identify the procedure for commissioning new apparatus including new transformers, pre-commissioning tests, insulation tests, no-load voltage tests, phase sequence tests and phase-out tests 2.8 Identify the processes and precautions required when operating interconnected feeders 2.9 Describe the operation and precautions associated with distribution overhead electrical systems
Learning Outcome 3	Interpret HV single line diagrams and prepare a switching program
Assessment Criteria	3.1 Identify the meaning of various symbols used in single line diagrams 3.2 Read a single line diagram, check that it is correct with the network system

Learning Outcome 4	Demonstrate switching processes, procedures and communication protocol for the safe switching of the distribution overhead network
Assessment Criteria	4.1 Demonstrate accurate and effective communications with the Control Centre 4.2 Demonstrate the use of a switching instruction while performing switching operations 4.3 Demonstrate a pre-operation inspection and describe the hazards that are relative to the switchgear being operated 4.4 Demonstrate the application of a systematic approach to switching 4.5 Demonstrate the operation of a range of high voltage switchgear installed on the distribution network
Learning Outcome 5	Demonstrate effective earthing practices and procedures when earthing HV electrical apparatus for access
Assessment Criteria	5.1 Identify the requirements for isolation from primary and secondary voltages necessary for safe access under access authority conditions 5.2 Identify the dangers of the application of earth devices to high voltage apparatus 5.3 Identify and correctly use personal protective equipment (PPE) and safety equipment required for the safe application of high voltage earthing devices and demonstrate the correct use 5.4 Demonstrate the application of a systematic approach to earthing 5.5 Describe the priority earthing system
Learning Outcome 6	Describe the purpose, preparation and procedure for use of operational forms, access authorities and permits associated with HV switching
Assessment Criteria	6.1 Identify the options available for managing work in the vicinity of high voltage apparatus 6.2 Describe the need for maintaining security of high voltage installations, and for controlling the activity of people in these areas 6.3 Describe the access permit procedure, the responsibilities of people involved and its application in the workplace 6.4 Identify the requirements of additional access authorities associated with access to high voltage apparatus

Learning Outcome 7	Issue and cancel access authorities appropriate to the nominated tasks
Assessment Criteria	7.1 Identify the procedures for the completion, issue and cancellation of an Electrical Access Authority 7.2 Prepare an Electrical Access Authority in accordance with accepted procedures and practices, which clearly defines safety precautions relating to access to high voltage apparatus 7.3 Conduct preliminary discussions with work party ensuring that the task can commence safely and issue an Electrical Access Authority for a specified task 7.4 Confirm the work is completed, the apparatus is fit for service and cancel the Electrical Access Authority in accordance with procedures
Learning Outcome 8	Describe the functions and operation of common high voltage protection systems and suppression functionality
Assessment Criteria	8.1 Describe the functions and operation of overcurrent and earth leakage protection 8.2 Identify suppression requirements when undertaking network switching
Learning Outcome 9	Identify the requirements for patrolling and switching the HV network in fault situations
Assessment Criteria	9.1 Describe how to effectively patrol a faulted section of line to identify the probable cause 9.2 Explain how to efficiently isolate the faulted apparatus and restore supply under direction of the Control Centre 9.3 Describe the actions needed to liaise with other emergency services to make a faulted area safe 9.4 Demonstrate the actions necessary to coordinate on site repairs with work parties

High Voltage (HV) Switching – DS (Distribution Switching)

Module purpose	This module provides the learner with the knowledge and skills to perform High Voltage Electrical Switching on all distribution field apparatus including metal enclosed switchgear and the underground network
Prerequisite	UETDRIS017 - Perform high voltage field switching operation to a given schedule. UETDRIS018 - Perform low voltage field switching operation to a given schedule. These Competency Standard Units shall be delivered by an RTO
For whom	All workers required to perform switching on the high voltage Distribution Network
Summary of content	• The Green Book • Roles and responsibilities • Network Operators Operational procedures • Safe Work Method Statements (SWMS) and site risk assessment process • Operation of HV and LV electrical apparatus including underground and Metal clad switchgear • Interpretation of HV single line diagrams • Systematic approach to switching operations • Hazard identification and Operator protection • Personal protective equipment (PPE) and safety equipment • Use of Operating Instructions • Communications protocols • Earthing Procedures • Issue / cancellation of Electrical Access Authority/s for workers working on or in the vicinity of HV apparatus • Ferro Resonance • Restoration of supply • Fault finding and emergency response • Understanding of Protection schemes
Assessment	The practical assessment should remain flexible to allow where possible, the utilisation of scheduled work for assessment
Frequency	3 Yearly

Learning outcomes	On successful completion of this module the learner should be able to:
Learning Outcome 1	Locate, interpret, and apply appropriate VESI Regulations, The Green Book and Network Operators Switching procedures relating to HV electrical safety
Assessment Criteria	1.1 Describe the structure of industry standards in relation to electrical safety 1.2 Reference the Green Book for clauses related to safe work procedures while performing switching operations 1.3 Reference Network Operator Switching Procedures 1.4 Describe the function, roles and responsibilities of a Distribution Switching Overhead and Underground Operator 1.5 Identify Safe Work Method Statements (SWMS) and site risk assessment process for HV Switching 1.6 Identify the personal protective equipment (PPE) and safety equipment required for the safe operation of high voltage switchgear 1.7 Identify communications process with the Control Centre, work parties and other operators 1.8 Identify communications process for incident reporting in regards to switching operations
Learning Outcome 2	Identify the function, operation, and precautions associated with high voltage electrical apparatus and associated hardware
Assessment Criteria	2.1 Identify the capabilities of the typical range of switchgear installed on the overhead and underground distribution network 2.2 Identify the use of caution and danger tags 2.3 Identify the precautions necessary in relation to Ferro resonance 2.4 Describe the method of operation, and demonstrate the operation of typical high voltage switchgear installed on the overhead and underground distribution network 2.5 Describe a pre-operation inspection and the associated hazards relative to the switchgear being operated 2.6 Describe the methods of operation of transformers and the reasons for this method including the changing of taps

	2.7 Identify the procedure for commissioning new apparatus e.g. new transformers pre-commissioning tests, insulation tests, no-load voltage tests, phase sequence tests and phase-out tests
	2.8 Identify the methods of operation and precautions associated with distribution overhead and underground electrical systems
Learning Outcome 3	Interpret HV single line diagrams and prepare a switching program
Assessment Criteria	3.1 Identify the meaning of various symbols used in single line diagrams
	3.2 Read a single line diagram, check that it is correct with the network system
Learning Outcome 4	Demonstrate switching processes, procedures and communication protocol for the safe switching of the distribution overhead and underground network
Assessment Criteria	4.1 Demonstrate accurate and effective communications with the Control Centre
	4.2 Demonstrate the use of a switching instruction while performing switching operations
	4.3 Demonstrate a pre-operation inspection and describe the hazards that are relative to the switchgear being operated
	4.4 Demonstrate the application of a systematic approach to switching
	4.5 Demonstrate the operation of a range of high voltage switchgear installed on the distribution overhead and underground network
Learning Outcome 5	Demonstrate effective earthing practices and procedures when earthing HV electrical apparatus for access
Assessment Criteria	5.1 Identify the requirements for isolation from primary and secondary voltages necessary for safe access under access authority conditions
	5.2 Identify the dangers of the application of earth devices to high voltage apparatus
	5.3 Identify and correctly use personal protective equipment (PPE) and safety equipment required for the safe application of high voltage earthing devices
	5.4 Demonstrate the application of a systematic approach to earthing
	5.5 Describe the priority earthing system

Learning Outcome 6	Describe the purpose, preparation and procedure for use of operational forms, access authorities and permits associated with HV switching
Assessment Criteria	6.1 Identify the options available for managing work in the vicinity of high voltage apparatus 6.2 Describe the need for maintaining security of high voltage installations, and for controlling the activity of people in these areas 6.3 Describe the access permit procedure, the responsibilities of people involved and its application in the workplace 6.4 Identify the requirements of additional access authorities associated with access to high voltage apparatus
Learning Outcome 7	Issue and cancel access authorities appropriate to the nominated tasks
Assessment Criteria	7.1 Identify the procedures for the completion, issue and cancellation of an Electrical Access Authority 7.2 Prepare an Electrical Access Authority in accordance with accepted procedures and practices, which clearly defines safety precautions relating to access to high voltage apparatus 7.3 Conduct preliminary discussions with work party ensuring that the task can commence safely and issue an Electrical Access Authority for a specified task 7.4 Confirm work is completed and cancel Electrical Access Authority in accordance with procedures
Learning Outcome 8	Describe the functions and operation of common high voltage protection systems and suppression functionality
Assessment Criteria	8.1 Describe the functions and operation of overcurrent and earth leakage protection 8.2 Identify suppression requirements when undertaking network/interconnected network switching

Learning Outcome 9	Identify the requirements for patrolling and switching the HV network in fault situations
Assessment Criteria	9.1 Describe how to effectively patrol a faulted section of line to identify the probable cause 9.2 Explain how to efficiently isolate the faulted apparatus and restore supply under direction of the Control Centre 9.3 Describe the actions needed to liaise with other emergency services to make a faulted area safe 9.4 Demonstrate the actions necessary to coordinate on site repairs with work parties

High Voltage (HV) Switching – ZSS (Zone Substation Switching)

Module purpose	This module provides the learner with the knowledge and skills to perform High Voltage Electrical Switching on all Sub-Transmission and Distribution apparatus within zone substations
Prerequisite	UETDRSB001 - Perform substation switching operations to a given schedule. This Competency Standard Units shall be delivered by an RTO
For whom	All workers required to perform switching on the high voltage Sub Transmission and Distribution Network in Zone Substations
Summary of content	• The Green Book • Roles and responsibilities • Network Operators Operational procedures • Safe Work Method Statements (SWMS) and site risk assessment process • Operation of HV and LV electrical apparatus • Interpretation of HV single line diagrams • Systematic approach to switching operations • Hazard identification and Operator protection • Personal protective equipment (PPE) and safety equipment • Use of Operating Instructions • Communications protocols • Earthing Procedures • Issue / cancellation of Electrical Access Authority/s for workers working on or in the vicinity of HV apparatus • Restoration of supply • Fault finding and emergency response • Understanding of Protection schemes
Assessment	The practical assessment should remain flexible to allow where possible, the utilisation of scheduled work for assessment
Frequency	3 Yearly
Learning outcomes	On successful completion of this module the learner should be able to:

Learning Outcome 1	Locate, interpret, and apply appropriate Regulations, The Green Book and Network Operators switching procedures relating to HV electrical safety
Assessment Criteria	1.1 Describe the structure of industry standards in relation to electrical safety 1.2 Reference the Green Book for clauses related to safe procedures while performing switching operations. 1.3 Reference Network Operator Switching Procedures 1.4 Describe the function, roles and responsibilities of a Zone Substation Switching Operator 1.5 Identify Safe Work Method Statements (SWMS) and site risk assessment process for HV switching 1.6 Identify the personal protective equipment (PPE) and safety equipment required for the safe operation of HV switchgear 1.7 Identify communications process with the Control Centre, work parties and other operators 1.8 Identify communications process for incident reporting in regards to switching operations
Learning Outcome 2	Identify the function, operation, and precautions associated with high voltage electrical apparatus and associated hardware
Assessment Criteria	2.1 Identify the capabilities of the typical range of switchgear installed in a Zone Substation 2.2 Identify the use of caution and danger tags 2.3 Describe the method of operation of typical high voltage switchgear and plant installed in a Zone Substation 2.4 Describe a pre-operation inspection and the associated hazards relative to the switchgear being operated 2.5 Describe the Network Operator nomenclature standards 2.6 Identify the procedure for commissioning new apparatus e.g. new transformers pre-commissioning tests, insulation tests, no-load voltage tests, phase sequence tests and phase-out tests 2.7 Describe the operation and precautions associated with Distribution and Sub-Transmission plant and equipment

Learning Outcome 3	Interpret HV single line diagrams and prepare a switching program
Assessment Criteria	3.1 Identify the meaning of various symbols used in single line diagrams 3.2 Read a single line diagram, check that it is correct with the network system
Learning Outcome 4	Demonstrate switching processes, procedures and communication protocol for the safe switching of Zone Substations
Assessment Criteria	4.1 Demonstrate accurate and effective communications with the Control Centre 4.2 Demonstrate the use of a switching instruction while performing switching operations 4.3 Demonstrate a pre-operation inspection and describe the hazards that are relative to the switchgear being operated 4.4 Demonstrate the application of a systematic approach to switching 4.5 Demonstrate the operation of a range of HV switchgear installed in a Zone Substation
Learning Outcome 5	Demonstrate effective communication protocol and earthing practices and procedures when earthing HV electrical apparatus for access
Assessment Criteria	5.1 Identify the requirements for isolation from primary and secondary voltages necessary for safe access under access authority conditions 5.2 Identify the dangers of the application of earth devices to high voltage apparatus 5.3 Identify and correctly use personal protective equipment (PPE) and safety equipment required for the safe application of high voltage earthing devices 5.4 Demonstrate the application of a systematic approach to earthing

Learning Outcome 6	Describe the purpose, preparation, and procedure for use of operational forms, access authorities and permits associated with HV switching
Assessment Criteria	6.1 Identify the various formal options available for managing work in the vicinity of high voltage apparatus 6.2 Describe the need for maintaining security of high voltage installations, and for controlling the activity of people in these areas 6.3 Prepare barriers and signs for the safe access to nominated high voltage apparatus 6.4 Describe the Access Authority procedure, the responsibilities of people involved and its application in the workplace 6.5 Identify the requirements of additional access authorities associated with access to high voltage apparatus
Learning Outcome 7	Issue and cancel access authorities appropriate to the nominated tasks
Assessment Criteria	7.1 Identify the procedures for the completion, issue and cancellation of an Electrical Access Authority 7.2 Prepare an Electrical Access Authority in accordance with accepted procedures and practices, which clearly defines safety precautions relating to access to high voltage apparatus 7.3 Conduct preliminary discussions with work party ensuring that the task can commence safely and issue an Electrical Access Authority for a specified task 7.4 Confirm work is completed and cancel Electrical Access Authority in accordance with procedures

Learning Outcome 8	Describe the functions and operation of common high voltage protection systems and suppression functionality
Assessment Criteria	8.1 Describe the functions and operation of protection systems 8.2 Identify relay indications that would occur for nominated faults on the high voltage system 8.3 Identify protection schemes 8.4 Describe the control circuit and supply system for protection systems
Learning Outcome 9	Identify the requirements for identifying and switching the HV network in fault situations
Assessment Criteria	9.1 Describe how to effectively identify a faulted section of apparatus or plant 9.2 Explain how to efficiently isolate the faulted apparatus and restore supply under direction of the Control Centre 9.3 Describe the actions needed to liaise with other emergency services to make a faulted area safe 9.4 Demonstrate the actions necessary to coordinate on site repairs with work parties

High Voltage (HV) Switching – TSF (Terminal Switching Feeders)

Module purpose	This module provides the learner with the knowledge and skills to perform High Voltage Electrical Switching on all distribution-controlled feeder apparatus in Terminal Stations
Prerequisite	UETDRSB001 - Perform substation switching operations to a given schedule This Competency Standard Units shall be delivered by an RTO
For whom	All workers required to perform switching on the high voltage Sub Transmission and Distribution Network in Terminal Stations
Summary of content	• The Green Book and The Blue Book • Roles and responsibilities • Network Operators Operational procedures • Safe Work Method Statements (SWMS) and site risk assessment process • Operation of HV and LV electrical apparatus • Interpretation of HV single line diagrams • Systematic approach to switching operations • Hazard identification and Operator protection • Personal protective equipment (PPE) and safety equipment • Use of Operating Instructions • Communications protocols • Earthing Procedures • Issue / cancellation of Electrical Access Authority/s for workers working on or in the vicinity of HV apparatus • Restoration of supply • Fault finding and emergency response • Understanding of Protection schemes
Assessment	The practical assessment should remain flexible to allow where possible, the utilisation of scheduled work for assessment
Frequency	3 Yearly
Learning outcomes	On successful completion of this module the learner should be able to:

Learning Outcome 1	Locate, interpret, and apply appropriate Regulations, The Blue Book and The Green Book and Network Operators switching procedures relating to HV electrical safety
Assessment Criteria	1.1 Describe the structure of industry standards in relation to electrical safety 1.2 Reference The Blue Book and The Green Book clauses related to safe procedures while performing switching operations. 1.3 Reference Network Operator Switching Procedures 1.4 Describe the function, roles and responsibilities of a Switching Operator for Distribution controlled feeder apparatus in Terminal Stations 1.5 Identify Safe Work Method Statements (SWMS) and site risk assessment process for HV switching 1.6 Identify the personal protective equipment (PPE) and safety equipment required for the safe operation of HV switchgear 1.7 Identify communications process with the Control Centre, work parties and other operators 1.8 Identify communications process for incident reporting in regards to switching operations
Learning Outcome 2	Identify the function, operation, and precautions associated with high voltage electrical apparatus and associated hardware
Assessment Criteria	2.1 Identify the capabilities of the typical range of switchgear installed in a Terminal Station 2.2 Identify the use of caution and danger tags 2.3 Describe the method of operation of typical high voltage switchgear and plant installed in a Terminal Station 2.4 Describe a pre-operation inspection and the associated hazards relative to the switchgear being operated 2.5 Describe the Network Operator nomenclature standards 2.6 Identify the procedure for commissioning new apparatus e.g. new transformers pre-commissioning tests, insulation tests, no-load voltage tests, phase sequence tests and phase-out tests 2.7 Demonstrate an understanding of the operation and precautions associated with Distribution and Sub-Transmission plant and equipment

Learning Outcome 3	Interpret HV single line diagrams and prepare a switching program
Assessment Criteria	3.1 Identify the meaning of various symbols used in single line diagrams 3.2 Read a single line diagram, check that it is correct with the network system
Learning Outcome 4	Demonstrate switching processes, procedures, and communication protocol for the safe switching of Terminal Substations
Assessment Criteria	4.1 Demonstrate accurate and effective communications with the Control Centre 4.2 Demonstrate the use of a switching instruction while performing switching operations 4.3 Demonstrate a pre-operation inspection and describe the hazards that are relative to the switchgear being operated 4.4 Demonstrate the application of a systematic approach to switching 4.5 Demonstrate the operation of a range of HV switchgear installed in a Terminal Station
Learning Outcome 5	Demonstrate effective communication protocol and earthing practices and procedures when earthing HV electrical apparatus for access
Assessment Criteria	5.1 Identify the requirements for isolation from primary and secondary voltages necessary for safe access under access authority conditions 5.2 Identify the dangers of the application of earth devices to high voltage apparatus 5.3 Identify and correctly use personal protective equipment (PPE) and safety equipment required for the safe application of high voltage earthing devices 5.4 Demonstrate the application of a systematic approach to earthing

Learning Outcome 6	Describe the purpose, preparation and procedure for use of operational forms, access authorities and permits associated with HV switching
Assessment Criteria	6.1 Identify the various formal options available for managing work in the vicinity of high voltage apparatus 6.2 Describe the need for maintaining security of high voltage installations, and for controlling the activity of people in these areas 6.3 Prepare barriers and signs for the safe access to nominated high voltage apparatus 6.4 Describe the Access Authority procedure, the responsibilities of people involved and its application in the workplace 6.5 Identify the requirements of additional access authorities associated with access to high voltage apparatus
Learning Outcome 7	Issue and cancel access authorities appropriate to the nominated tasks
Assessment Criteria	7.1 Identify the procedures for the completion, issue and cancellation of an Electrical Access Authority 7.2 Prepare an Electrical Access Authority in accordance with accepted procedures and practices, which clearly defines safety precautions relating to access to high voltage apparatus 7.3 Conduct preliminary discussions with work party ensuring that the task can commence safely and issue an Electrical Access Authority for a specified task 7.4 Confirm work is completed and cancel Electrical Access Authority in accordance with procedures

Learning Outcome 8	Describe the functions and operation of common high voltage protection systems and suppression functionality
Assessment Criteria	8.1 Describe the functions and operation of protection systems 8.2 Identify relay indications that would occur for nominated faults on the high voltage system 8.3 Identify protection schemes 8.4 Describe the control circuit and supply system for protection systems
Learning Outcome 9	Identify the requirements for identifying and switching the HV network in fault situations
Assessment Criteria	9.1 Describe how to effectively identify a faulted section of apparatus or plant 9.2 Explain how to efficiently isolate the faulted apparatus and restore supply under direction of the Control Centre 9.3 Describe the actions needed to liaise with other emergency services to make a faulted area safe 9.4 Demonstrate the actions necessary to coordinate on site repairs with work parties

High Voltage (HV) Switching – TS (Terminal Switching)

Module purpose	This module provides the learner with the knowledge and skills to perform High Voltage Electrical Switching on; all Transmission and Sub Transmission apparatus in Terminal Stations
Prerequisite	UETDRSB001 - Perform substation switching operations to a given schedule. This Competency Standard Unit shall be delivered by an RTO
For whom	All workers required to perform switching on the high voltage Transmission and Sub Transmission Network in Terminal Stations
Summary of content	• The Green Book and The Blue Book • Roles and responsibilities • Network Operators Operational procedures • Safe Work Method Statements (SWMS) and site risk assessment process • Operation of HV and LV electrical apparatus • Interpretation of HV single line diagrams • Systematic approach to switching operations • Hazard identification and Operator protection • Personal protective equipment (PPE) and safety equipment • Use of Operating Instructions • Communications protocols • Earthing Procedures • Issue / cancellation of Electrical Access Authority/s for workers working on or in the vicinity of HV apparatus • Restoration of supply • Fault finding and emergency response • Understanding of Protection schemes • Understand an interpret system metering instruments • Understand and switch DC supplies to maintain supply • Awareness of HV field strengths in switchyards
Assessment	The practical assessment should remain flexible to allow where possible, the utilisation of scheduled work for assessment
Frequency	3 Yearly

Learning outcomes	On successful completion of this module the learner should be able to:
Learning Outcome 1	Locate, interpret, and apply appropriate Regulations, The Blue Book and The Green Book and Network Operators switching procedures relating to HV electrical safety
Assessment Criteria	1.1 Describe the structure of industry standards in relation to electrical safety 1.2 Reference The Blue Book and The Green Book and Network Operators Procedures 1.3 Describe the function, roles and responsibilities of a Switching Operator in Terminal Stations. 1.4 Identify Safe Work Method Statements (SWMS) and site risk assessment process for HV switching 1.5 Identify the personal protective equipment (PPE) and safety equipment required for the safe operation of HV switchgear 1.6 Identify communications process with the Control Centre, work parties and other operators 1.7 Identify communications process for incident reporting in regards to switching operations
Learning Outcome 2	Identify the function, operation, and precautions associated with high voltage electrical apparatus and associated hardware
Assessment Criteria	2.1 Identify the capabilities of the typical range of switchgear installed in a Terminal Station 2.2 Identify the use of caution and danger tags 2.3 Describe the method of operation of typical high voltage switchgear installed in Terminal Station 2.4 Describe a pre-operation inspection and the associated hazards relative to the switchgear being operated 2.5 Describe the Network Operator nomenclature standards 2.6 Identify the procedure for commissioning new apparatus e.g. new transformers pre-commissioning tests, insulation tests, no-load voltage tests, phase sequence tests and phase-out tests 2.7 Describe the operation and precautions associated with Transmission and Sub Transmission equipment

Learning Outcome 3	Interpret HV single line diagrams and prepare a switching program
Assessment Criteria	3.1 Identify the meaning of various symbols used in single line diagrams 3.2 Read a single line diagram, check that it is correct with the network system
Learning Outcome 4	Demonstrate switching processes, procedures and communication protocol for the safe switching in Terminal Stations
Assessment Criteria	4.1 Demonstrate accurate and effective communications with the Control Centre 4.2 Demonstrate the use of a switching instruction while performing switching operations 4.3 Describe a pre-operation inspection and the associated hazards relative to the switchgear being operated 4.4 Demonstrate the application of a systematic approach to switching 4.5 Demonstrate the operation of a range of HV switchgear installed in a Terminal Station
Learning Outcome 5	Demonstrate effective communication protocol and earthing practices and procedures when earthing HV electrical apparatus for access
Assessment Criteria	5.1 Identify the requirements for isolation from primary and secondary voltages necessary for safe access under access authority conditions 5.2 Identify the dangers of the application of earth devices to high voltage apparatus 5.3 Identify and correctly use personal protective equipment (PPE) and safety equipment required for the safe application of high voltage earthing devices 5.4 Demonstrate the application of a systematic Approach to Earthing

Learning Outcome 6	Describe the purpose, preparation and procedure for use of operational forms, access authorities and permits associated with HV switching
Assessment Criteria	6.1 Identify the various formal options available for managing work in the vicinity of high voltage apparatus 6.2 Describe the need for maintaining security of high voltage installations, and for controlling the activity of people in these areas 6.3 Prepare barriers and signs for the safe access to nominated high voltage apparatus 6.4 Describe the Access Authority procedure, the responsibilities of people involved and its application in the workplace 6.5 Identify the requirements of additional access authorities associated with access to high voltage apparatus
Learning Outcome 7	Issue and cancel access authorities appropriate to the nominated tasks
Assessment Criteria	7.1 Identify the procedures for the completion, issue and cancellation of an Electrical Access Authority 7.2 Prepare an Electrical Access Authority in accordance with accepted procedures and practices, which clearly defines safety precautions relating to access to high voltage apparatus 7.3 Conduct preliminary discussions with work party ensuring that the task can commence safely and issue an Electrical Access Authority for a specified task 7.4 Confirm work is completed and cancel Electrical Access Authority in accordance with procedures

Learning Outcome 8	Describe the functions and operation of common high voltage protection systems and suppression functionality
Assessment Criteria	8.1 Describe the functions and operation of protection systems 8.2 Identify relay indications that would occur for nominated faults on the high voltage system 8.3 Identify protection schemes 8.4 Describe the control circuit and supply system for protection systems
Learning Outcome 9	Describe the process of identifying and switching the HV network in fault situations
Assessment Criteria	9.1 Describe how to effectively identify a faulted section of apparatus 9.2 Explain how to efficiently isolate the faulted apparatus and restore supply under direction of the Control Centre 9.3 Describe the actions needed to liaise with emergency services 9.4 Demonstrate the actions necessary to coordinate on site repairs with work parties

Module purpose	This module will provide the learner with the knowledge and skills to enable them to work on or near Live Low Voltage apparatus
For whom	All workers who are required to work on live low voltage apparatus at ground level. This program does not include or replace training required for Cable Jointers or Lineworkers performing their work
Frequency	Three yearly
Summary of content	• The Green Book • Industry work practices and procedures • Live low voltage work practices and procedures ~ Protection from electric shock ~ Personal Protective Equipment • Live LV panel rescue • Risk assessment • Role and responsibility of the “Safety Observer • Asset identification and their inherent hazards • Specialised equipment ~ Insulating mats and covers ~ Insulated tools
Learning outcomes	On successful completion of the module the learner should be able to:
Learning outcome 1	Identify the general safe work practices, safety instructions, organisational policies and procedures.
Assessment criteria	1.1 Identify and explain various clauses within The Green Book relating to working on Live Low Voltage 1.2 Describe the risk assessment process and identify the risks and controls associated with working on ground level live low voltage apparatus 1.3 Describe the correct set up for a rescue situation

Learning outcome 2	Plan, prepare and carry out Live LV electrical work at Ground level
Assessment criteria	2.1 Identify and document the risks and controls appropriate to the task
	2.2 Identify and correctly use personal protective equipment (PPE) and safety equipment for working on live low voltage apparatus
	2.3 Prepare work site to enable work to be performed in a safe manner, and in accordance with regulatory requirements
	2.4 Perform appropriate work methods to replace/install energised LV electrical apparatus and associated hardware
	2.5 Demonstrate safe working practices and procedures associated with working on live low voltage apparatus
	2.6 Demonstrate the correct setup for a live LV panel rescue
Learning Outcome 3	Identify precautions required for working safely on conductive structures
Assessment criteria	3.1 Identify the associated risks in regards to conductive structures
	3.2 Describe the principles of personal separation
	3.3 Describe the work practices for work performed on or near conductive structures
Learning outcome 4	Identify the requirements and responsibilities of a Safety Observer in relation to Live LV work
Assessment criteria	4.1 Identify the roles and responsibilities of a safety observer/s during a Live LV task
	4.2 Identify environmental influences that may contribute to distraction of a safety observer
	4.3 Identify the ergonomic requirements in relation to the positioning of the safety observer to be and to remain effective
	4.4 Identify methods of communication between the safety observer and the Live LV worker/s
	4.5 Demonstrate an understanding of the importance of accepting safety instruction & warnings from a safety observer

Module purpose	This module provides the learner with the knowledge and skills to complete an “Application Form” for specified types of work This module can be used for both refresher training and initial training
For whom	All workers required to make application for specified types of work
Frequency	Three yearly
Summary of content	• Relevant clauses from The Blue Book and The Green Book • Why an Application is used • When an Application is required • Purpose of the Application • Planning timeframes for lodging Applications • The “Application For…” form ~ Information required on the form ~ Associated information required • Overview of associated forms ~ Electrical Access Authority ~ Vicinity Authority ~ Permit to Work ~ Sanctions for Testing ~ Statement of Condition of Apparatus/Plant ~ Notice of Work on Apparatus • Job Planning ~ Identify the job location ~ Identify the work to be done ~ Identify known hazards ~ Determine special requirements • Practical Application writing
Learning outcomes	On successful completion of this module the learner should be able to:

Learning outcome 1

Demonstrate an understanding of the principles and responsibilities of the applicant when making applications for work on various electrical apparatus

Assessment criteria

1.1 Identify the Blue Book and the Green Book clauses applicable to making an application

1.2 Identify the reasons why an application is necessary, its purpose and when an application is required

1.3 Identify the "Application For…" form and the requirements to complete an application for nominated tasks

1.4 Identify the Network operation requirements for nominated tasks and timeframes, involved with the booking of the network and or resources and the timely delivery of paperwork

1.5 Describe the responsibilities of the applicant in relation to preparing and submitting an application

Learning outcome 2

Identify various types of Access Authorities which may be applied for on the Application Form and the associated information required

Assessment criteria

2.1 Describe the requirements for application for:

- ~ Electrical Access Permit
- ~ Sanction for Tests
- ~ Authority to carry out maintenance using live line procedures
- ~ Notification to work on apparatus
- ~ Live Line work / Auto reclose suppressions
- ~ Statements of condition of plant
- ~ High Voltage Switching / Plant Outages
- ~ Vicinity Authority
- ~ Permit to Work
- ~ Statement of Isolation of Low Voltage Apparatus

2.2 Describe the relevant documentation to be submitted with each application for the range of application types

2.3 Interpret design information and electrical diagrams associated with the job

Learning outcome 3	Successfully prepare an application in relation to job planning, design criteria and resource requirements
Assessment criteria	3.1 Identify the job location 3.2 Identify the work to be done 3.3 Identify known hazards 3.4 Determine special requirements 3.5 Determine resource requirements 3.6 Prepare practical examples of applications

Module purpose	This module provides the learner with the knowledge and skills to enable them to isolate & make low voltage dead
For whom	Qualified Lineworkers and Cable Jointers who have the required LV field switching competency and undertake LV field switching
Frequency	3 Yearly
Summary of content	• The Green Book • Industry work practices and procedures • Isolating & making low voltage dead • LV Access Authority/Permits/SILV's • Restoring supply • Paralleling – phase test, primary voltage differences • Switch wire, multi phasing • Risk Assessment
Learning outcomes	On successful completion of the module the learner should be able to:
Learning outcome 1	Identify the policy, procedures, safety instructions and work practices for Making LV Dead
Assessment criteria	1.1 Identify and explain various clauses within The Green Book on Low Voltage Electrical Apparatus relating to making LV Dead 1.2 Describe the risk assessment process and identify and document the risks and controls appropriate to the task 1.3 Describe the requirements for access to LV apparatus under Access Authority conditions 1.4 Describe the requirements for paralleling including; phase testing and testing for primary voltage differences 1.5 Identify the various LV Access Authority/Permits and describe the circumstances where they are used

Learning outcome 2	Isolate, make dead and restore supply to a section of LV apparatus
Assessment criteria	2.1 Demonstrate the safe working practices and work methods used to operate energised LV apparatus
	2.2 Demonstrate isolating and making LV apparatus dead
	2.3 Prepare an Electrical Access Permit in accordance with Network Operator procedures
	2.4 Confirm work is completed and cancel Electrical Access Permit in accordance with Network procedures
	2.5 Demonstrate the method to remove LV bonder/s and restore supply

Module purpose	This module provides the learner with the knowledge and skills to identify, recognise the need for, and adopt methods to control manual handling risks, thereby reducing the frequency of injuries This module can be used for both refresher training and initial training
For whom	All field workers who carry out manual handling tasks
Frequency	3 Yearly
Summary of content	• Occupational Health & Safety Act 2004 • Occupational Health and Safety Regulations 2017 • Hazardous Manual Handling Compliance Code 2019 • Risk Assessment and Control • Effects of manual handling on the body • Factors resulting in manual handling injuries • Preventive back and neck care • Manual handling techniques • Control strategies ~ Work organisation ~ Job & task design • Local manual handling issues
Learning outcomes	On successful completion of this module the learner should be able to:
Learning outcome 1	Identify the regulations and hazards associated with Manual Handling in the workplace
Assessment criteria	1.1 Identify the regulatory requirements for Manual Handling in the workplace 1.2 Undertake risk identification, risk assessment and risk control for tasks involving manual handling in the local work environment
Learning outcome 2	Demonstrate safe manual handling techniques
Assessment criteria	2.1 Identify workplace and personal factors, which may result in manual handling injuries, and implement risk control strategies 2.2 Apply the safe principles of manual handling required to lift, push, pull, carry & restrain

Measuring Conductor Heights Using Telescopic Measuring Sticks

Module purpose	This module provides the learner with the knowledge and skills to measure low and/or high voltage conductor heights using a telescopic measuring stick This module can be used for both refresher training and initial training
For whom	Workers whose task involves the use of insulated sticks as measuring devices on, or in the vicinity of, high and/or low voltage network subject to Network Operator approval. This does not include workers who have the required competencies (e.g. Lineworker, HV switching Operator) in HV and/or LV switching dependant on the voltage being measured.
Frequency	Three yearly
Summary of content	• The Green Book ~ Safe approach distances ~ Personal Protective Equipment ~ Fit state for work ~ Use and inspection of Operating and HV Live Work Sticks ~ Contact with live HV conductors by means of appliances • Risk / Hazard assessment • Electrical Distribution System ~ Apparatus recognition ~ System voltage recognition (Low and High Voltages) • Care and use of insulated measuring sticks ~ Insulated and tested portions ~ Safe use of telescopic sticks o Methods of control o Knocking and bumping fuses o Clashing conductors • Traffic Management awareness

Learning outcomes

On successful completion of this module the learner should be able to:

Learning outcome 1

Describe the function, roles and responsibilities required of a worker measuring conductor height using a telescopic stick

Assessment criteria

1.1 Identify and explain clauses within The Green Book relating to the general safety requirements

1.2 Identify and explain clauses within The Green Book relating to contact with live HV conductors by means of appliances

1.3 Identify and explain clauses within The Green Book relating to the work in the vicinity of electrical apparatus.

1.4 Identify and explain clauses within The Green Book relating to the safe approach to electrical apparatus.

1.5 Identify the use and application of operational procedures related to measuring conductor height with a telescopic stick.

1.6 Describe the risk assessment process including SWMS and JSA's and identify the risks and controls associated with measuring conductor heights using a telescopic stick.

Learning outcome 2

Identify electrical apparatus, equipment and voltages within the Victorian Electrical Distribution System

Assessment criteria

2.1 Identify HV & LV electrical apparatus and equipment used within the electrical distribution networks.

2.2 Identify the Voltages used within the electrical distribution networks.

Learning outcome 3

Identify techniques for the safe use of Telescopic Sticks in relation to measuring the height of conductors

Assessment criteria

3.1 Identify the relevant enterprise procedures for the safe use of Telescopic Sticks in relation to measuring the height of conductors.

3.2 Identify the construction types that can be measured with the safe use of measuring height sticks

3.3 Identify the care and maintenance requirements for HV insulating sticks including:

- Storage
- Inspection of equipment prior to use
- Electrical testing of HV sticks

Measuring Conductor Heights Using Telescopic Measuring Sticks

Learning outcome 4	Demonstrate the safe use of Telescopic Sticks in relation to measuring the height of conductors
Assessment criteria	4.1 Complete a Job Safety Assessment (JSA) prior to commencing a task including hazard identification, risk assessment and risk control
	4.2 Demonstrate the identification of HV & LV conductors and the hazards at the worksite
	4.3 Measure and record conductor heights at nominated locations
	4.4 Demonstrate the correct ergonomic use of a telescopic stick
Learning outcome 5	Identify the traffic management requirements for short term work
Assessment criteria	5.1 Identify the requirements for short term works as identified in the Victorian Traffic Management Act and/or Code of Practice

No Go Zone Assessor

Please refer to the Network Operator for specific training requirements.

Frequency Three Yearly

Receive Sanction for Testing

Module purpose	This module provides the learner with the knowledge and skills to receive Sanction for Testing (SFT) as required by The Blue Book and The Green Book This module can be used for both initial and refresher training
For whom	For High Voltage Testers who will be required to receive SFT for the purpose of gaining access to electrical apparatus to perform electrical testing that cannot be completed under the terms of an Electrical Access Permit (EAP)
Frequency	Three yearly
Summary of content	• The Blue Book and The Green Book • Organisational Requirements • Use of a “SFT” • SFT information requirements • Responsibilities of the Authorised Tester • Responsibilities of the Tester in Charge • Responsibilities of the Tester in Charge at a remote location • Issue and cancellation of the SFT ~ Communications process • Dealing with changes to plant conditions, SFT conditions and an emergency on site • Uses of isolation, earthing, tagging, locking, barriers and notices as applicable to SFT • Hazards associated with carrying out tests in a live environment • High potential test not shorting out current transformers • Operation of back up earth leakage • Identification and application of additional safety precautions to protect people, continuity of supply and the asset • Protective Safety apparel • Precautions for safe entry into High Voltage (HV) enclosures

Learning outcomes	On successful completion of this module the learner should be able to:
Learning outcome 1	Identify the requirements of the SFT Procedures used within the Electrical Supply Industry
Assessment criteria	1.1 Identify and explain various clauses within The Blue Book or The Green Book relating to the Sanction for Testing Procedure and the access of HV and Low Voltage (LV) electrical apparatus under an SFT 1.2 Describe the information required for the completion of the SFT form 1.3 Define the responsibilities of the Tester in Charge and a Tester at a remote location 1.4 Define the responsibilities of the Authorised Tester and test party 1.5 Identify the communication process used between a work party and the operator including issue, cancellation and dealing with changes to plant conditions, SFT conditions and an emergency on site 1.6 Demonstrate an understanding of the relevant business' organisational procedures
Learning outcome 2	Identify the hazards associated with electrical apparatus in a manner other than prescribed by the EAP procedure
Assessment criteria	2.1 Describe how isolations, earthing tagging, locking, barriers and notices are used within the SFT process. 2.2 Identify the test equipment to be used and the safety hazards they may introduce, either to the apparatus, workers or the public 2.3 Identify and apply additional safety precautions to protect people, continuity of supply and the asset
Learning outcome 3	Demonstrate the ability to safely and effectively be a tester in charge of a test site with due consideration of the task at hand, members of the work party and the general public
Assessment criteria	3.1 Describe the responsibilities of the Tester in Charge in relation to: ~ Forms and documents ~ Risk Assessment ~ Work Procedures ~ Equipment and plant 3.2 Demonstrate an acquired knowledge of the SFT process through participation in a practical exercise

Module purpose	This module provides the learner with the knowledge and skills to implement a “Safe to Approach” inspection and test procedure to high voltage electrical apparatus This module can be used for both refresher training and initial training
For whom	All workers who perform work in the vicinity of Single Wire Earth Return (SWER) electrical apparatus
Frequency	Three Yearly
Summary of content	• The Blue Book or The Green Book • SWER Safe to Approach procedure • Apparatus with internal phase to earth supply • Faulty earthing systems ~ Associated dangers ~ Symptoms of faulty earth systems ~ SWER earth repair • Equipment requirements • Results and action to be taken • Energising SWER Substations
Learning outcomes	On successful completion of this module the learner should be able to:
Learning outcome 1	Identify electrical hazards related to earthing systems
Assessment criteria	1.1 Explain how earthing systems function. 1.2 Identify the dangers and symptoms associated with faulty earths in a phase to earth system
Learning Outcome 2	Safely approach apparatus with phase to earth systems
Assessment criteria	2.1 Identify the methods used to minimise risks associated with damaged earth systems 2.2 Perform a “Safe to Approach” test
Learning Outcome 3	Identify the procedure to energise a SWER substation following earthing system repairs
Assessment criteria	3.1 Identify the possible hazards associated with energising SWER substations 3.2 Identify the methods used to energise a SWER substation upon completion of earthing system repairs and place on load

Module purpose	This module provides the learner with the knowledge, skills, and competencies to conduct a “Safe to Climb” test This module can be used for both refresher training and initial training
For whom	All workers who are required to work aloft on pole structures
Frequency	Three yearly
Summary of content	Safe to Climb Test • Push and rope tests • Pole types • Categories of poles ~ Serviceable ~ Limited Life poles ~ Unserviceable poles • Visual inspection of poles ~ Identification discs ~ Fungi, wood rot, white ants ~ Lightning damage, splitting, burns ~ Cracked concrete, rust ~ Leaning poles, hardware • Staked and re-butted poles • Types of detection tests • Supporting leaning poles • Ladders
Learning outcomes	On successful completion of this module the learner should be able to:
Learning outcome 1	Identify the requirements for conducting an inspection of a pole prior to climbing
Assessment criteria	1.1 Identify the reasons for and methods used when performing a safe to climb test prior to climbing poles 1.2 Identify defects that affect the strength of wood, concrete, and steel poles 1.3 List the categories and appropriate markings allocated to poles upon completion of an inspection 1.4 Identify the affect that staking and re-butting has on the classification of the pole 1.5 Identify the requirements for minor and major works

Learning outcome 2	Identify and demonstrate the methods used to determine a pole is safe to climb
Assessment criteria	2.1 Identify and demonstrate the methods of performing a safe to climb test prior to climbing a pole, (for example push or rope test) 2.2 Identify methods to make a pole safe to climb
Learning outcome 3	Demonstrate the knowledge and skills in the safe use of a ladder
Assessment criteria	3.1 Demonstrate the correct safe use and handling of ladders to the relevant standards, codes of practice and regulations
Learning outcome 4	Describe the requirements to maintain balanced loads on poles during maintenance activities
Assessment criteria	4.1 Identify the forces exerted on poles in a variety of situations including intermediate, strain, tee-off and angle poles 4.2 Identify the activities that may affect the forces being exerted on the structures and the possible consequences of altered loadings 4.3 Describe suitable methods to provide temporary support to structures where construction activities may affect the forces exerted on the structure or adjacent structures

Module purpose	This module provides the learner with the underpinning knowledge and skills to understand key principles of environmental management This module can be used for both refresher training and initial training
For whom	All workers who are required to work on, near or in the vicinity of the electricity network assets
Frequency	Three yearly
Summary of content	• Environmental Legislation • Environmental Management Systems (EMS) • Air Emissions • Containment of contaminated water • Waste Management • Chemical Management • Flora & Fauna protection • Weed and disease management • Cultural Heritage • Noise and Vibration
Learning outcomes	On successful completion of this module the learner should be able to:
Learning outcome 1	Explain the basic legal requirements of Environmental Legislation
Assessment criteria	1.1 State the aims and objectives of The Environment Protection Act 2017 1.2 Explain the Role of the Environment Protection Authority (EPA) and powers of their officers and how to deal with them 1.3 Define the employee's responsibilities in accordance with relevant statutory requirements
Learning outcome 2	Explain the importance of an environmental management system (EMS) and the basic elements of the system
Assessment criteria	2.1 Describe key areas of an EMS 2.2 Describe the process of reporting incidents (external and internal)
Learning outcome 3	Explain the basic principles of managing air emissions
Assessment criteria	3.1 Identify possible air emission sources 3.2 Explain why it is necessary to limit air emissions from existing sites and construction sites

Learning outcome 4	Identify the basic principles of the containment of contaminated water
Assessment criteria	4.1 Explain why it is necessary to contain sediment runoff from worksites 4.2 Identify how to prevent and contain sediment run-off from work sites
Learning Outcome 5	Explain the basic principles of waste management
Assessment criteria	5.1 Explain the waste hierarchy 5.2 Identify possible wastes generated in the electricity supply field 5.3 Outline the processes for management of contaminated soil and potential acid sulphate soils (PASS) 5.4 Outline the processes for management of asbestos including disposal 5.5 Outline the processes for management of Poly Chlorinated Biphenyl (PCB) including disposal 5.6 Outline the processes for management of Copper Chrome Arsenate (CCA)/Creosote poles including disposal
Learning outcome 6	Describe how to manage, store and handle chemicals including spills and disposal of clean up materials
Assessment criteria	6.1 State the environmental risk and impact of storage and handling of chemicals including high risk activities 6.2 Describe how to contain a spill effectively including reference to the Safety Data Sheet (SDS) 6.3 Identify a clear understanding of procedures for reporting a spill incident, who must be notified and correct disposal of spill material
Learning outcome 7	Identify the basic principles of flora and fauna protection
Assessment criteria	7.1 Describe what constitutes native vegetation 7.2 Describe why it is necessary to protect native vegetation 7.3 Describe the controls to protect flora and fauna
Learning outcome 8	Identify the basic principles of weeds and diseases management
Assessment criteria	8.1 Describe why it is important to prevent and contain weeds and diseases 8.2 Identify how to prevent and contain weeds and diseases, including vehicle hygiene

Learning outcome 9	Identify the basic principles of cultural heritage and site management
Assessment criteria	9.1 Describe what cultural heritage encompasses and understand what activities could disturb cultural heritage
	9.2 Detail processes for protecting cultural heritage and what to do when accidental discovery occurs
Learning outcome 10	Identify the basic principles of noise and vibration site management
Assessment criteria	10.1 Describe why it is important to prevent and control noise and vibration
	10.2 Identify how to protect and control noise and vibration

Module purpose	This module provides the learner with the knowledge to understand the purpose and intention of the Occupational Health & Safety (OH&S) Act and associated legislations and regulations This module can be used for both refresher training and initial training
For whom	All VESI workers who are required to work on, near or in the vicinity of the electricity network assets
Frequency	Three yearly
Summary of content	• OH&S Act • • General duty of care • Rights and responsibilities of employers and employees • Legislations and Regulations update • Australian Standards update • Risk Assessment process • Incident reporting • Prevention of Falls Regulations and Codes of Practice • Asbestos Management • Site Preservation • OHS Management System • Driving • Noise • Dangerous Goods and Hazardous Substances • Confined Space • Mobile & Portable Plant & Equipment • Traffic Management • Excavation Work • Customer / Public Aggression • Fitness for Work • Bullying and Harassment • Mental Health
Learning outcomes	On successful completion of this module the learner should be able to:
Learning outcome 1	State the basic legal requirements of the OH&S Act
Assessment criteria	1.1 State the aims and objectives of the OH&S Act 1.2 Explain what is meant by duty of care 1.3 Identify the responsibilities of employers and employees according to the OH&S Act

Learning outcome 2	Identify the importance of compliance with relevant Legislation, Regulations and VESI codes of practices relating to OH&S
Assessment criteria	2.1 Describe the important features and implications of legislation relevant to the workplace
Learning outcome 3	Identify the requirements of performing a job safety assessment (JSA) to determine possible workplace hazards and assigning appropriate risk control measures
Assessment criteria	3.1 State the purpose of performing a JSA 3.2 Describe the process of hazard identification and the allocation of suitable risk control measures to overcome the identified risk
Learning outcome 4	Demonstrate the requirements for reporting accidents and incidents as required by the Energy Safe Victoria (ESV), WorkSafe Victoria and within the workplace
Assessment criteria	4.1 Identify the employers and employees' responsibilities related to the reporting of accidents or incidents that occur in the workplace 4.2 Identify the information that is to be recorded in the register of injuries by the employers in the event of an incident or accident occurring
Learning outcome 5	Demonstrate an understanding of the regulatory requirements for the prevention of falls in the workplace
Assessment criteria	5.1 Identify the responsibilities of the employer with regards meeting the requirements of the Compliance Code "Prevention of falls in general construction 2019 5.2 Identify the responsibilities of the employee with regards meeting the requirements of the Compliance Code "Prevention of falls in general construction 2019 5.3 Identify the definitions of the terms used within the Compliance Code "Prevention of falls in general construction 2019 5.4 Describe practical examples relevant to the electrical distribution industry of: ~ Passive fall prevention ~ Work Positioning systems ~ Fall injury prevention systems ~ Administrative control 5.5 Describe the process of task assessment, risk assessment and use of the hierarchy of risk control measures

Learning outcome 6	Identify the hazards and regulations associated with handling material containing asbestos fibre
Assessment criteria	6.1 Describe the personal dangers of coming into contact with materials containing asbestos fibre 6.2 Identify common materials, apparatus and locations within the work environment that have been or could be identified as being an asbestos risk 6.3 Identify the regulatory requirements for the safe handling of materials within the work environment identified as being an asbestos risk

Wash HV Insulators

Please refer to the Network Operator for specific training requirements.

Frequency Three Yearly

Working on energised low voltage overhead electrical apparatus - UETDRMP012

This Competency Standard Unit is published at www.training.gov.au.

When delivering the CSU, the following VESI requirements including the learning outcomes and assessment criteria shall be undertaken.

Delivery	This Competency Standard Unit shall be delivered by an RTO for initial, competency assessment and refresher training.
Module purpose	This module provides the learner with the knowledge and skills required to perform overhead energised low voltage work. This does not include the connection of overhead services
For whom	For Lineworkers Qualified and Licenced to perform energised LV work
Frequency	Three yearly
Summary of content	• The Green Book • Industry work practices and procedures • Live LV Safe work practices which may include working from EWP's or ladders • Hazard and risk assessment process • Use, inspection and care of tools, equipment, and PPE ~ Insulating mats/sleeves ~ Temporary bridging devices/hopper ~ Insulating gloves ~ Tensioning devices ~ Pole shrouds • 8 most important things for working on live LV • Safety observer role and responsibilities ~ ergonomics ~ distraction ~ communication • Conductive Structures Procedures ~ Personal separation/body position ~ Cables on conductive poles ~ Tram/Train structures ~ Traction Electrolysis Cables ~ Roofs/verandas ~ Communications cables/catenaries ~ Supervisory Cables • Practical Demonstration

Learning outcomes	On successful completion of the module the learner should be able to:
Learning outcome 1	Identify the policy, safety instructions and general safe work practices and procedures for live LV work
Assessment criteria	1.1 Identify and explain various clauses within The Green Book relating to working on Live Low Voltage 1.2 Describe the risk assessment process and identify and document the risks and controls appropriate to the task 1.3 Identify the general safe work practices for working on live low voltage 1.4 Describe the correct set up for a rescue situation
Learning outcome 2	Plan, prepare and carry out Live LV electrical work
Assessment criteria	2.1 Identify and document the risks and controls appropriate to the task 2.2 Identify and correctly use personal protective equipment (PPE) and safety equipment for working on live low voltage apparatus 2.3 Identify and inspect the appropriate tools used for live LV work 2.4 Prepare work site to enable work to be performed in a safe manner, and in accordance with regulatory requirements 2.5 Demonstrate the “8 most important things” when working on Live LV appropriate to the work location 2.6 Demonstrate the correct setup for a rescue situation 2.7 Perform appropriate work methods to replace/install LV electrical apparatus and associated hardware with conductors energised 2.8 Demonstrate the safe working practices and procedures associated with working on live low voltage apparatus 2.9 Completed work is checked for compliance against workplace requirements

Learning Outcome 3	Identify precautions required for working safely on conductive structures
Assessment criteria	3.1 Identify the associated risks in regards to conductive structures ~ Cables on conductive poles ~ Tram/Train structures ~ Traction Electrolysis Cables ~ Roofs/verandas ~ Communications cables/catenaries ~ Supervisory Cables 3.2 Describe the principles of personal separation 3.3 Describe the work practices for work performed on or near conductive structures
Learning outcome 4	Identify the requirements and responsibilities of a Safety Observer in relation to LV Live work
Assessment criteria	4.1 Identify the roles and responsibilities of a safety observer/s during a Live LV task 4.2 Identify environmental influences that may contribute to distraction of a safety observer 4.3 Identify the ergonomic requirements in relation to the positioning of the safety observer to be and remain effective 4.4 Identify methods of communication between the safety observer and the Live LV worker/s 4.5 Demonstrate an understanding of the importance of accepting safety instruction & warnings from a safety observer

This Competency Standard Unit is published at www.training.gov.au.

When delivering the CSU, the following VESI requirements including the learning outcomes and assessment criteria shall be undertaken.

Delivery	This Competency Standard Unit shall be delivered by an RTO for initial, competency assessment and refresher training.
Module purpose	This module provides the learner with the knowledge and skills required to perform underground energised low voltage work. This does not include the connection of underground services
For whom	For workers Qualified and Licenced to perform energised LV cable jointing
Frequency	3 Yearly
Summary of content	• The Green Book • Industry/enterprise work practices and procedures • Live LV cable jointing work practices and procedures • Live LV work at Ground level work practices and procedures • Hazard and risk assessment process • Use, inspection and care of tools, equipment, and PPE ~ Insulating mats and covers ~ Insulating gloves • Safety observer role and responsibilities ~ ergonomics ~ distraction ~ communication • Cable testing procedures • Safety with LPG equipment • Conductive Structures Procedures ~ Personal separation/body position ~ Cables on conductive poles/structures ~ Communications cables/catenaries • Practical demonstration

Learning outcomes	On successful completion of the module the learner should be able to:
Learning outcome 1	Identify the general safe work practices and procedures for live LV cable jointing
Assessment criteria	1.1 Identify and explain the clauses within The Green Book relating to working on Live Low Voltage 1.2 Describe the risk assessment process and identify and document the risks and controls appropriate to the task 1.3 Describe the set up for a rescue situation
Learning outcome 2	Plan and prepare for Live LV electrical work
Assessment criteria	2.1 Obtain and correctly interpret all relevant procedures in preparation of performing the work 2.2 Identify and interpret all technical drawings required to complete the task 2.3 Identify the personal protective equipment (PPE) and safety equipment for live LV work 2.4 Identify the resources required including plant, tools, and equipment 2.5 Prepare work site to enable work to be performed in a safe manner, and in accordance with regulatory requirements 2.6 Identify the tasks that can be carried out using live work techniques 2.7 Identify the safe working practices and procedures associated with working on live low voltage apparatus

Learning outcome 3	Demonstrate the work practice for jointing and testing live low voltage underground cables
Assessment criteria	3.1 Prepare cable in accordance with industry jointing practices 3.2 Demonstrate the correct setup for a rescue situation 3.3 Demonstrate a Live LV cable joint using the appropriate workplace procedures 3.4 Demonstrate the safe working practices and procedures associated with working on live low voltage apparatus 3.5 Conduct an insulation resistance and continuity test 3.6 Conduct a polarity and Neutral and Supply Test (NST) where required 3.7 Conduct a phase sequence test where required 3.8 Completed work is checked for compliance against workplace requirements
Learning Outcome 4	Identify precautions required for working safely on conductive structures
Assessment criteria	4.1 Identify the associated risks in regards to conductive structures ~ Cables on conductive poles/structures ~ Roofs/verandas ~ Communications cables/catenaries 4.2 Describe the principles of personal separation 4.3 Describe the work practices for work performed on or near conductive structures
Learning outcome 5	Identify the requirements and responsibilities of a Safety Observer in relation to LV Live work
Assessment criteria	5.1 Identify the roles and responsibilities of a safety observer/s during a Live LV task 5.2 Identify environmental influences that may contribute to distraction of a safety observer 5.3 Identify the ergonomic requirements in relation to the positioning of the safety observer to be and remain effective 5.4 Identify methods of communication between the safety observer and the Live LV worker/s 5.5 Demonstrate an understanding of the importance of accepting safety instructions & warnings from a safety observer

Initial Training

ESI safety rules for work on, near or in the vicinity of electrical apparatus - UETDRMP002

This Competency Standard Unit is published at www.training.gov.au

Frequency Initial only

Delivery This Competency Standard Unit shall be delivered by an RTO

Install and replace energy meters and associated equipment - UETDRIS014

This Competency Standard Unit is published at www.training.gov.au

Frequency Initial only

Delivery This Competency Standard Unit shall be delivered by an RTO

Work safely in the vicinity of live electrical apparatus as a non-electrical worker - UETDREL006

This Competency Standard Unit is published at www.training.gov.au

Frequency Initial only

Delivery This Competency Standard Unit shall be delivered by an RTO

Special Reader

Module purpose:

This module provides the learner with the knowledge and skills to safely perform Special Meter Reader duties

This module can be used for both refresher training and initial training

For whom:

Special Readers

Frequency:

Initial Only

Delivery:

Shall be delivered by a training organisation approved by the Network Operator

Summary of content:

- Network Operator, VESI and Australian Standards,
- Basic Electrical Theory
- Distribution systems of supply
- Working safely near live electricity
  - ~ Correct use of PPE
  - ~ JSA's and SWMS
  - ~ Correct Circuit identification
  - ~ Hazardous and illegal wiring
  - ~ Alternate supplies
- Premise identification
  - ~ Single/multiple occupancy
  - ~ Network Operator Service and/or Trouble Order procedures
- Circuit protection
  - ~ Correct fuse type and size
- Meter types and meter arrangements
  - ~ Electromechanical
  - ~ Electronic
  - ~ Advanced Metering Infrastructure
  - ~ CT Metering
  - ~ Meter enclosures and power industry keys
  - ~ Customer equipment (contactors, CB's SCCD's)
- Tariff standards
  - ~ Metrology procedures
- Isolation processes
  - ~ Isolation methods, fuse extraction sticks
  - ~ No access to isolation points
  - ~ Isolation confirmation

Summary of content (cont.):

- Meter reading
  - ~ Electromechanical
  - ~ Electronic
  - ~ Advanced Metering Infrastructure
- Record keeping
  - ~ Portable data entry devices
- Re-energisation processes
  - ~ Re-connection confirmation e.g. meter rotation
- Security of metering equipment
  - ~ Meter tampering
  - ~ Sealing equipment

Learning outcomes

On successful completion of this module the learner should be able to:

Learning outcome 1

Identify the relevant Australian Standards, VESI and Network Operator procedures related to the Special Reader role

Assessment criteria

1.1 Identify and explain various clauses within relevant industry standards

1.2 Describe the risk assessment process and identify and record the risks and controls associated with the Special Reader function

1.3 Describe the Network Operator work instructions and safety standards

Learning outcome 2

Understand the basics of electrical theory and Victorian electricity distribution systems

Assessment criteria

2.1 Describe the basics of Ohms Law and the principles of circuit protection

2.2 Explain what is meant by duty of care

2.3 Demonstrate an understanding of Victorian low voltage service connections including overhead and underground, single and multi-phase connections including correct circuit identification

2.4 Describe the effect that electricity has on the human body

Learning outcome 3	Understand the minimum requirements to ensure worker safety at customer installations
Assessment criteria	3.1 Correctly identify and select the personal protective equipment (PPE) for the task 3.2 Identify the risks and controls appropriate to the task (SWMS and JSA) 3.3 Prepare work site to enable work to be performed in a safe manner, and in accordance with Network Operator requirements 3.4 Correctly identify the reporting requirements for illegal and/or hazardous wiring arrangements 3.5 Identify the types of alternate supplies and describe the hazards they can create
Learning outcome 4	Be able to correctly identify a customer premises
Assessment criteria	4.1 Correctly identify installations within a single and or multiple occupancy arrangement
Learning outcome 5	Identify the different types of meter arrangements and the and customers equipment
Assessment criteria	5.1 Identify the correct fuse sizes for the different types of installation arrangements 5.2 Identify and describe all meter types used by the Network Operator 5.3 Describe differing types of meter enclosures and the correct use of Power Industry keys 5.4 Describe the differing types of customer equipment found in meter enclosures
Learning outcome 6	Describe the purpose of tariffs and the differing types according to Victorian Metrology Procedures
Assessment criteria	6.1 Demonstrate an understanding of tariff types 6.2 Identify and ensure correct tariffs are applied at customer premises

Learning outcome 7	Demonstrate effective isolation processes to ensure safe work
Assessment criteria	7.1 Identify the correct isolation point for various installation types 7.2 Demonstrate correct isolation procedures and confirm isolation 7.3 Describe the process to respond to no access to isolation points
Learning outcome 8	Demonstrate an understanding of various meter reading methods
Assessment criteria	8.1 Demonstrate the ability to accurately read all relevant meter types
Learning outcome 9	Demonstrate effective isolation processes to ensure safe work
Assessment criteria	9.1 Demonstrate correct and accurate record maintenance according to Network Operator requirements 9.2 Demonstrate an ability to read and respond to Network Operator Service and Trouble Orders
Learning outcome 10	Demonstrate effective record keeping methods
Assessment criteria	10.1 Identify and demonstrate the correct re-energisation point for various installation types 10.2 Demonstrate correct re-energisation procedures and confirm re-connection
Learning outcome 11	Demonstrate effective record keeping methods
Assessment criteria	11.1 Demonstrate the purpose and correct method and tools to undertake sealing of Network Operator equipment

Learning outcome 7	Demonstrate effective isolation processes to ensure safe work
Assessment criteria	7.1 Identify the correct isolation point for various installation types 7.2 Demonstrate correct isolation procedures and confirm isolation 7.3 Describe the process to respond to no access to isolation points
Learning outcome 8	Demonstrate an understanding of various meter reading methods
Assessment criteria	8.1 Demonstrate the ability to accurately read all relevant meter types
Learning outcome 9	Demonstrate effective isolation processes to ensure safe work
Assessment criteria	9.1 Demonstrate correct and accurate record maintenance according to Network Operator requirements 9.2 Demonstrate an ability to read and respond to Network Operator Service and Trouble Orders
Learning outcome 10	Demonstrate effective record keeping methods
Assessment criteria	10.1 Identify and demonstrate the correct re-energisation point for various installation types 10.2 Demonstrate correct re-energisation procedures and confirm re-connection
Learning outcome 11	Demonstrate effective record keeping methods
Assessment criteria	11.1 Demonstrate the purpose and correct method and tools to undertake sealing of Network Operator equipment

Appendix 3 – Version Control

DATE	VERSION	AMENDMENT	NAME
December 2022	10	**Training Guideline** Inclusion of reference to the VESI Vegetation Skills and Training matrix in section 4 General updates of wording Removed reference to Lineworker Registration Updated section 7 on Electrical Licensing Updated section 10 Training and Assessment requirements Updated section 9 delivery requirements Removed section on ESI Passport Added section 13 on the ESI worker system Update to section 15 Definitions Skills and Training Matrix Role Descriptions. Added the role of: – Civil worker – Zone and Terminal Substation – Supervisor / Team Leader – Stations – Terminal and Zone Substation Transformer Technician – Lineworker Distribution HV Live Work Appendix 2 – Training Modules / Competency Standard Units: – Added frequency headings (annual, 3 yearly and Initial). – Alphabeltilised all Competency/module headings – Updated National Qualification and Units of Competence names and codes – Updated the delivery requirements for the new mobility and portability (MP) units. These have replaced the refresher training units names, codes and delivery requirements – Update to general wording and names – Testing of connections to low voltage electricity networks – UETTDRRF11A • Table 1 Added note[1] in regards to mandatory test requirements for Lineworkers • Added Assessment Criteria 2.5 to Learning outcome 2 – Enter Enclosures • Added Assessment Criteria 3.3 to Learning outcome 3 – In all classes of HV switching modules (RSO, DSO, DS, ZSS, TSF, TS) for Learning outcomes 2 & 4 the assessment criteria has been updated to include pre-operation inspection and associated hazards when operating switchgear – High Voltage (HV) Switching – DSO (Distribution Switching Overhead) • For Learning outcome 2 Assessment Criteria 2.7 has been added – Added two new National Units of Competence to replace modules Live Low Voltage Work – Overhead and Live Low Voltage Work – Undergound: • Working on energised low voltage overhead electrical apparatus UETDRMP012 • Working on energised low voltage underground electrical apparatus UETDRMP013	STRC

DATE	VERSION	AMENDMENT	NAME
December 2022	10	**Training Matrix** Updated the National Qualification and Units of Competence names and codes Added the new role of Lineworker Distribution HV Live Work Added Lineworker Licences for Cable Jointer, Lineworker Distribution and Lineworker Transmission roles Added competency unit UETDRIS014 - Install and replace energy meters and associated equipment for the Metering Technician role Added two new National Units of Competence to replace modules Live Low Voltage Work – Overhead and Live Low Voltage Work – Undergound: – Working on energised low voltage overhead electrical apparatus UETDRMP012 – Working on energised low voltage underground electrical apparatus UETDRMP013 Updated name of High Voltage Live Work - Vehicle Mounted Crane Operator to High Voltage Live Work - Vehicle Loading Crane Operator	STRC

DATE	VERSION	AMENDMENT	NAME
November 2022	9	Updated the HV switching assessment criteria in Learning outcome 2 & 4 in all classes of HV switching to include pre-operation inspection and associated hazards when operating switchgear	STRC

DATE	VERSION	AMENDMENT	NAME
May 2017	8	**Training Guideline** Added new description for a Cable Hauler Removed Restricted Cable Jointer role Updated the VESI Environmental Framework content Updated the Testing of connection to low voltage electricity networks module: – to separate the delivery and assessment requirements – made significant changes to Table 1 – Added Learning outcome 2 - Identify the requirements for an electrical installation worker disconnecting or reconnecting a consumers mains or submains neutral and assessment criteria – Added assessment criteria - Demonstrate an understanding of a Statement of Isolation Low Voltage (SILV) **Training matrix** Lay ESI electrical cables, removed reference to National Competency as requested by VEDN High Risk Work Licences added for Dogging, Rigging, Crane and EWP Created new role of Cable Hauler Created Note 14 – refer to VEDN for training module content Removed A (Additional) for the Advanced Diploma of ESI – Power Systems for the role of HV Switching Operator Removed A (Additional) for Plant Operator in Receive Access Permits Note 7 removed – "An existing worker, who was previously classified as a Cable Jointer (Restricted) shall obtain the Certificate III in ESI – Cable Jointing by July 2016" as there are no more Cable Jointer (Restricted) in the industry Changed the colour format to allow for an easy reference for a Role.	STRC

DATE	VERSION	AMENDMENT	NAME
February 2016	7	**Training guideline** Added new Vegetation role descriptions for assessor and Specialist Plant Operator Added paragraph in clause 5 qualifications in regards to interstate workers Added note in training and assessment requirements. Records that indicate attendance only will not be accepted Added references to the following vesi documents that support this guideline: Apprentice / Trainee supervision, Interstate, Overseas and re-Entry guidelines Changed module name from High Voltage Live work pole replacement for pole erection recovery unit operators to High Voltage Live Work - Pole erection recovery unit (peru) operator Created new module, High Voltage Live Work - Vehicle Mounted Crane Operator Created new module, Safe Approach Distance – Vegetation work Added LV Perform low voltage switching operation to a given schedule – UETTDRIS43A as a prerequisite for HV switching RSO, DSO and DS Added note for Safe Approach Distances, Learning outcome 3 is only required for workers undertaking overhead work Updated Traffic Management training requirements to specify CSU: Control traffic with stop-slow bat - RIIWHS205D, Traffic Management: Implement traffic management plan - RIIWHS302D Minor changes to the assessment criteria in the authority modules **Training matrix** Changed module name to High Voltage Live Work - Pole Erection Recovery Unit (PERU) Operator and added Note 11 Updated Traffic Management training requirements to specify the Competency Standard Units Updated the Certificate II in Asset inspection to the National Competency Standard Unit Code Added Lay ESI Cables as an Additional requirement for the Civil Worker role when undertaking Cable Hauling, refer to Note 10 Added Make Application for to Additional for the No Go Zone Assessor role Added Making LV Dead as Additional for the HV Switching Operator (Distribution) role Added training module - High Voltage Live Work - Vehicle Mounted Crane Operator, refer to Note 12 for the Plant Operator role Removed the requirement for Lineworker Registration as this is a non-mandatory requirement, applications will still be processed by Network Operators upon receipt, information on the Registration process is available on the ESV website Removed the Vegetation Worker roles from the matrix and included a note to refer to the VESI Vegetation Management Guideline for all Vegetation training requirements Removed Standard (AMI) Electrical Meter Installation 22001VIC in the Qualification section Removed the role of Cable Jointer (Restricted) and added Note 7 Removed LV Cable Jointing Certificate in the Qualification section Reordered the Notes to align with a logical order in the matrix	STRC

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November 2014	6	**Training Guideline** Created section 4.1 Apprentices and Trainees. Added the minimum access requirements for new Apprentices and Trainees when initial VESI training is delayed. Updated the Testing of Connections to Low Voltage Electricity Networks delivery requirements and added table 1 outlining the required testing procedures for applicable roles. Revised the wording for the PPE requirements throughout the document for consistency Added new training modules; Measuring Conductor Heights Using Telescopic Measuring Sticks, Special Reader and Making LV Dead Added new learning outcomes for Conductive structures into modules Live Low Voltage (LV) Work - Cable Jointing and ground work Removed learning outcome 3 Isolate, make dead and restore supply to a section of lv apparatus from live low voltage (LV) work – overhead module due to the creation of new module Making LV Dead **Training matrix** Made Testing of Connections mandatory for the Electrical Inspector role Updated CSU numbers for the First Aid units Added Testing of Connections for Electrical Inspectors Added training module – Making LV Dead Added training module - Measuring conductor heights using telescopic measuring sticks	STRC
November 2013	5	**Training Guideline** Changed the name and updated references for the Blue Book and the Green Book Separated section 5 Qualifications and Licensing / Registration Included paragraph in regards to the requirements when the VESI update National Qualification and Competencies and there unit numbers. Added definitions for the Blue Book and the Green Book Added No Go Zone Assessor to appendix 1 – Skills and Training matrix role descriptions Added new competency unit - Undertake release and rescue from a tree near live electrical apparatus - UETTDRVC34A Added new learning outcome 1 to Safe Approach Distance module **Training matrix** Added Aerial Rescue for Tree Climbers Included switching classes to note 16 Included No Go Assessor role and training module Included Jemena to note 6 in regards to SWER	STRC

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July 2012	4	Added the following training modules previously in the VESI HV live work rules: • High Voltage Live Work pole replacement for Pole Erection Recovery Unit operators • Limited High Voltage Live Work (Vegetation control) Changed Servicing procedures module name to the new National Competency Standard unit, Testing of Connections to Low Voltage Electricity Networks – UETTDRRF11A Incorporated the training requirements for Confined space Updated the Traffic Management modules to meet new Vic Roads training requirements • RIIOHS205A Control traffic with a stop/slow bat • RIIOHS302A Implement traffic management plan or equivalent Changed National Qualification and Competency Standard Unit (CSU) names and unit numbers to reflect the change to the UET 12 National Training Package in this Guideline and the Skills & Training matrix. Added prerequisite requirements for all HV Switching modules Added reference to the VESI Minimum Rules for Carrying Out HV Live Work for competency assessment timeframes Added note 16 to the Skills and Training matrix in regards to HV Switching authorisation training	STRC