

Victorian Purchasing Guide
for
UET - Transmission, Distribution and Rail Sector
Training Package
Release 1
October 2019

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Victorian Purchasing Guide — Release History

Note: RTOs should refer to the [National Register](#) for the detail of changes made in each Release.

Training Package Release	Date VPG Approved	Comments
UET - Transmission, Distribution and Rail Sector Training Package Release No 1	16 October 2019	This is the first release of this Training Package. This release of UET updates all qualifications and units of competency to the 2012 Standards for Training Packages Supersedes UET12 Transmission, Distribution and Rail Sector Training Package Release 2.1

UET - Transmission, Distribution and Rail Sector Training Package

Release 1

Victorian Purchasing Guide

CONTENTS

INTRODUCTION	2
What is a Victorian Purchasing Guide?	2
Registration	2
Transition	2
QUALIFICATIONS	3
UNITS OF COMPETENCY AND NOMINAL HOURS	4
CONTACTS AND LINKS	14
GLOSSARY	16



INTRODUCTION

What is a Victorian Purchasing Guide?

The Victorian Purchasing Guide provides information for use by Registered Training Organisations (RTOs) in the provision of Victorian government subsidised training.

Specifically the Victorian Purchasing Guide provides the following information related to the delivery of nationally endorsed Training Packages in Victoria:

- The maximum and minimum payable hours available for each qualification.
- Nominal hours for each unit of competency within the Training Package.

Registration

RTOs must be registered by either the Victorian Registration and Qualifications Authority (VRQA) or the Australian Skills Qualification Authority (ASQA) regulatory body to be eligible to issue qualifications and Statements of Attainment under the Australian Qualifications Framework (AQF).

The VRQA is the regulatory authority in Victoria responsible for the registration of Vocational Education and Training (VET) providers who offer courses to domestic students in Victoria only.

ASQA is the regulatory authority responsible for the registration of VET providers who offer training in Victoria, nationally and / or internationally.

Transition

The relationship between new units and any superseded or replaced units from the previous version of

UET - Transmission, Distribution and Rail Sector Training Package Release 1 is provided in the Training Package Companion Volume Implementation Guide, available [here](#).

Information regarding transition arrangements can be obtained from the state or national VET Regulatory Authority (see Contacts and Links section).

RTOs must ensure that all training and assessment leading to issuance of qualifications or Statements of Attainment from the **UET - Transmission, Distribution and Rail Sector Training Package Release 1** is conducted against the Training Package units of competency and complies with the assessment requirements.

QUALIFICATIONS

Code	Title	Minimum Payable Hours	Maximum Payable Hours
UET20319	Certificate II in ESI - Powerline Vegetation Control	380	400
UET20419	Certificate II in Transmission Structure and Line Assembly	380	398
UET20519	Certificate II in National Broadband Network Cabling (Electricity Supply Industry Assets)	340	360
UET20619	Certificate II in ESI - Asset Inspection	340	360
UET30519	Certificate III in ESI - Power Systems - Transmission Overhead	1170	1230
UET30619	Certificate III in ESI - Power Systems - Distribution Overhead	1130	1190
UET30719	Certificate III in ESI - Power Systems - Rail Traction	1150	1210
UET30819	Certificate III in ESI - Power Systems - Distribution Cable Jointing	1170	1230
UET30919	Certificate III in ESI - Remote Community Utilities Worker	1150	1210
UET40419	Certificate IV in ESI - Network Systems	1435	1510
UET40519	Certificate IV in ESI - Power Systems Substations	1265	1330
UET40619	Certificate IV in ESI - Power Systems Network Infrastructure	1330	1400
UET50219	Diploma of ESI - Power Systems	1500	1580
UET50319	Diploma of ESI - Power Systems Operations	1580	1660
UET60219	Advanced Diploma of ESI - Power Systems	1980	2080
UET60319	Advanced Diploma of ESI - Power Systems Operations	1910	2010

UNITS OF COMPETENCY AND NOMINAL HOURS

Unit Code	Unit Title	Nominal Hours
UETTDRCJ21	Lay ESI electrical cables	20
UETTDRCJ22	Install and maintain de-energised low voltage underground paper insulated cables.	60
UETTDRCJ23	Install and maintain de-energised high voltage underground paper insulated cables.	60
UETTDRCJ24	Joint and maintain energised low voltage underground paper insulated cables	60
UETTDRCJ25	Perform straight through high voltage paper insulated to polymeric transition joint	60
UETTDRCJ26	Install and maintain de-energised low voltage underground polymeric cables.	60
UETTDRCJ27	Install and maintain de-energised high voltage underground polymeric cables.	60
UETTDRCJ28	Joint and maintain energised low voltage underground polymeric cables	60
UETTDRCJ29	Install gas and oil filled specialised underground cables	60
UETTDRCJ30	Maintain gas and oil filled specialised underground cables	60
UETTDRCJ31	Install and maintain polymeric specialised underground cables	65
UETTDRCJ32	Install and maintain gas and oil pressure systems for specialised underground cables	65
UETTDRCJ33	Install and maintain network infrastructure LV underground cables	40
UETTDRCJ34	Install and maintain network infrastructure HV underground cables	50
UETTDRCJ99	Test and verify distribution cable jointing installations	40
UETTD RDP11	Inspect overhead poles/structures and electrical apparatus	60
UETTD RDP12	Maintain overhead energised low voltage conductors and cables	60
UETTD RDP13	Maintain energised HV distribution overhead electrical apparatus (stick)	70
UETTD RDP14	Maintain energised HV distribution overhead electrical apparatus (glove)	70
UETTD RDP15	Inspect, maintain and restore energised low voltage overhead distribution network infrastructure	50

Unit Code	Unit Title	Nominal Hours
UETTDRDP99	Test and verify distribution overhead installations	40
UETTDRDS31	Draft and layout an power system overhead distribution extension	60
UETTDRDS32	Draft and layout an power system underground distribution extension	60
UETTDRDS33	Draft and layout a power system street lighting system	60
UETTDRDS34	Draft and layout a power system distribution substation minor upgrade	60
UETTDRDS35	Design overhead distribution power systems	90
UETTDRDS36	Design underground distribution power systems	90
UETTDRDS37	Design power system distribution substations	90
UETTDRDS38	Design power system public lighting systems	90
UETTDRDS39	Prepare and manage detailed construction plans for electrical power system infrastructure	90
UETTDRDS40	Prepare and appraise power systems financial impact statements	130
UETTDRDS41	Manage electrical power systems infrastructure projects	130
UETTDRDS42	Investigate quality of power systems supply issues	90
UETTDRDS43	Develop high voltage and low voltage distribution protection systems	100
UETTDRDS44	Design power system zone substations modifications	105
UETTDRDS45	Organise and implement ESI line and easement surveys	90
UETTDRDS46	Develop planned power systems outage strategies	90
UETTDRDS47	Review power system asset management strategies	120
UETTDRDS48	Analyse and appraise power system fault and outage data	120
UETTDRDS49	Establish and manage power system geographical information systems data	90
UETTDRDS50	Design customer power system substations	100
UETTDRDS51	Manage power system transmission and sub-transmission design process	120
UETTDRDS52	Design power system transmission, sub-transmission and zone substation buildings	130
UETTDRDS53	Design power system transmission and sub-transmission substation primary plant	140

Unit Code	Unit Title	Nominal Hours
UETTD RDS54	Design power system transmission and sub-transmission protection and control	140
UETTD RDS55	Design power system transmission and sub-transmission substation earthing	130
UETTD RDS56	Design power system transmission, sub-transmission and zone substation – civil and structural components	130
UETTD RDS57	Design power system overhead transmission systems	130
UETTD RDS58	Design underground transmission systems	130
UETTD REL11	Apply sustainable energy and environmental procedures	40
UETTD REL12	Operate plant and equipment near live electrical conductors and apparatus	40
UETTD REL13	Comply with sustainability, environmental and incidental response policies and procedures	40
UETTD REL14	Working safely near live electrical apparatus as a non-electrical worker	40
UETTD REL15	Respond to power systems technical enquiries and requests	60
UETTD REL16	Working safely near live electrical apparatus	20
UETTD REL17	Operate asset inspection machinery and equipment near live electrical apparatus	40
UETTD REL18	Inspect and treat poles and inspect electrical apparatus	40
UETTD REL19	Identify and interpret characteristics of electrical apparatus associated with power industry assets	40
UETTD REL20	Undertake minor vegetation control and routine minor maintenance of poles and electrical apparatus	40
UETTD REL21	Operate specialised data information equipment near live electrical apparatus	40
UETTD RIS32	Solve electrical problems in remote community network apparatus	80
UETTD RIS33	Solve electrical problems in remote community network systems	80
UETTD RIS34	Install and replace energy meters and associated equipment in remote communities	50
UETTD RIS35	Perform remote community network field switching to a given schedule	40
UETTD RIS36	Install and maintain low voltage services in remote communities (overhead)	40

Unit Code	Unit Title	Nominal Hours
UETTDRIS37	Install and maintain low voltage services in remote communities (underground)	40
UETTDRIS38	Install and maintain public lighting systems in remote communities	40
UETTDRIS41	Install network infrastructure electrical equipment	60
UETTDRIS42	Maintain network infrastructure electrical equipment	60
UETTDRIS43	Perform low voltage field switching operation to a given schedule.	40
UETTDRIS44	Perform HV field switching operation to a given schedule	40
UETTDRIS46	Install and maintain ESI network infrastructure electrical equipment	40
UETTDRIS47	Sample, filter, test and reinstate insulating oil	20
UETTDRIS48	Develop high voltage switching schedule	60
UETTDRIS49	Develop low voltage switching schedule	60
UETTDRIS50	Coordinate power system permit procedures	60
UETTDRIS51	Coordinate and direct power system switching schedules	60
UETTDRIS52	Install and maintain poles, structures and associated hardware	60
UETTDRIS53	Install and maintain power system public lighting	40
UETTDRIS54	Install and maintain poles, structures, overhead conductors and cables	60
UETTDRIS55	Install and maintain low voltage underground services	40
UETTDRIS56	Install and maintain low voltage overhead services	40
UETTDRIS57	Conduct visual checking and treatment of power system poles and structures	25
UETTDRIS58	Locate faults in power system underground power cables	65
UETTDRIS59	Conduct high potential testing of power system underground power cables	60
UETTDRIS60	Install and replace power system energy meters and associated equipment	60
UETTDRIS61	Install mobile Generation set for synchronised LV Genset	60
UETTDRIS62	Implement and monitor the power system organisational OHS policies, procedures and programs	60
UETTDRIS63	Implement and monitor the power system environmental and sustainable energy management policies and procedures	60

Unit Code	Unit Title	Nominal Hours
UETTDRIS64	Install mobile Generation set for synchronised HV Genset	40
UETTDRIS65	Contribute to coordinated HV live working	50
UETTDRIS66	Manage an electricity power system OHS management system	100
UETTDRIS67	Solve problems in energy supply network equipment	80
UETTDRIS68	Solve problems in energy supply network protection equipment and systems	40
UETTDRIS69	Diagnose and rectify faults in energy supply apparatus	60
UETTDRIS70	Diagnose and rectify faults in electrical energy distribution systems	60
UETTDRIS71	Diagnose and rectify faults in electrical energy supply transmission systems	60
UETTDRIS72	Diagnose and rectify faults in distributed Generation systems	60
UETTDRIS73	Develop engineering solutions for energy supply power transformer problems	60
UETTDRIS74	Develop engineering solutions for energy supply system protection problems	60
UETTDRIS81	Install and maintain telecommunications infrastructure on electricity supply industry assets	80
UETTDRIS99	Test and verify distribution remote area installations	40
UETTDRLF01	Apply ESI safety rules, codes of practice and procedures for work on or near electrical apparatus	0
UETTDRLF02	Perform pole top rescue	0
UETTDRLF03	Perform EWP rescue	0
UETTDRLF04	Perform tower rescue	0
UETTDRLF05	Perform rescue from switchyard structures at heights	0
UETTDRLF06	Perform rescue from a live LV panel	0
UETTDRLF07	Perform cable pit/trench/excavation rescue	0
UETTDRLF08	Perform EWP controlled descent escape	0
UETTDRLF09	Apply access procedures to work on or near electrical network infrastructure	0
UETTDRLF10	Provide first aid in an ESI environment	0
UETTDRLF11	Testing of connections to low voltage electricity networks	0

Unit Code	Unit Title	Nominal Hours
UETTDRT21	Install traction overhead wiring systems	60
UETTDRT22	Maintain traction overhead wiring systems	60
UETTDRT23	Install rail traction bonds	40
UETTDRT24	Maintain rail traction bonds	60
UETTDRT25	Install overhead rail traction configurations	60
UETTDRT26	Maintain overhead rail traction configurations	60
UETTDRT27	Install overhead traction components and equipment	60
UETTDRT28	Maintain overhead traction components and equipment	60
UETTDRT29	Operate rail road traction height access equipment.	25
UETTDRT30	Perform to a given schedule rail traction switching operations	40
UETTDRT31	Maintain energised d.c. traction overhead wiring system	60
UETTDRT32	Maintain energised traction overhead electrical apparatus using stick techniques	70
UETTDRT33	Maintain energised traction overhead electrical apparatus using glove techniques	70
UETTDRT34	Install and maintain traction network wiring systems	40
UETTDRT35	Install and maintain traction network equipment and components	40
UETTDRT36	Maintain traction network wiring systems	40
UETTDRT37	Maintain traction network components and equipment	40
UETTDRT99	Test and verify rail traction installations	40
UETTDRSB21	Diagnose and rectify faults in substation environment	20
UETTDRSB22	Carry out power systems substation inspection	20
UETTDRSB23	Install and maintain substation direct current systems	20
UETTDRSB24	Maintain high voltage power system circuit breakers	20
UETTDRSB25	Maintain high voltage power and instrument transformers	20
UETTDRSB26	Install high current DC equipment and switchgear	30
UETTDRSB27	Maintain high current DC equipment and switchgear	30
UETTDRSB29	Maintain capacitor bank equipment for voltage regulation	30

Unit Code	Unit Title	Nominal Hours
UETTDRSB30	Maintain high voltage power system static VAR compensators (SVC)	30
UETTDRSB31	Maintain high voltage power system synchronous condensers	30
UETTDRSB32	Maintain power transformer on load tap changers (OLTC)	30
UETTDRSB33	Install high voltage plant and equipment	30
UETTDRSB34	Carry out surveys using thermovision techniques	20
UETTDRSB35	Maintain discrete control and protection systems	30
UETTDRSB36	Commission discrete control and protection systems	30
UETTDRSB37	Maintain power system distribution field devices	30
UETTDRSB38	Commission power system distribution field devices	30
UETTDRSB39	Perform power system substation switching operation to a given schedule	40
UETTDRSO32	Manage power systems network faults	140
UETTDRSO33	Manage power systems critical events	140
UETTDRSO34	Control power systems generating plant	120
UETTDRSO35	Manage high voltage distribution and subtransmission network demand	140
UETTDRSO36	Develop low voltage distribution switching programs	100
UETTDRSO37	Develop high voltage distribution and subtransmission switching programs	100
UETTDRSO38	Develop and evaluate power systems transmission switching programs	100
UETTDRSO39	Coordinate low voltage distribution networks	100
UETTDRSO40	Coordinate high voltage distribution and subtransmission networks	100
UETTDRSO41	Manage power systems transmission networks	130
UETTDRSO42	Manage power systems transmission network demand	130
UETTDRSO43	Coordinate low voltage distribution network demand	100
UETTDRSO44	Develop crisis power systems management plans	100
UETTDRSO45	Operate and monitor system SCADA equipment	100
UETTDRSO46	Monitor and control the field staff activities	100

Unit Code	Unit Title	Nominal Hours
UETTDRSO47	Coordinate high voltage transmission network	100
UETTDRSO48	Respond to discrete and interdependent protection operations	100
UETTDRSO49	Coordinate power system operations in a regulated energy market	100
UETTDRSO50	Respond to complex power system protection operations	140
UETTDRSO51	Manage network systems power flows	140
UETTDRTTP22	Establish and reinstate a power systems transmission structure work site	90
UETTDRTTP23	Erect power systems transmission structures	100
UETTDRTTP24	Erect power systems transmission structure hardware	80
UETTDRTTP25	Pre-tension stringing overhead transmission conductors and cables	90
UETTDRTTP26	Install transmission structures and associated hardware	60
UETTDRTTP27	Maintain transmission structures and associated hardware	60
UETTDRTTP28	Set-up and install transmission structure stubs	50
UETTDRTTP29	Install and maintain transmission overhead conductors and cables	60
UETTDRTTP30	Inspect transmission overhead structures and electrical apparatus	60
UETTDRTTP31	Maintain energised transmission lines using live line stick technique	70
UETTDRTTP32	Maintain energised transmission lines using Barehand Technique	70
UETTDRTTP33	Maintain energised transmission lines using Barehand Technique on a helicopter platform	60
UETTDRTTP34	Install/maintain overhead transmission network infrastructure	40
UETTDRTTP35	Install/maintain transmission network infrastructure electrical equipment	40
UETTDRTTP99	Test and verify transmission overhead installations	40
UETTDRTS21	Maintain interdependent network protection and control systems	100
UETTDRTS22	Commission interdependent network protection and control systems	100
UETTDRTS23	Conduct evaluation of power system substation faults	120
UETTDRTS24	Design testing and commissioning procedures for field devices and substations	120
UETTDRTS25	Maintain and test and metering schemes	90
UETTDRTS26	Commission power systems metering schemes	100

Unit Code	Unit Title	Nominal Hours
UETTDRTS27	Perform accuracy checks on power systems instrument transformers	100
UETTDRTS28	Repair, test and calibrate protection relays and meters	100
UETTDRTS29	Develop power systems secondary isolation instructional documents	100
UETTDRTS30	Design power systems secondary isolation instructional documents	130
UETTDRTS31	Maintain, test and commission power systems voltage regulating equipment	80
UETTDRTS32	Conduct evaluation of power systems primary plant	130
UETTDRTS33	Undertake power systems project management of substation augmentation and maintenance	140
UETTDRTS34	Install and maintain power system communication equipment	100
UETTDRTS35	Maintain complex network protection and control systems	140
UETTDRTS36	Commission complex network protection and control systems	140
UETTDRTS37	Perform current injection testing using phantom load	40
UETTDRTS38	Install and replace high voltage metering and associated equipment	40
UETTDRTS39	Maintain compliance with national electricity market metrology practices and procedures	30
UETTDRTS40	Test and maintain energy revenue metering schemes	30
UETTDRTS41	Install and replace complex energy revenue metering schemes and associated equipment	30
UETTDRTS42	Install and replace complex energy revenue metering schemes and associated equipment	30
UETTDRTS43	Commission energy revenue metering schemes	30
UETTDRTS44	Test and maintain energy revenue metering schemes (complex)	40
UETTDRTS45	Manage compliance with national electricity market metrology practices and procedures	40
UETTDRTS46	Verification and certification of revenue metering energy measurement instruments	40
UETTDRTS47	Commission energy revenue metering schemes (complex)	40
UETTDRVC21	Use climbing techniques to cut vegetation above ground near live electrical apparatus	50
UETTDRVC23	Plan the removal of vegetation up to vegetation exclusion zone near live electrical apparatus	50

Unit Code	Unit Title	Nominal Hours
UETTDRVC24	Assess vegetation and recommend control measures in an ESI environment	50
UETTDRVC25	Use elevated platform to cut vegetation above ground level near live electrical apparatus	45
UETTDRVC26	Cut vegetation at ground level near live electrical apparatus	45
UETTDRVC27	Monitor safety compliance of vegetation control work in an ESI environment	50
UETTDRVC29	Control vegetation whilst performing linework	40
UETTDRVC30	Coordinate vegetation control operations	60
UETTDRVC31	Operate specialist equipment at ground level near live electrical apparatus	60
UETTDRVC32	Use specialised plant to cut vegetation above ground level near live electrical apparatus	30
UETTDRVC33	Apply pruning techniques to vegetation control near live electrical apparatus	50
UETTDRVC34	Undertake release and rescue from a tree near live electrical apparatus	20

CONTACTS AND LINKS

Curriculum Maintenance Manager (CMM)		
CMM Service Name	The CMM Service is provided on behalf of Higher Education and Skills. CMM Service Executive Officers can assist with questions on payable and nominal hours.	George Adda Box Hill Institute of TAFE, Private Bag 2014, Box Hill, Victoria, 3128 Phone: (03) 9286 9880 Fax: (03) 9286 9800 Email: g.adda@bhtafe.edu.au
Service Skills Organisation (SSO)		
SSO Name	This SSO is responsible for developing this UET - Transmission, Distribution and Rail Sector Training Package and can be contacted for further information.	Phone: (03) 9604 7200 Email: https://www.australianindustrystandards.org.au/contact-us/ SSO website can be found here .
National Register for VET in Australia		
Training.gov.au (TGA)	TGA is the Australian government's official National Register of information on Training Packages, qualifications, courses, units of competency and RTOs.	National Register website can be found here .
Australian Government		
Department of Employment, Skills, Small and Family Business	The Commonwealth Department is responsible for national policies and programmes that help Australians access quality vocational education and training.	The Commonwealth Department of Employment, Skills, Small and Family Business website can be found here
State Government		
Department of Education and Training (DET)	DET is the State Training Authority responsible for supporting implementation of Vocational Education and Training (VET) in Victoria.	(03) 9637 2000 The Victorian Department of Education and Training website can be found here
National VET Regulatory Authority		
Australian Skills Quality Authority (ASQA)	ASQA is the national regulator for Australia's VET sector.	Info line: 1300 701 801 ASQA's website can be found here
Victorian VET Regulatory Authority		
Victorian Registration and Qualifications Authority (VRQA)	The VRQA is a statutory authority responsible for the registration and regulation of Victorian RTOs and for the regulation of apprenticeships and traineeships in Victoria.	(03) 9637 2806 VRQA's website can be found here

Industry Regulatory Bodies		
Energy Safe Victoria	The industry Regulatory body can provide advice on licensing, legislative or regulatory requirements which may impact on the delivery of training or the issuance of qualifications in this Training Package.	Level 5 4 Riverside Quay Southbank, VIC, 3006 Postal Address: PO BOX 262 Collins Street West Melbourne, Vic 8007 Phone: (03) 9203 9700 Email: info@energysafe.vic.gov.au Web: http://www.esv.vic.gov.au/
WorkSafe		
WorkSafe Victoria	WorkSafe needs to provide written verification before High Risk Work Units can be added to an RTO's scope of registration.	www.worksafe.vic.gov.au Info line: 1800 136 089 WorkSafe Victoria's website can be found here

GLOSSARY

Code	Nationally endorsed Training Package qualification code.
Title	Nationally endorsed Training Package qualification title.
Unit Code	Nationally endorsed Training Package unit code.
Unit Title	Nationally endorsed Training Package unit title.
Maximum Payable Hours	<p>The maximum number of hours the Victorian Government will subsidise under Skills First funding for the achievement of the minimum realistic vocational outcome of the qualification, as determined by the qualification packaging rules. The Maximum Payable Hours do not cover every possible combination of core and elective units available for a specific qualification.</p> <p>Minimum payable hours reflect a calculated minimum number of hours that could deliver a minimum realistic vocational outcome, based on efficiencies of contextualisation and integration.</p>
Scope of Registration	Scope of registration specifies the AQF qualifications and/or units of competency the training organisation is registered to issue and the industry training and/or assessment services it is registered to provide.
Nominal Hours	Nominal hours reflect the anticipated time taken to deliver and assess the outcomes of a unit of competency excluding unsupervised delivery or the time taken for repeated practical application of skills. Nominal hours are determined by the Victorian State Training Authority (DET) and are primarily developed for funding purposes in Victoria.