Victorian Purchasing Guide
for
UEP Electricity Supply Industry – Generation Sector Training Package
Release 1

March 2019

Victorian Purchasing Guide - Version History

Training Package Version	Date VPG Released	Comments
UEP Electricity Supply Industry – Generation Sector Training Package Release 1	28 March 2019	This Victorian Purchasing Guide reflects the initial release of the UEP Electricity Supply Industry – Generation Sector Training Package (Release 1.0) • Transition of thirteen qualifications from the UEP12 to the Standards for Training Packages: o UEP20118 Certificate II in ESI Generation - Operations Support o UEP20218 Certificate II in Remote Area Essential Service o UEP30118 Certificate III in ESI Generation - Systems Operations o UEP30218 Certificate III in ESI Generation - Operations o UEP40118 Certificate IV in ESI Generation - Systems Operations o UEP40218 Certificate IV in ESI Generation - Operations o UEP40318 Certificate IV in ESI Generation Maintenance - Electrical Electronics o UEP40418 Certificate IV in ESI Generation Maintenance (Fabrication) o UEP40518 Certificate IV in ESI Generation Maintenance (Mechanical) o UEP40618 Certificate IV in Large Scale Wind Generation - Electrical o UEP50118 Diploma of ESI Generation - Systems Operations o UEP50218 Diploma of ESI Generation - Operations o UEP50318 Diploma of ESI Generation (Maintenance) o UEP50418 Diploma of ESI Generation Maintenance - Electrical Electronic • Inclusion of one new qualification transferred from the UEE11 Electrotechnology Training Package: UEP20218- Certificate II in Remote Area Essential Service

UEP Electricity Supply Industry – Generation Sector Training Package Victorian Purchasing Guide

CONTENTS

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 education and training providers in VET who provide courses to domestic students only and who offer training in Victoria only or Victoria and Western Australia only.

To register to provide training to international students and in other Australian states and territories you will need to apply with ASQA.

QUALIFICATIONS

Code	Title	Minimum Payable Hours	Maximum Payable Hours
UEP20118	Certificate II in ESI Generation - Operations Support	355	374
UEP20218	Certificate II in Remote Area Essential Service	345	360
UEP30118	Certificate III in ESI Generation - Systems Operations	895	940
UEP30218	Certificate III in ESI Generation - Operations	885	930
UEP40118	Certificate IV in ESI Generation - Systems Operations	1200	1260
UEP40218	Certificate IV in ESI Generation - Operations	1200	1260
UEP40318	Certificate IV in ESI Generation Maintenance - Electrical Electronics	1170	1230
UEP40418	Certificate IV in ESI Generation Maintenance (Fabrication)	1215	1280
UEP40518	Certificate IV in ESI Generation Maintenance (Mechanical)	1215	1280
UEP40618	Certificate IV in Large Scale Wind Generation - Electrical	1290	1360
UEP50118	Diploma of ESI Generation - Systems Operations	1595	1680
UEP50218	Diploma of ESI Generation - Operations	1530	1610
UEP50318	Diploma of ESI Generation (Maintenance)	1560	1640
UEP50418	Diploma of ESI Generation Maintenance - Electrical Electronic	1615	1700

UNITS OF COMPETENCY

Unit Code	Unit Title	Nominal Hours
UEPMNT201	Carry out routine work activities in an electricity supply industry generation environment	40
UEPMNT202	Carry out routine work activities in an ESI large scale wind generation environment	40
UEPMNT302	Install and maintain industrial pipe work	40
UEPMNT303	Maintain mechanical valves	40
UEPMNT304	Maintain mechanical pumps	40
UEPMNT305	Maintain industrial fans	40
UEPMNT307	Maintain industrial screens, strainers and filters	20
UEPMNT308	Maintain conveyors and associated equipment	40
UEPMNT309	Maintain material feeders	40
UEPMNT310	Maintain material crushers	40
UEPMNT311	Maintain fuel transport equipment	80
UEPMNT312	Maintain industrial pressure vessels	80
UEPMNT313	Maintain internal combustion engines	100
UEPMNT314	Maintain hydro turbines	100
UEPMNT315	Maintain wind turbines	100
UEPMNT317	Diagnose and repair faults in mechanical equipment	40
UEPMNT318	Conduct generator mechanical maintenance	80
UEPMNT319	Maintain and test fixed fire protection systems	20
UEPMNT320	Inspect and repair faults in mechanical equipment and components	40
UEPMNT339	Perform sheet metal work	60
UEPMNT340	Fabricate metal structures and components	40
UEPMNT345	Install electronic equipment	40
UEPMNT346	Maintain electrical equipment	40
UEPMNT347	Maintain complex electrical equipment	40
UEPMNT348	Maintain electrical electronic equipment	40

Unit Code	Unit Title	Nominal Hours
UEPMNT350	Modify electrical equipment	40
UEPMNT351	Test and commission electrical equipment	40
UEPMNT352	Test and commission electronic electrical equipment	40
UEPMNT355	Install complex electronic instrumentation equipment	40
UEPMNT356	Maintain instrumentation equipment	40
UEPMNT357	Diagnose and repair faults in instrumentation equipment	20
UEPMNT358	Modify instrumentation equipment	20
UEPMNT359	Test and commission instrumentation equipment	20
UEPMNT361	Maintain wind turbine mechanical systems	60
UEPMNT362	Maintain wind turbine control systems	60
UEPMNT366	Maintain power plant inverter systems	60
UEPMNT367	Install and commission stationary gas fuelled reciprocating engines	60
UEPMNT368	Repair and maintain stationary gas fuelled reciprocating engines	60
UEPMNT369	Monitor climatic conditions for renewable electricity generation	40
UEPMNT370	Maintain and monitor wind farm civil assets	40
UEPMNT371	Maintain large scale wind turbine generators	60
UEPMNT401	Install and maintain complex mechanical seals	40
UEPMNT402	Conduct complex levelling and alignment	40
UEPMNT403	Maintain complex mechanical valves	40
UEPMNT404	Maintain complex mechanical pumps	40
UEPMNT406	Install and maintain a steam turbine	100
UEPMNT407	Repair a gas turbine unit	100
UEPMNT408	Install hydro turbines	100
UEPMNT410	Diagnose and repair faults in electronic equipment	40
UEPMNT411	Diagnose and repair faults in complex electrical equipment	40
UEPMNT412	Modify complex electrical equipment	60
UEPMNT413	Modify electronic electrical equipment	40

Unit Code	Unit Title	Nominal Hours
UEPMNT414	Test and commission complex electrical equipment	40
UEPMNT415	Diagnose and repair faults in complex refrigeration and air conditioning equipment	40
UEPMNT416	Overhaul electrical generator	60
UEPMNT417	Inspect electrical generators and diagnose faults	60
UEPMNT419	Perform civil drafting	80
UEPMNT421	Conduct technical inspection of process plant and equipment	60
UEPMNT422	Conduct performance testing on process plant and equipment	60
UEPMNT424	Monitor efficiency of thermal steam cycle power plant	60
UEPMNT425	Maintain complex instrumentation equipment	80
UEPMNT426	Maintain electronic instrumentation equipment	80
UEPMNT427	Diagnose and repair faults in complex instrumentation equipment	80
UEPMNT428	Modify complex instrumentation equipment	80
UEPMNT429	Modify electronic instrumentation equipment	80
UEPMNT430	Test and commission complex instrumentation equipment	80
UEPMNT431	Test and commission electronic instrumentation equipment	80
UEPMNT432	Write programs for control systems	80
UEPMNT433	Conduct routine generator electrical maintenance	80
UEPMNT434	Diagnose and repair faults in wind turbine control systems	80
UEPMNT435	Diagnose and repair faults in wind turbine mechanical systems	80
UEPMNT436	Test and commission wind turbine control systems	80
UEPMNT440	Diagnose and repair faults in power plant inverter systems	80
UEPMNT441	Test and commission power plant inverter systems	80
UEPMNT442	Maintain wind turbine generator electrical systems	60
UEPMNT443	Maintain wind turbine generator control systems	60
UEPMNT444	Maintain wind turbine generator mechanical systems	60
UEPMNT445	Diagnose and repair faults in large scale wind turbine generators	60
UEPMNT446	Coordinate maintenance on a wind farm	60

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Unit Code	Unit Title	Nominal Hours
UEPMNT447	Diagnose and repair faults in wind turbine generator electrical systems	60
UEPMNT448	Diagnose and repair faults in wind turbine generator control systems	60
UEPMNT449	Diagnose and repair mechanical systems faults in wind turbine generators	60
UEPMNT450	Test and commission wind turbine generators	60
UEPMNT501	Diagnose and repair faults in electrical and electronic systems	100
UEPMNT502	Test and commission electronic electrical systems	100
UEPMNT503	Diagnose and repair faults in instrumentation systems	100
UEPMNT504	Test and commission instrumentation systems	100
UEPOPL001	Licence to operate a steam turbine	60
UEPOPL002	Licence to operate a reciprocating steam engine	60
UEPOPS202	Apply quality systems to work	20
UEPOPS203	Operate and monitor communications system	20
UEPOPS204	Maintain and utilise records	20
UEPOPS205	Conduct minor mechanical maintenance	20
UEPOPS206	Conduct minor electrical maintenance	20
UEPOPS207	Perform plant lubrication	20
UEPOPS209	Perform process plant inspections	20
UEPOPS210	Conduct first response within a workplace team	20
UEPOPS211	Clean plant and equipment	20
UEPOPS232	Transport plant and equipment	40
UEPOPS237	Perform tool store duties	20
UEPOPS238	Maintain battery banks and cells	20
UEPOPS240	Operate and monitor fuel supply (coal)	40
UEPOPS241	Operate and monitor ash and dust disposal plant	20
UEPOPS242	Operate and monitor dust collection plant	20
UEPOPS243	Operate air conditioning plant	20
UEPOPS244	Operate and monitor site services water systems	20

Unit Code	Unit Title	Nominal Hours
UEPOPS245	Conduct chemical batching operations	20
UEPOPS246	Operate waste and contaminated water plant	20
UEPOPS247	Operate and monitor an internal combustion single fuel reciprocating engine	20
UEPOPS248	Operate and monitor an internal combustion dual fuel reciprocating engine	20
UEPOPS249	Liaise with stakeholders	20
UEPOPS251	Conduct routine wind turbine maintenance	40
UEPOPS252	Undertake local systems operations	30
UEPOPS301	Conduct single energy source isolation procedures for permit to work	40
UEPOPS309	Operate and monitor air conditioning plant and ventilation systems	20
UEPOPS310	Operate bulk coal handling plant	40
UEPOPS311	Operate fabric filter dust collection plant	20
UEPOPS312	Operate and monitor fuel supply	20
UEPOPS313	Operate and monitor boiler draught system	20
UEPOPS314	Operate and monitor fuel firing plant (gas or oil)	20
UEPOPS315	Operate and monitor fuel firing plant (coal)	40
UEPOPS316	Operate and monitor boiler steam/water cycle	40
UEPOPS317	Operate and monitor fixed fire protection systems	20
UEPOPS318	Operate and monitor compressed gas systems	20
UEPOPS319	Operate and monitor gas production plant	20
UEPOPS320	Operate and monitor compressed air systems	20
UEPOPS321	Operate and monitor water treatment plant	40
UEPOPS322	Operate and monitor alkalinity reduction plant	20
UEPOPS323	Operate and monitor reverse osmosis plant	20
UEPOPS324	Operate and monitor brine concentrator plant	20
UEPOPS325	Operate and monitor water quality monitoring systems	40
UEPOPS326	Operate and monitor oil systems	40
UEPOPS327	Monitor and maintain civil assets	30

Unit Code	Unit Title	Nominal Hours
UEPOPS328	Undertake dam safety surveillance	30
UEPOPS329	Operate and monitor auxiliary steam systems	30
UEPOPS330	Operate and monitor heat exchangers and cooling systems	30
UEPOPS331	Operate and monitor water systems (condensate and feedwater)	40
UEPOPS332	Operate and monitor condenser and auxiliary cooling systems	30
UEPOPS333	Operate and monitor HRSG hot gas control system	40
UEPOPS334	Operate and monitor a wind generator	40
UEPOPS335	Operate a hydro generator synchronous condenser pump unit	40
UEPOPS336	Manage, operate and monitor a gas turbine unit	30
UEPOPS337	Maintain quality systems within the team	20
UEPOPS338	Facilitate workplace communication	20
UEPOPS339	Operate and monitor a boiler unit	30
UEPOPS340	Operate and monitor a steam turbine	30
UEPOPS342	Analyse single protection device operation	30
UEPOPS343	Operate hydroelectric generating plant and auxiliary equipment	30
UEPOPS344	Conduct water conveyance and control	30
UEPOPS345	Implement dam safety surveillance procedures	30
UEPOPS346	Conduct non-routine operational testing	20
UEPOPS347	Operate and monitor supervisory, control and data acquisition systems	30
UEPOPS349	Operate local H.V. switchgear	40
UEPOPS351	Operate H.V. condition changing apparatus	20
UEPOPS352	Conduct operational checks on in-service mechanical plant	20
UEPOPS354	Operate and monitor dual fuel firing plant	40
UEPOPS355	Monitor the implementation of under frequency load shedding	30
UEPOPS356	Apply environmental and sustainable energy procedures	20
UEPOPS357	Operate local L.V. switchgear	20
UEPOPS358	Monitor and maintain wind farm civil assets	40

Unit Code	Unit Title	Nominal Hours
UEPOPS359	Monitor climatic conditions for renewable energy production	40
UEPOPS360	Operate and monitor a hydro turbine	30
UEPOPS361	Operate and monitor hydro plant auxiliary systems	30
UEPOPS362	Operate and monitor generator/alternator	30
UEPOPS364	Ensure compliance with Work, Health and Safety policy and procedures	20
UEPOPS368	Operate manual systems	30
UEPOPS369	Respond to a critical incident	40
UEPOPS370	Facilitate the use of contingency plans for power generation facilities	40
UEPOPS371	Carry out operational checks on in-service electrical plant	20
UEPOPS372	Operate and monitor generator/alternator auxiliary plant	40
UEPOPS402	Conduct multiple energy source isolation procedures for permit to work	40
UEPOPS403	Coordinate permit to work system	40
UEPOPS404	Coordinate first response team operation	20
UEPOPS405	Operate and monitor A.C. electrical systems	30
UEPOPS406	Operate and monitor D.C. electrical systems	30
UEPOPS407	Start and run up gas turbine	20
UEPOPS408	Shut down a gas turbine	20
UEPOPS409	Start up a boiler unit	40
UEPOPS410	Shut down a boiler unit	20
UEPOPS411	Run up a steam turbine	40
UEPOPS412	Undertake commissioning and decommissioning	40
UEPOPS413	Coordinate operational strategies for power production	40
UEPOPS414	Perform risk analysis of generation plant	30
UEPOPS416	Monitor implementation of quality control for production and maintenance	40
UEPOPS417	Monitor and implement environmental site plans and procedures	40
UEPOPS419	Shut down a steam turbine	30
UEPOPS420	Coordinate network/system	60

Unit Code	Unit Title	Nominal Hours
UEPOPS422	Schedule generation	20
UEPOPS423	Plan a scheduled outage	40
UEPOPS424	Coordinate local H.V. networks	30
UEPOPS425	Produce maintenance plans for generation production plant	40
UEPOPS426	Interpret and analyse multi-operation protection devices	40
UEPOPS428	Develop H.V. switching programs	20
UEPOPS430	Control permit to work operations	20
UEPOPS431	Collect and analyse hydrological and meteorological data	40
UEPOPS432	Start up a heat recovery steam generator unit	40
UEPOPS433	Operate and monitor a heat recovery steam generator unit	40
UEPOPS434	Shut down a heat recovery steam generator unit	20
UEPOPS435	Operate and monitor flue gas (NOx) mitigation systems	40
UEPOPS437	Manage system restart	40
UEPOPS439	Plan and organise work	20
UEPOPS440	Coordinate team activities	20
UEPOPS441	Operate and monitor system equipment	30
UEPOPS442	Monitor and coordinate the operation of a combined cycle gas turbine unit	60
UEPOPS443	Coordinate wind farm operations	60
UEPOPS444	Start and run-up a hydro turbine	40
UEPOPS445	Shut down a hydro turbine	30
UEPOPS446	Operate and monitor hydro unit control and protection systems	60
UEPOPS447	Coordinate photovoltaic solar power plant operations	60
UEPOPS450	Coordinate workplace communication	40
UEPOPS451	Coordinate the use of contingency plans	40
UEPOPS452	Conduct operational checks and carry out corrective action on in-service electrical plant	40
UEPOPS453	Monitor Work, Health and Safety policy and procedures compliance	20
UEPOPS454	Coordinate response to critical incidents	30

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Unit Code	Unit Title	Nominal Hours
UEPOPS456	Perform switching to a switching program	30
UEPOPS457	Control electrical energy production	40
UEPOPS501	Manage Work, Health and Safety policy and procedures	40
UEPOPS502	Manage permit to work system	40
UEPOPS505	Produce maintenance strategies for generation production plant	40
UEPOPS507	Conduct project management	80
UEPOPS508	Manage commissioning and decommissioning	80
UEPOPS509	Manage quality control procedures	60
UEPOPS510	Monitor power generation plant reliability	80
UEPOPS511	Tune process plant and equipment	60
UEPOPS512	Manage high voltage network system	80
UEPOPS513	Manage operational crisis to maintain or restore power system integrity	60
UEPOPS514	Control hydro generation pumping	60
UEPOPS515	Coordinate power generation	40
UEPOPS520	Evaluate cost estimations and initiate appropriate solutions	40
UEPOPS523	Manage critical incidents	60
UEPOPS524	Evaluate scheduling of generation plant	60
UEPOPS525	Coordinate and direct switching program	60
UEPOPS526	Coordinate electrical energy production	60
UEPOPS527	Manage first response team	40
UEPOPS528	Manage environmental management systems	40
UEPOPS529	Manage operational strategies for power production	80

CONTACTS AND LINKS

Curriculum Maintenance Manager (CMM)		
Engineering Industries	The CMM Service is provided by Executive Officers, across all industry areas covered by Training Packages. They 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
Skills Service Organisation (SSO)		
Australian Industry Standards (AIS)	This SSO is responsible for developing this **UEP Electricity Supply Industry – Generation Sector Training Package,** companion volumes and support material and can be contacted for further information.	Jason Lazar Industry Manager Australian Industry Standards AIS's 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, Accredited Courses, qualifications, units of competency and RTOs.	National Register website can be found here
Australian Government		
Department of Education and Training	The Commonwealth Department is responsible for national policies and programmes that help Australians access quality vocational education and training.	The Commonwealth Department of Education and Training website can be found here
Victorian State Government		
Department of Education and Training (DET)	DET is responsible for funding and the implementation of Vocational Education and Training (VET) in Victoria, including Apprenticeships and Traineeships policy.	(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 State 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 applicable to this Training Package		
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.	**Postal Address:** PO BOX 262 Collins Street West Melbourne, Vic 8007 **Business Address** Level 5 Building 2 4 Riverside Quay Southbank, VIC, 3006 Phone: (03) 9203 9700 Fax: (03) 9686 2197 ESV'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 of competency code.
Unit Title	Nationally endorsed Training Package unit of competency title.
Payable Hours	The maximum number of hours the Victorian Government will subsidise under the Victorian Training Guarantee for the achievement of the minimum realistic vocational outcome of any 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.
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.