Australian Government

UETTDRSB33 Install high voltage plant and equipment

Release: 1

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Modification History

Release 1. This is the first release of this unit of competency in the UET Transmission, Distribution and Rail Sector Training Package.

Application

This unit involves the skills and knowledge required to install high voltage (HV) plant and equipment in the electricity supply industry (ESI).

It includes conducting pre-commissioning tests within agreed specifications, installing earthing systems, tertiary cabling and/or busbar systems. It does not include associated protection systems.

The application of the skills and knowledge described in this unit may require a licence/registration to practice in the workplace.

Other conditions may apply under state and territory legislative and regulatory licensing requirements which must be confirmed prior to commencing this unit.

Pre-requisite Unit

Common Unit Group

UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace

UEENEEE102A Fabricate, assemble and dismantle utilities industry components

UEENEEE104A Solve problems in d.c. circuits

UEENEEE105A Fix and secure electrotechnology equipment

UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications

UEENEEE137A Document and apply measures to control OHS risks associated with electrotechnology work

UEENEEG006A Solve problems in single and three phase low voltage machines

UEENEEG033A Solve problems in single and three phase low voltage electrical apparatus and circuits

UEENEEG063A Arrange circuits, control and protection for general electrical installations

UEENEEG101A Solve problems in electromagnetic devices and related circuits

UEENEEG102A Solve problems in low voltage a.c. circuits

UEENEEG103A Install low voltage wiring and accessories

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UEENEEG106A Terminate cables, cords and accessories for low voltage circuits

UEENEEG107A Select wiring systems and cables for low voltage general electrical installations

UEENEEG108A Trouble-shoot and repair faults in low voltage electrical apparatus and circuits

UEENEEG109A Develop and connect electrical control circuits

UEENEEK142A Apply environmentally and sustainable procedures in the energy sector

Competency Field

Substation

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1 Plan the installation of HV plant and equipment	**1.1** Work schedules, construction plans, drawings, workplace procedures and material lists are obtained and analysed
	1.2 Job requirements and workplace procedures are identified and communicated with relevant personnel
	1.3 Hazards are identified, work health and safety (WHS)/occupational health and safety (OHS)risks assessed and control measures prioritised, implemented and monitored in accordance with workplace procedures
	1.4 Work is prioritised and sequenced for completion within acceptable timeframes following consultation with relevant personnel and in accordance with workplace procedures
	1.5 Risk control measures are identified, prioritised, implemented and evaluated against the work schedule
	1.6 Equipment, tools and personal protective equipment (PPE) required for work are identified, obtained and confirmed in working order

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	1.7	Liaison and communication issues with authorised personnel, authorities, clients and land owners are resolved to facilitate work, as required
	1.8	Personnel participating in work are fully briefed and responsibilities confirmed in accordance with workplace procedures
	1.9	Worksite is prepared to minimise risk, damage to property, commerce and individuals in accordance with workplace procedures
2 Carry out the installation of HV plant and equipment	**2.1**	WHS/OHS, sustainable energy and environmental principles and practices are monitored and actioned to reduce incidents of accidents in accordance with workplace procedures
	2.2	Cardiopulmonary resuscitation (CPR), rescue from live electrical apparatus and other related safety procedures are in place in accordance with job requirements and/or workplace procedures
	2.3	Safe working documentation is acquired and requirements completed in accordance with workplace procedures
	2.4	Requirements for lifting, climbing, working at heights, confined spaces and use of power tools/equipment are followed in accordance with workplace procedures
	2.5	Hazard warnings and safety signs are recognised and hazards and assessed WHS/OHS risks are reported to immediate authorised personnel for directions in accordance with workplace procedures
	2.6	Earthing requirements are identified and installed or confirmed installed in accordance with workplace procedures
	2.7	Foundations and other appropriate civil works are constructed and/or confirmed ready for the erection of HV plant and equipment
	2.8	HV plant and equipment is erected and associated HV connections, low voltage (LV) controls and supplies are installed in accordance with manufacturer instructions and workplace procedures
	2.9	Remedial actions are taken to overcome shortfalls

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		encountered in the work schedule in accordance with job requirements and workplace procedures
	2.10	Pre-commissioning checks are performed and HV plant and equipment made ready for service in accordance with workplace procedures
	2.11	Completed work is checked against work schedule, construction plans and drawings for compliance and anomalies are reported in accordance with workplace procedures
	2.12	Essential knowledge and associated skills are applied for the safe installation of HV plant and equipment to ensure completion in agreed timeframes, to quality standards and minimum waste in accordance with workplace procedures
	2.13	Unplanned events or conditions are responded to in accordance with workplace procedures
3 Complete the installation of HV plant and equipment	**3.1**	Completed work is checked against work schedule, construction plans and drawings for compliance and anomalies are reported in accordance with workplace procedures
	3.2	Safe working documentation is surrendered and installed power system HV plant and equipment made ready for service
	3.3	Worksite is rehabilitated, cleaned up and confirmed safe in accordance with workplace procedures
	3.4	Tools, equipment, surplus resources and materials are cleaned, checked and returned to storage in accordance with workplace procedures
	3.5	Work records, reports and/or documentation are completed in accordance with workplace procedures and relevant personnel notified
	3.6	Associated drawings, schematics and diagrams are updated to reflect work as executed in accordance with workplace procedures

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of

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competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UETTDRSB33A Install high voltage plant and equipment.

Links

UET Training Package Companion Volume Implementation Guide is found in VETNet - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=229bace1-b7bc-4653-9300-dffb13ecfad7

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