

Field Engineering and Technology

This report was republished in April 2014 to correct errors in the 'Impact on registered qualifications' table.

Review of *Electricity Supply* unit standards

Subfield	Domain	ID
Electricity Supply	Electricity Supply - Core Skills	10509, 10512, 10545, 17025, 17027, 18027, 18272-18274, 18276, 19950, 23896, 23897
	Electricity Supply - Distribution Networks	10510, 10511, 10513, 10518, 10521, 10522, 10526, 10529, 10544, 10549, 12295, 12298, 17632, 18024, 20423, 23986
	Electricity Supply - Power System Management	16278

The Infrastructure Industry Training Organisation has completed the Review of the unit standards listed above. The unit standard in **bold** has been reinstated and reviewed.

Date new version of report published	April 2014
Date new versions published	March 2014

Planned review date	December 2018
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Summary

The review of these unit standards was initiated through their planned review and the Targeted Review of Qualifications (TRoQ) for Electrotechnology triggered for 2013.

The unit standards were reviewed to ensure that they are fit for purpose, relevant to the Electricity Supply Industry and were readily available for assessment. Industry representatives in the TRoQ Review Group were involved in the review and writing of these unit standards and have provided feedback on the versions that were reviewed.

Main changes

- Unit standards 10510, 10518, 10527, 10549, 12298, 16278, 18024 and 18027 have been replaced.
- The titles of unit standards 10511, 10513, 10544, 10545, 12295, 18273, 23896, have been changed to better reflect the unit outcomes.
- The levels of unit standards 12295, 23896 and 23897 have been increased.
- The credits of unit standards 10545, 17027, 17632, 18274 have been adjusted to reflect learning and assessment.
- Changes were made to outcomes, evidence requirements, ranges and/or explanatory notes in unit standards 17027, 17632, 12295, 23896, 23897 to ensure delivery and assessment consistency. This includes changes to unit standard 12295 to reflect its use for both Cable Jointers and Line Mechanics
- Unit standards 28109, 28110, 28113 and 28194 have been listed to meet the industry and qualification graduate profile outcome requirements.

Category C unit standards will expire on 31 December 2016

Impact on existing organisations with consent to assess

Current consent for			Consent extended to		
Nature of consent	Classification or ID	Level	Nature of consent	Classification or ID	Level
Standard	10510	4	Standard	28112	4
Standard	10549	3	Standard	28112	4
Standard	10518	4	Standard	28192	4
Standard	12295	3	Standard	12295	4
Standard	12298	4	Standard	28113	4
Standard	18024	4	Standard	28113	4
Standard	18027	2	Standard	28193	3
Standard	16278	4	Standard	28195	4

Impact on Consent and Moderation Requirements (CMR)

None.

Impact on registered qualifications

Key to type of impact	
Affected	The qualification lists a reviewed classification (domain or subfield) in an elective set The qualification lists a standard that has changes to level or credits The qualification lists a C or D category standard
Not materially affected	The qualification lists a standard that has a new title The qualification lists a standard that has a new classification

The following Infrastructure Industry Training Organisation qualifications are impacted by the outcome of this Review and will be updated when they are revised during 2014-2015. The standards that generated the status *Affected* are listed in **bold**.

Ref	Qualification Title	ID
0857	National Certificate in Electricity Supply (Vegetation Control) (Level 3)	18274
0858	National Certificate in Electricity Supply (Vegetation Control) (Level 4)	10513
0869	National Certificate in Electricity Supply (Cable Jointer - Low Voltage) (Level 3)	18027
0874	National Certificate in Electricity Supply (Line Mechanic Distribution) (Level 4)	15011, 15013, 10518 , 10526, 10545, 12295 , 16278 , 17027 , 17632
0892	National Certificate in Electricity Supply (Network Operator) (Level 4)	10526, 16278
1117	National Certificate in Electricity Supply (Field Switcher) (Level 4) with optional strands in Distribution Networks, Transmission Networks, and Operational and Co-ordination Planning	10526, 12295 , 17027
1118	National Certificate in Electricity Supply (Sub Station Maintainer) (Level 4)	17027

1293	National Certificate in Electricity Supply (Level 2) with optional strands in Electrical, Electrical Fitter, and Line Mechanic	18274
1294	National Certificate in Electricity Supply (Electrical) (Level 3) with strands in Electricity Supply Electrician, Electrical Fitter, and Electrical Technician	17027, 18027, 18272
1369	National Certificate in Electricity Supply (Line Mechanic Distribution) (Level 3)	10510, 10549, 18027, 18272
1389	National Certificate in Electricity Supply (Line Mechanic Transmission) (Level 4) with optional strands in Optional Work Skills (E1 (O)), and Optional De-energised Work Skills (E3)	10510, 12295, 18272
1624	National Certificate in Electricity Supply (Distribution Faultman) (Level 4) with strands in Line Mechanic, and Electrician	10510, 10511, 10513, 18272
1631	National Certificate in Electricity Supply (Utility Arborist) (Level 2) with an optional strand in Insulated Tool Work	18274

Key to review category	
A	Dates changed, but no other changes are made - the new version of the standard carries the same ID and a new version number
B	Changes made, but the overall outcome remains the same - the new version of the standard carries the same ID and a new version number
C	Major changes that necessitate the registration of a replacement standard with a new ID
D	Standard will expire and not be replaced

Detailed list of unit standards – classification, title, level, and credits

Engineering and Technology > Electricity Supply > Electricity Supply - Core Skills

ID	Title	Level	Credit	Review Category
10509	Climb and work on electricity network structures	3	6	B
10545	Joint LV polymeric insulated power cables in the electricity supply industry Terminate and joint LV polymeric insulated power cables in the electricity supply industry	3	6	B
17025	Carry out a rescue from an electrical structure	3	2	B
17027	Demonstrate the requirements for holding access permits for work on high voltage electrical lines Demonstrate the requirements for holding access permits for work on high voltage electrical lines, cables, and equipment	3 3	2 4	B
18272	Operate power-operated elevating work platforms (EWP) in an electricity supply environment	3	5	B
18273	Demonstrate knowledge of the composition, properties, and principles of electricity Demonstrate knowledge of conductors, insulators, and semiconductors used in the electricity supply industry	2	5	B
18274	Demonstrate knowledge of electricity supply networks	3	8	B
18276	Operate light lifting and rigging equipment in the electricity supply environment	2	2	B
19950	Use test instruments and carry out electrical testing in the electricity supply industry	3	3	B
20423	Install high voltage electricity network overhead conductors	4	8	B
23897	Demonstrate knowledge of power transformer theory for electricity supply	2 3	3	B
28109	Demonstrate and apply knowledge of legislation and codes of practice for registration as a line mechanic or cable joiner	4	8	New
28110	Demonstrate knowledge of electrical cost consumption, and a.c. theory as it applies to the electricity supply industry	3	4	New
28111	Plan, install, test, and commission an electric line on an electricity network and carry out a rescue from an electricity structure	4	10	New

Engineering and Technology > Electricity Supply > Electricity Supply - Distribution Networks

ID	Title	Level	Credit	Review Category
10511	Develop work plans for construction and servicing of overhead electrical lines and equipment Develop a work schedule for the process of construction and servicing of overhead electrical lines and equipment	4	6	B
10512	Joint electricity network overhead conductors	3	4	B
10513	Demonstrate knowledge of determining the condition of electrical lines Demonstrate knowledge of inspection of electrical lines	3	6	B
10518 28192	Install and service street lighting Demonstrate knowledge of street light installations	4 4	8 2	C
10521	Install and replace electricity network pole structures	4	10	B
10522	Install low voltage (LV) electricity network overhead conductors	4	8	B
10526	Operate ground and structure mounted electrical equipment associated with electric lines or cables up to 66kV	3	4	B
10529	Dismantle electricity network lines and structures	4	6	B
10544	Install electrical lines and telecommunications cables in an electricity supply environment Install electrical lines and cables in an electricity supply environment	4	6	B
12295	Apply and remove earths from conductors on electricity supply networks	3 4	4	B
12298 18024 28113	Install pad mounted electrical equipment Install structure mounted electrical equipment in the electricity supply industry environment Install pad and structure mounted electrical equipment	4 4 4	6 6 8	C C
17632	Overhaul distribution pole and tower hardware in electricity networks up to 66kV	4	8	B
18027 28193	Draw sketches and interpret electricity supply service plans Use drawings, sketches, schedules, and specifications in electricity supply industry	2 3	4 3	C
23896	Demonstrate knowledge of electrical circuit protection for Line Mechanics Demonstrate knowledge of electrical circuit protection for distribution networks	3 4	4	B

Engineering and Technology > Electricity Supply > Electricity Supply - Power System Management

ID	Title	Level	Credit	Review Category
16278	Evaluate faults on electricity supply network plant and equipment	4	9	C
28195	Demonstrate knowledge of faults on electricity supply network plant and equipment	4	4	

Engineering and Technology > Electricity Supply

ID	Domain	Title	Level	Credit	Review Category
10510	Electricity Supply - Distribution Networks	Use machinery, plant and equipment in an electricity network environment	4	6	C
10549	Electricity Supply - Distribution Networks	Load, transport and store electricity supply cables, plant and equipment	3	4	C
28112	Electricity Supply - Core Skills	Use and store machinery, plant, and equipment in an electricity network working	4	6	
28194	Electricity Supply - Core Skills	Demonstrate knowledge and carry out polarity on electricity supply networks	3	3	New