

Field Engineering and Technology

Review of *Electricity Supply* unit standards

Subfield	Domain	ID
Electricity Supply	Electricity Supply - Core Skills	10507-10509, 12300, 17025-17027, 18038, 18272-18276, 19950, 20092, 23897, 28109-28111, 28194
	Electricity Supply - Distribution Networks	10511-10513, 10521, 10522, 10526, 10529, 10544, 10545, 17632, 20423, 23896, 28113, 28192, 28193
	Electricity Supply - Power System Management	28195

Connexis has completed the review of the unit standards listed above.

Date new versions published

November 2019

Planned review date

December 2024

Summary

Connexis reviewed the New Zealand Certificate in Electricity Supply (Line Mechanic Distribution) (Level 4) [Ref: 2197]. At the same time as the qualification review, the unit standards used to assess the Connexis programme were also reviewed.

Consultation with industry occurred during May 2019. Their feedback was considered by a group of industry and Connexis representatives, followed by further consultation in June 2019. The proposed changes were endorsed by stakeholders.

Main changes

- References to legislation were updated and guidance information was standardised in all standards.
- Some standards have changes to level, as identified in the table below, to align with the employment role in which the task is performed.
- Some standards have changes to titles, as identified in the table below, to more accurately reflect the outcome(s).
- Some standards were consolidated to one outcome and have simplified performance criteria without substantially changing the overall outcome.
- Major changes were made to unit standards 28111 and 28193 that necessitated the registration of replacement standards with a new ID.
- Unit standard 18276 was divided into two new standards to separate theory and practice.
- A new unit standard was developed for the optional strand of the qualification.

Category C unit standards will expire at the end of December 2021

The last date for assessment of superseded versions of Category B unit standards is December 2021

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
Subfield	Electricity Supply	3	Standards	10509, 10513, 19950, 28110, 28193, 28194	4
Domain	Electricity Supply - Core Skills	2	Standards	18273, 31953, 31955	3
Standard	18276	2	Standard	31953	3
			Standard	31955	3
Standard	28193	3	Standard	31952	4

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

All changes are in **bold**.

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

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

ID	Title	Level	Credit	Review Category
10507	Use personal protection equipment within an electricity supply environment Use personal protective equipment in an electricity supply environment	2	4	B
10508	Identify electricity systems in preparation for work Identify electricity systems used in the electricity supply industry	2	6	B
10509	Climb and work on electricity network structures	3 4	6	B
12300	Demonstrate knowledge of electricity industry safety statutes and codes Demonstrate knowledge of safety statutes and codes used in the electricity supply industry	2	6	B
17025	Carry out a rescue from an electrical structure Rescue a victim from an electrical structure	3	2	B
17026	Demonstrate knowledge of safe entry into restricted areas in an electricity supply environment Demonstrate knowledge of safe entry into restricted areas on an electricity supply site	2	6	B
17027	Demonstrate the requirements for holding access permits for work on high voltage electrical lines, cables, and equipment Demonstrate the requirements for holding access permits for work on electrical lines, cables, and equipment	3	4	B

ID	Title	Level	Credit	Review Category
18038	Demonstrate knowledge of and apply health and safety in the electricity supply environment Describe health and safety duties on electricity supply sites	3 2	5	B
18272	Operate power-operated elevating work platforms (EWP) in an electricity supply environment Operate a mobile elevating work platform (MEWP) in an electricity supply environment	3	5	B
18273	Demonstrate knowledge of conductors, insulators, and semiconductors used in the electricity supply industry	2 3	5	B
18274	Demonstrate knowledge of electricity supply networks	3	8	B
18275	Demonstrate knowledge of the New Zealand electricity supply industry Describe the major sectors in the New Zealand electricity supply industry and the relationships between them	2	2	B
18276	Operate light lifting and rigging equipment in the electricity supply environment	2	2	C
31953	Operate light lifting and rigging equipment in an electricity supply environment	3	2	
31955	Demonstrate knowledge of light lifting and rigging equipment in the electricity supply environment	3	2	
19950	Use test instruments and carry out electrical testing in the electricity supply industry Demonstrate knowledge of electrical test instruments and carry out electrical testing	3 4	3 4	B
20092	Demonstrate knowledge of electricity transmission and distribution plant and equipment Demonstrate knowledge of plant and equipment in electricity supply networks	2	4	B
23897	Demonstrate knowledge of power transformer theory for electricity supply	3	3	B
28109	Demonstrate and apply knowledge of legislation and codes of practice to register as a line mechanic or cable jointer	4	8	B
28110	Demonstrate knowledge of electrical cost consumption, and a.c. theory as it applies to the electricity supply industry Demonstrate knowledge of electrical power, energy, cost of consumption, and inductors and capacitors in AC circuits	3 4	4	B
28111	Plan, install, test, and commission an electric line on a network and carry out a rescue from an electricity structure	4	10	C
31954	Install and commission network lines, and service a transformer using an access permit	4	10	
28194	Demonstrate knowledge of, and carry out polarity and phasing on electricity supply networks Describe polarity and phasing tests on electricity supply networks	3 4	3	B

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

ID	Title	Level	Credit	Review Category
10511	Develop a work schedule for the process of construction and servicing of overhead electrical lines and equipment Develop a work schedule from electrical lines design documents	4	6	B
10512	Joint electricity network overhead conductors	3	4	B
10513	Demonstrate knowledge of inspection of electrical lines Conduct an inspection of electrical lines	3 4	6	B
10521	Install and replace electricity network pole structures	4	10	B
10522	Install low voltage (LV) electricity network overhead conductors Install low voltage electricity network overhead conductors	4	8	B
10526	Operate ground and structure mounted electrical equipment associated with electric lines or cables up to 66kV Operate electrical equipment associated with electric lines or cables up to 66 kV	3	4	B
10529	Dismantle electricity network lines and structures	4	6	B
10544	Install electrical lines and cables in an electricity supply environment	4	6	B
10545	Terminate and joint LV polymeric insulated power cables in the electricity supply industry Terminate and joint de-energised low voltage polymeric insulated power cables	3	6	B
17632	Overhaul distribution pole and tower hardware in electricity networks up to 66 kV	4	8	B
20423	Install high voltage (HV) electricity network overhead conductors Install high voltage electricity network overhead conductors	4	8	B
23896	Demonstrate knowledge of electrical circuit protection for distribution networks Demonstrate knowledge of electrical circuit protection for electricity supply networks	4	4	B
28113	Install pad and structure mounted electrical equipment	4	8	B
28192	Demonstrate knowledge of street light installations	4	2	B
28193	Use drawings, sketches, schedules and specifications in the electricity supply industry	3	3	C
31952	Prepare a plan of work and produce freehand sketches for electricity installations	4	3	

Engineering and Technology > Electricity Supply > Electricity Supply - Live Work

ID	Title	Level	Credit	Review Category
31956	Replace and install hardware on live low voltage structures	4	10	New

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

ID	Title	Level	Credit	Review Category
28195	Demonstrate knowledge of faults on electricity supply network plant and equipment Demonstrate knowledge of fault diagnosis and power restoration on electricity supply network plant and equipment	4	4	B