

**Field      Engineering and Technology**

**Review of *Electricity Supply* unit standards**

<b>Subfield</b>	<b>Domain</b>	<b>ID</b>
Electricity Supply	Electricity Supply - Core Skills	12387, 20090, 20093, 20095, 28020
	Electricity Supply - Distribution Networks	10547, 10550, 18030, 18032, 20061, 20063, 20535, 23896, 26705, 28276, 28278, 28279, 28281, 28492-28494
	Electricity Supply - Power System Management	16284
	Electricity Supply - Testing	24152

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

**Date new versions published**

**August 2020**

**Planned review date**

**December 2025**

**Summary**

Connexis identified unit standards that required review as part of qualification reviews for the following qualifications:

- New Zealand Certificate in Electricity Supply (Utility Arboriculture) (Level 3) with optional strand in Insulated Tool Work [Ref: 2613],
- New Zealand Certificate in Electricity Supply (Cable Jointing High Voltage) (Level 4) with optional strand in 33kV [Ref: 2227], and
- New Zealand Certificate in Electricity Supply (Fault Response and Switching) (Level 4) with strands in Fault Response and Switching [Ref: 3586].

Consultation occurred with stakeholders with consent to assess against these unit standards in March and April 2020.

**Main changes**

- Guidance information was updated in all standards to ensure currency with industry knowledge and practice.
- Some standards were condensed to one outcome to more accurately reflect the task being assessed.
- Titles and/or outcomes or range statements for some unit standards were altered to reflect changes in practice in the high voltage electricity supply industry.
- Levels for four unit standards were lowered, as identified in the table below, to better align with the job role.
- Credit values of two unit standards were increased, as identified in the table below, to reflect the increase in types of switchgear.
- Unit standards 23896, 28276, and 28279 were designated expiring with their content consolidated into a new replacement standard to address duplication of outcomes.
- New unit standards were developed to address the need for switching instructions, and new cable technology in distribution networks.

**Category C unit standards will expire at the end of December 2022**

The last date for assessment of superseded versions of Category B unit standards is December 2022

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	Standard	32176	4
Domain	Electricity Supply - Power System Management	5-6	Standard	32171	4

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

All changes are in **bold**.

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

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

ID	Title	Level	Credit	Review Category
12387	Operate electrical switchgear in the electricity supply industry	4	6 <b>10</b>	B
20090	Carry out switching operations on metal clad switchgear <b>Demonstrate knowledge of and operate metal clad switchgear</b>	4	3 <b>10</b>	B
20095	Respond to substation secondary systems alarms and indications in the electricity supply industry	4	4	B
28020	Demonstrate knowledge of safe working electrical practices for Electricity Supply Workers	2	5	B

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

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

ID	Title	Level	Credit	Review Category
20093	Develop and action an operating sequence in the electricity supply industry	4	4	C
<b>32171</b>	<b>Describe switching instructions and how to compile them, and action a switching instruction in electricity supply</b>	<b>4</b>	<b>10</b>	

ID	Title	Level	Credit	Review Category
10547	Joint high voltage polymeric insulated power cables up to and including 11kV in the electricity supply industry <b>Joint high voltage polymeric insulated power cables up to 22kV in the electricity supply industry</b>	4	10	B
10550	Joint high voltage polymeric insulated power cables from 22kV to 33kV in the electricity supply industry <b>Joint high voltage polymeric insulated power cables up to 33kV in the electricity supply industry</b>	5 4	10	B
18030	Operate power-operated elevating work platforms (EWP) to prune trees around power lines <b>Operate mobile elevating work platforms to prune trees around power lines</b>	4 3	5	B
18032	Measure trees and lines for vegetation control around power lines to minimum approach distance <b>Measure trees and lines for vegetation control around power lines</b>	3	4	B
20061	Terminate high voltage polymeric insulated power cables up to and including 11kV in the electricity supply industry <b>Terminate high voltage polymeric insulated power cables up to 22kV in the electricity supply industry</b>	4	10	B
20063	Terminate high voltage polymeric insulated power cables from 22kV to 33kV in the electricity supply industry <b>Terminate high voltage polymeric insulated power cables up to 33kV in the electricity supply industry</b>	5 4	10	B
20535	Joint electricity supply power cables from 3.3 kV up to and including 11kV using transition jointing methods <b>Joint high voltage paper insulated cable to polymeric insulated cable up to 22kV using a transition jointing method</b>	4	15	B
23896	Demonstrate knowledge of electrical circuit protection for electricity supply networks	4	4	C
28276	Demonstrate knowledge of electrical circuit protection devices for power cables	3	2	C
28279	Demonstrate knowledge of electrical protection principles and the causes and effects of faults on distribution networks	4	4	C
32176	<b>Demonstrate knowledge of electrical circuit protection for electricity supply networks</b>	4	5	
26705	Carry out tree work in the insulated tool zone around power lines	4	5	B
28278	Plan, joint, and test underground cables, and carry out a rescue from an electricity confined space <b>Plan, joint, and test underground cables, and carry out a rescue from an electricity supply pit</b>	4	10	B
28281	Joint high voltage paper and polymeric insulated cables using a transition jointing method <b>Joint high voltage paper insulated cable to polymeric insulated cable up to 33kV using a transition jointing method</b>	5 4	15	B

ID	Title	Level	Credit	Review Category
28492	Demonstrate knowledge of earthing and bonding mobile equipment around power lines for vegetation control and tree work	3	4	B
28493	Demonstrate knowledge of vegetation and tree work in the vicinity of power lines and underground power cables <b>Demonstrate knowledge of vegetation and tree work near power lines and cables</b>	3	4	B
28494	Carry out vegetation and tree work near power lines and underground power cables <b>Work on vegetation and trees near power lines and cables and demonstrate emergency procedures in utility arboriculture</b>	4	8	B
32172	<b>Joint copper pilot power cables</b>	4	4	New
32173	<b>Terminate copper pilot power cables</b>	4	4	New
32174	<b>Demonstrate knowledge of the installation of power cables</b>	3	3	New

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

ID	Title	Level	Credit	Review Category
16284	Remove electricity supply network equipment from service for access for work (System Operation) <b>Remove and return electricity supply network equipment from service for access for work (System Operation)</b>	4	10	B

Engineering and Technology > Electricity Supply > Electricity Supply - Testing

ID	Title	Level	Credit	Review Category
24152	Operate a cable spiking tool <b>Operate a cable spiking and cutting tool</b>	3	2	B