

Title	Demonstrate and apply knowledge of legislation and codes of practice in the electricity supply industry		
Level	4	Credits	8

Purpose	<p>This unit standard leads to the partial fulfilment of the requirements for registration with the Electrical Workers Registration Board (EWRB).</p> <p>People credited with this unit standard are able to demonstrate knowledge of:</p> <ul style="list-style-type: none"> • regulatory requirements regarding earthing in the electricity supply industry; and • electrical bonding in the electricity supply industry. <p>They are also able to demonstrate and apply knowledge of the:</p> <ul style="list-style-type: none"> • Electricity Act 1992 and Electricity (Safety) Regulations 2010; • relevant New Zealand Electrical Codes of Practice; and • New Zealand Electricity Industry safety standards.
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Classification	Electricity Supply > Electricity Supply - Core Skills
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Available grade	Achieved
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Guidance Information

- 1 This unit standard underpins one of the capstone assessments for registration with the EWRB for electrical workers in the electricity supply industry.
- 2 Evidence presented for assessment against this unit standard must be consistent with safe working practices and meet the requirements of the EWRB Line Mechanics and Cable Jointers Examination Prescription and Teaching Guidelines.

- 3 Legislation, regulations and/or industry standards relevant to this unit standard include but are not limited to the:
- Health and Safety at Work Act 2015;
 - Electricity Act 1992;
 - Electricity (Safety) Regulations 2010;
 - AS/NZS 3000, *Electrical Installations (known as the Australian/New Zealand Standard for Wiring Rules)* available at <https://www.standards.govt.nz/>;
 - electricity supply industry codes of practice and documented enterprise procedures, including Electrical Engineers' Association *Safety Manual – Electricity Industry* (SM-EI) and relevant EEA guides available at www.eea.co.nz; and *New Zealand Electrical Codes of Practice* available at <https://worksafe.govt.nz>; and any subsequent amendments and replacements.
- 4 Definition
- Electrical worker* includes Distribution Line Mechanic, Cable Jointer, Transmission Line Mechanic, Traction Line Mechanic, Substation Maintainer, and excludes Electricians.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of regulatory requirements regarding earthing in the electricity supply industry.

Performance criteria

- 1.1 Electrical terms are defined according to current regulations and standards.
- Range earthed, earthed situation, earthing system, earth electrode, earth impedance, protective earthing conductor, main earthing conductor.
- 1.2 Reasons for the requirement of low resistance for an earthing system are explained according to electrical codes of practice.
- 1.3 Metalwork that must be earthed in the electricity supply environment is described according to current regulations, codes of practice and standards.
- Range metalwork forming parts of works, electrical installations, appliances, accessories.

Outcome 2

Demonstrate knowledge of electrical bonding in the electricity supply industry.

Performance criteria

2.1 Electrical terms are defined according to current regulations, codes of practice and standards.

Range electrical bonding, earth bonding, equipotential bonding.

2.2 The need for bonding metalwork and equipment is explained in terms of the elimination of the risk of electric shock, step and touch voltages.

Outcome 3

Demonstrate and apply knowledge of the Electricity Act 1992 and the Electricity (Safety) Regulations 2010.

Range provisions of the Act and regulations relating to – electrical safety, registration and licensing of workers, testing of prescribed electrical work, certification of prescribed electrical work, connection of prescribed electrical work.

Performance criteria

3.1 The provisions of the Act and regulations are explained.

3.2 The Act and regulations are applied to given practical situations within the scope of work performed by a registered electrical worker in the electricity supply industry.

Outcome 4

Demonstrate and apply knowledge of relevant New Zealand Electrical Codes of Practice.

Range provisions of the Act and regulations relating to – electrical safety, testing of prescribed electrical work, certification of prescribed electrical work, connection of prescribed electrical work.

Performance criteria

4.1 Aspects of the New Zealand Electrical Codes of Practice relevant to the electricity supply industry are explained.

4.2 New Zealand Electrical Codes of Practice are applied to given practical situations within the scope of work performed by a registered electrical worker in the electricity supply industry.

Range Codes of Practice must include Electrical safe distances (NCECP 34); and Power systems earthing (NZECP 35); Codes of Practice for Distribution and Transmission workers must also include – High voltage live line work-Part 1 (NZECP 46); Codes of Practice for Traction workers must also include – BS EN 50119, BS EN 50122-1, IEC 60913 and IEC 62128-1.

Outcome 5

Demonstrate and apply knowledge of New Zealand Electricity Industry safety standards.

Range provisions of the Act and regulations relating to – electrical safety, registration and licensing of workers, testing of prescribed electrical work, certification of prescribed electrical work, connection of prescribed electrical work.

Performance criteria

- 5.1 Aspects of the SM-EI relevant to the electricity supply industry are explained.
- 5.2 Safety standards are applied to given practical situations within the scope of work performed by a registered electrical worker in the electricity supply industry.

Replacement information	This unit standard replaced unit standard 28109, unit standard 28885, and unit standard 28942.
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Planned review date	31 December 2025
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	26 November 2020	31 December 2023
Revision	2	30 September 2021	31 December 2023
Review	3	26 May 2022	N/A

Consent and Moderation Requirements (CMR) reference	0120
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Waihanga Ara Rau Construction and Infrastructure Workforce Development Council qualifications@WaihangaAraRau.nz if you wish to suggest changes to the content of this unit standard.