

Title	Demonstrate knowledge of electrical legislation and installation testing as an endorsed line mechanic		
Level	4	Credits	10

Purpose	People credited with this unit standard are able to: demonstrate knowledge of the responsibilities and limitations pertaining to holders of EWRB endorsed line mechanic class of registration; identify and apply Electricity (Safety) Regulations 2010, codes of practice, and relevant standards; and demonstrate knowledge of testing for compliance with AS/NZS 3000.
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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 Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with applicable legislative and industry requirements.
- 2 Legislation, regulations and/or industry standards relevant to this unit standard include but are not limited to:
 - Health and Safety at Work Act 2015;
 - Electricity Act 1992;
 - Electricity (Safety) Regulations 2010;
 - Electricity supply industry codes of practice and documented enterprise procedures, including *Safety Manual – Electricity Industry (SM-EI)* and relevant EEA guides available from www.eea.co.nz;
 - AS/NZS 3000:2018 *Electrical installations* (known as the *Australian/New Zealand Wiring Rules*);
 - AS/NZS 3017:2007 *Electrical installations – Verification guidelines*; available at <https://www.standards.govt.nz/>; and any subsequent amendments and replacements.
- 3 Definitions

Asset owner refers to a participant who owns or operates assets used for generating or conveying electricity.

Industry requirements include all asset owner requirements and standards; manufacturers' specifications; and enterprise requirements which cover the documented workplace policies, procedures, specifications, business, and quality management requirements relevant to the workplace in which assessment is carried out.

Supervision – any trainee who is assisting with the carrying out of prescribed electrical work must be supervised under such control and direction to ensure that:

- a the work is carried out competently;
- b while the work is being undertaken, appropriate safety measures are adopted; and
- c the completed work complies with the Electricity (Safety) Regulations 2010.

Supervisor – a person holding a current practising licence issued by the EWRB that authorises that person to supervise prescribed electrical work.

Trainee – a person who is undergoing instruction or training in any class of prescribed electrical work for the purpose of obtaining registration as a registered person; and includes an apprentice who is working in the electricity industry who has uplifted a Trainee Limited Certificate.

Other terms and interpretations are defined in the Electricity Act 1992, The Electricity Amendment Act 2006, Electricity (Safety) Regulations 2010, AS/NZS 3000 and the Companion Standards as prescribed in Schedule 2 of the Regulations.

4 Assessment

- a Candidates are permitted to refer to copies of the above references during assessments.
- b Only registered persons can complete certificates of compliance and safety.

For the assessment of this standard, a dummy or practice certificate of compliance is to be used.

5 Reference

Electrical Engineers Association (2013). *Line Mechanic and Cable Jointers Handbook*. Chapter 25 Testing Safety of Persons; Chapter 26 Testing – Network Equipment, Test Instruments and Meters. (6th ed.). Wellington: EEA.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of the responsibilities and limitations pertaining to holders of EWRB endorsed line mechanic class of registration.

Performance criteria

- 1.1 The terms 'supervision' and 'supervisor of electrical work' are defined in accordance with the Electricity Act.
- 1.2 The limits of work that trainees may undertake are described and the conditions under which they can carry out that work are explained.
- 1.3 The requirements for holding a Trainee Limited Certificate during training are explained.
- 1.4 Prescribed electrical work is explained in terms of the Electricity (Safety) Regulations (2010).

- 1.5 The limits of electrical work that may be carried out after obtaining endorsed line mechanic registration from the Electrical Workers Registration Board are described.
- 1.6 The limits and restrictions that the EWRB may impose upon registered persons are described with regard to the type of work that may be undertaken, and where, and for whom the registered person may work.
- 1.7 The responsibilities of persons carrying out 'prescribed electrical work', in accordance with the Electricity Regulations are described.

Range responsibilities – compliance with the Electricity Act, Electricity (Safety) Regulations, Health and Safety at Work Act, codes of practice, and all relevant standards as they apply to the work undertaken; high standard of work; safe working practices.

Outcome 2

Identify and apply Electricity (Safety) Regulations 2010, codes of practice, and relevant standards.

Range Electricity Act 1992, Electricity (Safety) Regulations 2010, and all relevant standards; evidence is limited to regulations and codes of practice, or parts thereof, which relate to work that endorsed line mechanics may perform.

Performance criteria

- 2.1 Electricity Regulations, codes of practice, and all relevant standards are identified by quoting number, clause, and verbatim text pertinent to any aspect of endorsed line mechanic work.
- 2.2 Regulations, codes of practice and all relevant standards are applied to practical situations within the scope of endorsed line mechanic work.

Outcome 3

Demonstrate knowledge of testing for compliance with AS/NZS 3000.

Performance criteria

- 3.1 Equipment required for testing installation is identified.
- Range tests – insulation resistance, polarity, circuit and earth continuity, bonding, earth pin resistance, earth loop impedance.
- 3.2 Procedures and safety requirements to carry out electrical tests without damaging electrical accessories or equipment in installation are explained.
- Range tests – insulation resistance, polarity, circuit and earth continuity, bonding, earth resistance, earth loop impedance.

- 3.3 Completion and issue of compliance certificates in accordance with current regulations and standards is explained.

Planned review date	31 December 2026
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	16 March 2017	31 December 2023
Review	2	30 September 2021	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 Connexis - Infrastructure Industry Training Organisation qualifications@connexis.org.nz if you wish to suggest changes to the content of this unit standard.