

Title	Read and interpret single line diagrams in the electricity supply industry		
Level	3	Credits	3

Purpose	People credited with this unit standard are able to read and interpret single line diagrams in the electricity supply industry.
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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 the current version of the Health and Safety at Work Act 2015; Electricity Act 1992; Electricity (Safety) Regulations 2010; and any subsequent amendments and replacements; Electricity supply industry codes of practice and documented enterprise procedures, including *Safety Manual – Electricity Industry* (SM-EI) (2015) Wellington: Electricity Engineers' Association, available at www.eea.co.nz.
- 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; manufacturers' specifications; and enterprise requirements which may include the documented workplace policies, procedures, specifications, business, and quality management requirements relevant to the workplace in which assessment is carried out.

Outcomes and performance criteria

Outcome 1

Read and interpret single line diagrams in the electricity supply industry.

Range evidence is required for five diagrams.

Performance criteria

- 1.1 Single line diagrams are located, identified, and confirmed as current.

- 1.2 The purpose of single line diagrams is described.
- 1.3 Symbols for equipment on the single line diagrams are identified and their use is explained.
- Range includes but is not limited to – current, earthing, voltage, power, auto, and capacitive voltage transformers; surge arrestor, rod gaps, tap changer on load, power cable, indoor metal clad switchgear, reactor, capacitor, static capacitor bank, line trap, generator, rectifier and invertors, synchronous condenser, earth switch, disconnecter, circuit breaker.
- 1.4 Single line diagrams are read and interpreted.
- Range includes but is not limited to – current, earthing, power and voltage transformers; line earth switch, line circuit breaker, bus coupler circuit breaker, surge arrestor, rod gaps, power cable, indoor switchboard, supply bus, line disconnecter, bus selection disconnecter, bypass disconnecter generator, rectifier and invertors, synchronous condenser.
- 1.5 Bus voltages and ratings are identified on single line diagrams.

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	22 October 2003	31 December 2013
Rollover and Revision	2	26 November 2007	31 December 2013
Review	3	9 December 2010	31 December 2022
Review	4	27 February 2020	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.