

Title	Demonstrate knowledge of vegetation and tree work near power lines and cables		
Level	3	Credits	4

Purpose	People credited with this unit standard are able to demonstrate knowledge of vegetation and tree work near power lines and cables.
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Classification	Electricity Supply > Electricity Supply - Distribution Networks
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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:
 - 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) available at www.eea.co.nz;
 - *Approved Code of Practice: Arboriculture*;
 - *Approved Code of Practice: Maintenance of Trees Around Power Lines*;
 - *Working Near Overhead Electric Power Lines*;
 - *Best Practice Guidelines: Mobile Elevating Work Platforms*;
 - *Guide for Safety with Underground Services*, available at <https://worksafe.govt.nz>;
 - BS 3998:2010 *Tree work: Recommendations* available from <http://www.standards.co.nz/>;
 - ANSI Z133.1-2006 *Safety Requirements*, available from <https://webstore.ansi.org>.
- 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.

NZECP refers to New Zealand Electrical Code of Practice.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of vegetation and tree work near power lines and cables.

Performance criteria

- 1.1 Tree work and vegetation terms used by utility arborists are explained.
- Range includes but is not limited to – clearance, crown lift, fall distance defect, fall to grade, maximum sag defect, reduction, swing clearance, conductor sag, span centre, utility arborist minimum approach distance, vegetation management zone, ordinary person zone, insulated tool zone, work in excavations; evidence of five required.
- 1.2 Requirements for documentation are described.
- Range may include but is not limited to – hazard identification sheets, job or time sheets, maintenance checklists, procedure forms; evidence of two required.
- 1.3 Electricity distribution network management liaison requirements are described.
- Range includes but is not limited to – circuit and voltage confirmation, receipt of a work authority, shut-down procedures, any procedures required by the company, work on private high-voltage spur lines, gaining close approach permits to work and operate plant within four metres of lines, receiving permits; evidence of four required.
- 1.4 Work zone hazards are identified according to company and/or asset owner's requirements.
- Range includes but is not limited to – hazard identification sheets, equipment and machinery checklists, crew briefings and task allocations, work plan and strategies, emergency plan, toolbox meetings, vegetation control around electricity lines regulatory codes of practice; evidence of three required.
- 1.5 Methods to control hazards involved in the work zone are described according to company or asset owner's procedures.
- Range includes but is not limited to – hazards involved with manual climbing, using mobile elevating working platforms (MEWP), groundwork, working above ground, working near electricity supply lines, use of safety observer. evidence of three required.

1.6 Requirements for working near underground power cables are explained.

Range may include but is not limited to – consents from cable owner, obtain plans or reference maps, locate services and cables, plan excavation, follow safe approach distance specified in NZECP 34, visual survey for cable markers.

Replacement information	This unit standard and unit standard 28494 replaced unit standard 17152.
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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	20 November 2014	31 December 2022
Review	2	27 August 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 the Connexis - Infrastructure Industry Training Organisation at qualifications@connexis.org.nz if you wish to suggest changes to the content of this unit standard.