

Title	Install and commission network lines, and service a transformer using an access permit		
Level	4	Credits	10

Purpose	<p>People credited with this unit standard are able to:</p> <ul style="list-style-type: none"> • receive and return an access permit to authorise work on isolated network lines; • install and commission network lines on an electricity structure as a member of a team; and • service a high voltage transformer installed on the electricity network. <p>This unit standard partially fulfils the requirements for registration for line mechanics with the Electrical Workers Registration Board.</p>
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Classification	Electricity Supply > Electricity Supply - Core Skills
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Available grade	Achieved
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Prerequisites	Unit 10509, <i>Climb and work on electricity network structures</i> ; or demonstrate equivalent knowledge and skills.
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Guidance Information

- 1 This unit standard underpins one of the capstone assessments for registration with the EWRB for Distribution Line Mechanics and all terminology should be related to that sector of 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 Examination Prescription and Teaching Guidelines. An independent assessor must be used for the assessment of this unit standard.

- 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; and any subsequent amendments and replacements
 - Electricity supply industry codes of practice and documented enterprise procedures, including Electricity Engineers' Association *Safety Manual – Electricity Industry* (SM-EI) (current version) and relevant EEA guides available from www.eea.co.nz.
- 4 Definitions
- AC* refers to alternating current.
- Asset owner* refers to a participant who owns or operates assets used for generating or conveying electricity.
- HV* refers to high voltage and includes voltages greater than 1000 volts AC.
- 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.
- LV* refers to low voltage and includes voltages exceeding 50 volts AC but not exceeding 1000 volts AC.
- 5 The activities of this unit standard may be conducted using a simulated electricity workplace environment.

Outcomes and performance criteria

Outcome 1

Receive and return an access permit to authorise work on isolated network lines.

Performance criteria

- 1.1 Process for obtaining an access permit is identified and carried out in accordance with SM-EI.
- 1.2 Access permit is obtained.
- 1.3 Permit conditions are communicated to team members and issuer applied safety measures are put in place.
- 1.4 Access permit is returned in accordance with SM-EI.

Outcome 2

Install and commission network lines on an electricity structure as a member of a team.

Performance criteria

- 2.1 Risk assessment is completed prior to work being undertaken.
- 2.2 LV network lines are installed under live HV lines.
- 2.3 LV network lines are installed on electricity structures to industry and asset owner's requirements.
- 2.4 LV network lines are tested.
- 2.5 LV network lines are commissioned under live HV lines.

Outcome 3

Service a high voltage transformer installed on the electricity network.

Performance criteria

- 3.1 Power transformer is isolated, earthed, and access permit issued in accordance with asset owner's or industry requirements.
- 3.2 New 11 kV tap setting is identified and changed.
- 3.3 Access permit is cancelled.
- 3.4 Power transformer is energised, and the transformer output voltage is tested, in accordance with asset owner's or industry requirements.

Replacement information	This unit standard replaced unit standard 28111.
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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	28 November 2019	31 December 2023
Review	2	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.