

<b>Title</b>	<b>Demonstrate knowledge of traction network hardware defects</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>3</b>

<b>Purpose</b>	People credited with this unit standard are able to demonstrate knowledge of traction network hardware defects.
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<b>Classification</b>	Electricity Supply > Electricity Supply - Distribution Networks
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<b>Available grade</b>	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 asset owner, company, and legislative requirements.
- 2 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 *Safety Manual – Electricity Industry (SM-EI) (2015)* Wellington: Electricity Engineers' Association, available from [www.eea.co.nz](http://www.eea.co.nz).
- 3 Definition  
*Asset Owner or Company requirements* refer to instructions to staff on policy and procedures that are available in the workplace. These requirements may include – asset owner policies and procedures, company policies and procedures, work instructions, product quality specifications and legislative requirements.

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### Outcomes and performance criteria

#### Outcome 1

Demonstrate knowledge of traction network hardware defects.

#### Performance criteria

- 1.1 Types of, codes and causes of network hardware defects are described.

Range may include – chips in the concrete spalling, cracking, steel corrosion, deformation, splits, wear, ground movement, traction wire sags, conductor and traction wire insulation, mechanical and thermal stress; evidence of four defects is required.

1.2 The impact of defects on the mechanical structure of network hardware is described.

1.3 Return earth and bonding defects are identified and described.

Range bonded metalwork, return wire bonding, earthing and bonding on structures.

1.4 Condition coding requirements are explained.

<b>Planned review date</b>	31 December 2024
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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	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	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](mailto:qualifications@connexis.org.nz) if you wish to suggest changes to the content of this unit standard.