

Title	Demonstrate knowledge of electrical, mechanical and hydraulic systems used in a wind turbine		
Level	2	Credits	6

Purpose	People who achieve this unit standard will be able to demonstrate knowledge of electrical, mechanical and hydraulic systems used in a wind turbine.
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Classification	Electricity Supply > Electricity Supply - Power System Maintenance
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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* (2015) available from 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 cover 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

Demonstrate knowledge of electrical, mechanical and hydraulic systems used in a wind turbine.

Performance criteria

- 1.1 Electrical systems used in a wind turbine are identified.
- Range systems include – generators, transformers, converters, filters, sensors, communication systems.
- 1.2 Mechanical systems used in a wind turbine are identified.
- Range systems include – bolts, bearings, gearbox, brakes, lubrication, cooling, yaw system.
- 1.3 Hydraulic systems used in a wind turbine are identified.
- Range systems include – pumps, actuators, valves, accumulators, sensors.
- 1.4 Relationships between electrical, mechanical, and hydraulic systems in a wind turbine are described.
- 1.5 Relationships between a wind turbine and the surrounding wind farm are described.
- Range systems include – high voltage transformers, high voltage cables, substation.

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	29 April 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 at qualifications@connexis.org.nz if you wish to suggest changes to the content of this unit standard.