

Title	Demonstrate knowledge of gas boosted solar water heating systems and hydronic heating		
Level	4	Credits	4

Purpose	<p>This unit standard is for people who work in the gasfitting and plumbing industries.</p> <p>People credited with this unit standard are able to demonstrate knowledge of:</p> <ul style="list-style-type: none"> – gas boosted solar water heating systems; and – hydronic heating systems.
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Classification	Plumbing, Gasfitting and Drainlaying > Core Plumbing, Gasfitting, and Drainlaying
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Available grade	Achieved
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Guidance Information

- 1 References
 Building Act 2004;
 Electricity Act 1992;
 Gas Act 1992;
 Gas Regulations 1993;
 Health and Safety at Work Act 2015;
 Plumbers, Gasfitters, and Drainlayers Act 2006;
 Plumbers, Gasfitters, and Drainlayers Regulations 2010;
 NZS 5261:2003 *Gas installation*, available at <http://www.standards.govt.nz>;
 The following clauses, and any related compliance documents, are available at <https://www.building.govt.nz>:
 New Zealand Building Code, Clause E2 External Moisture,
 New Zealand Building Code Clause G11 Gas as an Energy Source;
 and all subsequent amendments and replacements.
- 2 Credit for this unit standard does not entitle the candidate to legally perform certain electrical aspects of this work unless registered or supervised by a registered person under the provisions of the Electricity Act 1992.
- 3 Candidates must hold a current limited certificate or exemption under supervision as issued under the Plumbers, Gasfitters, and Drainlayers Act 2006.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of gas boosted solar water heating systems.

Performance criteria

1.1 Explain process to isolate heating unit from water supply.

1.2 Identify components and explain their purpose and function.

Range circulating pipes and pump, solar collector, diversion valve.

Outcome 2

Demonstrate knowledge of hydronic heating systems.

Performance criteria

2.1 Identify the implications of type of water supply to a hydronic heating system.

Range mains connected water supply, expansion chamber supplied.

2.2 Identify components of a hydronic heating system and explain their purpose and function.

Range circulating pipes, radiators, different types of heat source, circulating pump, flow control valves for zoning, corrosion inhibitor.

Planned review date	31 December 2022
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	26 October 2017	N/A

Consent and Moderation Requirements (CMR) reference	0003
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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 Skills Organisation reviewcomments@skills.org.nz if you wish to suggest changes to the content of this unit standard.