

Natural Gas in the 2021 WA State Residential Energy Code: When is Natural Gas permitted?

With the 2021 WA State Energy Code (WSEC), the State Building Code Council (SBCC) has voted to approve limitations on the use of natural gas in residential buildings in Washington State. These new building and energy codes become effective July 1, 2023. These limitations, intended to reduce greenhouse gas emissions, will generally require the use of heat pumps as the primary equipment for space and/or water heating unless complying with an exception.

Commercial vs. Residential: Which category do I follow? Washington State has two energy codes -- one for residential and one for commercial. The residential energy code (WSEC-R) applies to one-family, two-family, townhouses, and smaller multi-family buildings. Larger multi-family buildings, such as those greater than 3-stories tall or those where access is provided through an interior space, are subject to the commercial energy code (WSEC-C).

Can I use natural gas in my home? Yes! The use of natural gas equipment, except where used for space or water heating, has not been restricted as part of the changes to the residential energy code (WSEC-R). Natural gas may still be used for cooking, fireplaces/pits, lighting, clothes dryers, and emergency power generators. Natural gas may even still be used for space and water heating where used to power a gas heat pump, or as supplemental (backup) energy for electric heat pump water and space heaters. And for homes replacing an existing unit, a like-for-like replacement may continue to use natural gas.

What is a gas heat pump? Gas heat pumps (GHP) are a highly efficient technology that can provide both space heating and cooling and, can even provide hot water as well. While commercial products are available, residential gas heat pumps are not yet commercially available; manufacturers are testing units now and expect to release units as soon as Summer 2023.

What is supplemental heat? Heat-pumps rely on pulling energy from the outdoor air and concentrating it into either the home or a hot water source. However, when it gets cold outside, these systems lose efficiency and have lesser performance; therefore, a supplementary source of heat is often required. Supplementary heat is a backup system where a secondary energy source, or fuel, may be used.

- To use natural gas as a supplementary heat source for space heating, the dwelling must have a thermostat with controls set to only use the natural gas system when the outdoor temperature is 40°F or lower. [WSEC-R403.1.2]
- To use natural gas as a supplementary heat source for water heating, the heat-pump water heater must be incapable of meeting demand; for heat pumps located in unconditioned (exterior or unheated) space, the outside air temperature is below 40°F; the heat pump is operating in defrost mode; or the heat pump has malfunctioned or lost power. [WSEC-R403.5.7.1]

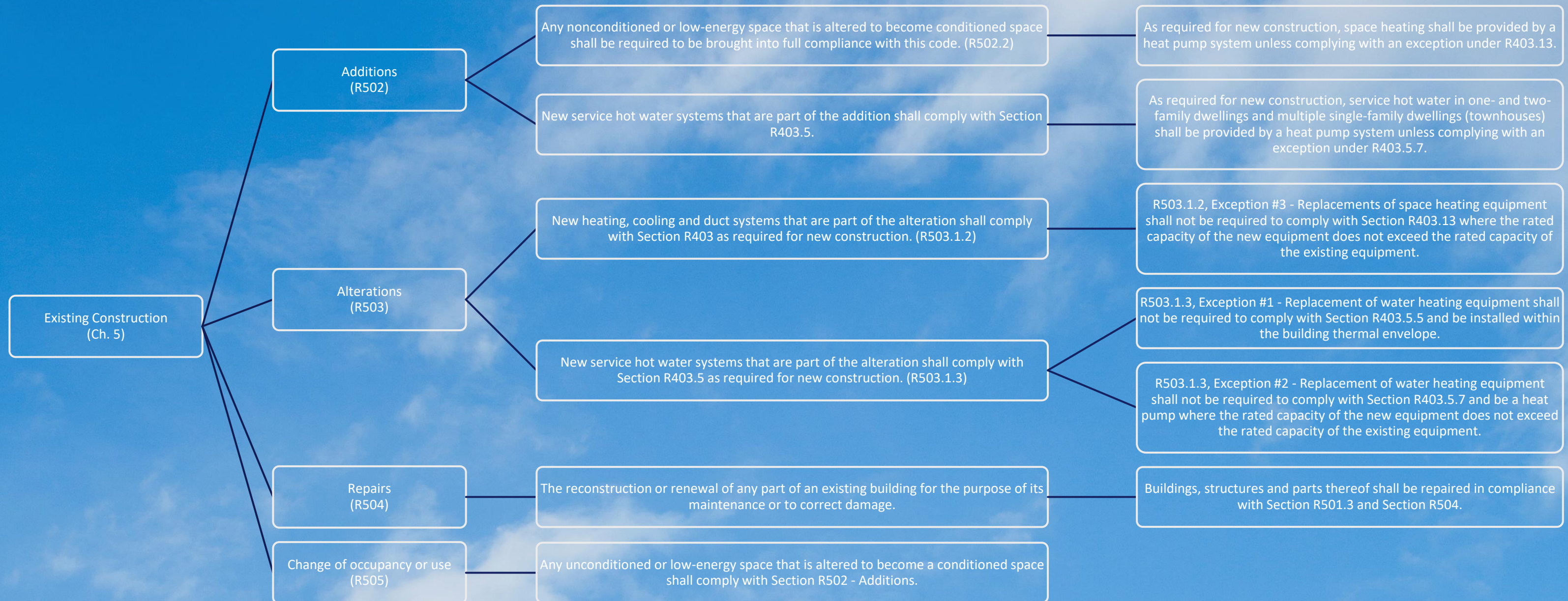
What uses of natural gas does the energy code allow? In order to best assist you, Cascade is pleased to provide the following flowcharts aimed at identifying how natural gas fits into your home and the energy code. For questions regarding these flowcharts or the Washington State Energy Code and natural gas, please contact Cascade's Building Code Specialist Ty Jennings via phone at 509-975-0154 or by email at Ty.Jennings@CNGC.com.

New Residential Construction



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Existing Residential Construction



Cascade is committed to helping our customers lower their energy usage while saving money and reducing their carbon footprint. To see current incentive offerings, visit www.cngc.com/energy-efficiency or use the provided QR code. Incentives are subject to change and are only applicable for measures approved within the Biennial Conservation Plan at the time of installation.

Energy Efficiency Phonenumber: 866-626-4479 or Email: conserve@cngc.com

Note: Backup, emergency generators are not regulated under the WSEC-R. Natural gas may be used for emergency power generation.

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