



Washington State Building Code Council

Improving the built environment by promoting health, safety and welfare

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STATE BUILDING CODE INTERPRETATION NO. 18-04

CODE: 2015 Washington State Energy Code, Residential

SECTION: R403.7.1, Electric resistance heat

R403.7.1 Electric resistance zone heated units. All detached one- and two-family dwellings and multiple single-family dwellings (townhouses) up to three stories in height above grade plan using electric zonal heating as the primary heat source shall install an inverter-driven ductless mini-split heat pump in the largest zone in the dwelling. Building permit drawings shall specify the heating equipment type and location of the heating system.

Exception: Total installed heating capacity of 2Kw per dwelling or less.

QUESTION 1: Section R403.7.1 requires homes that are electrically heated with over 2000 watts to install an inverter driven ductless mini-split heat pump in the largest zone of the home. The exception to allow up to 2000 watts of electric heat for much smaller homes without the mini-split requirement. Is our reading of this section correct?

ANSWER: Yes, if the primary heating source is electric zonal heating, it must be a supplemental heat pump for the largest zone. The exception can only be utilized if the total installed heating of the dwelling unit is less than 2000 watts.

QUESTION 2: Can a fuel fired heating system be augmented with electric resistance heat to as long as the Btu falls below the maximum?

ANSWER: Yes. The exception would only apply when electric zonal heating is the primary heating source.

QUESTION 3: Is heat required in rooms that are not considered habitable space (i.e., bathrooms, halls, storage areas, etc.)? Is a habitable space a habitable room? How does the code address heat for these areas?

ANSWER: Per 2015 IRC Section R303.9, only interior spaces (within the conditioned building envelope) intended for human occupancy are required to be capable of being heated to a minimum indoor temperature of 68°F. How the space is heated is a design decision as there is no specific code requirements as to how that heat must be provided in each space.

The system must be sized per Section R403.7.

SUPERSEDES: None

REQUESTED BY: City of Kirkland