



STATE OF WASHINGTON

# STATE BUILDING CODE COUNCIL

## Washington State Energy Code Development Standard Energy Code Proposal Form

May 2018

Log No. WSEC-R09 Revised 5/3

Code being amended:  Commercial Provisions  Residential Provisions

Code Section # **R403.7.1 Electric resistance zone heated units.**

Brief Description: Add requirement for programmable or smart heat pump thermostat to control ductless mini-split heat pump and a programmable or smart thermostat for electric zonal systems 2Kw or larger.

Proposed code change text: (Copy the existing text from the Integrated Draft, linked above, and then use underline for new text and ~~strikeout~~ for text to be deleted.)

**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, controlled by a programmable or smart heat pump thermostat, in the largest zone in the dwelling. Any rooms with zonal electric heating capacity of 2Kw or larger shall be controlled by a programmable or smart thermostat. Building permit drawings shall specify the heating equipment type and location of the heating system.

**Exceptions:**

1. Total installed heating capacity of less than 2Kw per dwelling or less.
2. Zonal electric units controlled by an occupant sensor that is capable of shutting the system off when no occupant is sensed for a period of up to 30 minutes.
3. Zonal electric units controlled solely by a manually operated timer capable of operating the system for no more than two hours.

Purpose of code change:

To provide additional savings for both heating and cooling energy in dwelling units using these systems.

Your amendment must meet one of the following criteria. Select at least one:

- |  |   |
|--|---|
| <input type="checkbox"/> Addresses a critical life/safety need.  | <input type="checkbox"/> Consistency with state or federal regulations. |
| <input checked="" type="checkbox"/> The amendment clarifies the intent or application of the code.                                     | <input type="checkbox"/> Addresses a unique character of the state.     |
| <input checked="" type="checkbox"/> Addresses a specific state policy or statute.<br>(Note that energy conservation is a state policy) | <input type="checkbox"/> Corrects errors and omissions.                 |

Check the building types that would be impacted by your code change:

- |   |  |  |
|---|--|--|
| <input checked="" type="checkbox"/> Single family/duplex/townhome | <input checked="" type="checkbox"/> Multi-family 4 + stories | <input type="checkbox"/> Institutional |
| <input checked="" type="checkbox"/> Multi-family 1 – 3 stories    | <input type="checkbox"/> Commercial / Retail                 | <input type="checkbox"/> Industrial    |



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Your organization NW Natural Phone number 503-721-2471

Other contact name [Click here to enter text.](#)

**Instructions:** Send this form as an email attachment, along with any other documentation available, to: [sbcc@des.wa.gov](mailto:sbcc@des.wa.gov). For further information, call the State Building Code Council at 360-407-9278.

## **Economic Impact Data Sheet**

Briefly summarize your proposal's primary economic impacts and benefits to building owners, tenants and businesses.

Slight upfront cost to provide and/or install a programmable or smart thermostat, but will result in additional heating and cooling energy savings.

Provide your best estimate of the construction cost (or cost savings) of your code change proposal? (See OFM Life Cycle Cost [Analysis tool](#) and [Instructions](#); use these [Inputs](#). **Webinars on the tool can be found [Here](#) and [Here](#)**)

[Click here to enter text](#)./square foot (For residential projects, also provide \$50-\$150/ dwelling unit)

Show calculations here, and list sources for costs/savings, or attach backup data pages

Internet search shows costs in this range for programmable and smart thermostats.

Provide your best estimate of the annual energy savings (or additional energy use) for your code change proposal?

[Click here to enter text](#).KWH/ square foot (or) [Click here to enter text](#).KBTU/ square foot

(For residential projects, also provide [Click here to enter text](#).KWH/KBTU / dwelling unit)

Show calculations here, and list sources for energy savings estimates, or attach backup data pages

Estimate 5%-10% energy cost savings associated with heating and cooling. Internet search shows savings higher than this for programmable and smart thermostats. This should be a conservative estimate.

List any code enforcement time for additional plan review or inspections that your proposal will require, in hours per permit application:

**All questions must be answered to be considered complete. Incomplete proposals will not be accepted.**