



April 12, 2022

Washington State Building Code Council  
1500 Jefferson Street SE  
Olympia, WA 98501

**RE: Proposed Temporary Heat Pump Efficiency Reduction**

To Whom it may Concern,

We are writing to propose a temporary amendment to the 2018 Residential Energy Code efficiency requirements for ducted heat pump systems.

We would like the Council to consider a temporary efficiency reduction be applied to all ducted heat pump split systems (below 65,000 btuh) from the current 11.0 HSPF requirement to the federal minimum of 8.2 HSPF per the 2018 WSEC Table C403.3.2(2) while maintaining the 1.5 points provided by energy credit 3.5a. We would like this to be in effect through 12/31/2023.

This proposed temporary efficiency reduction is an effort to increase the range and availability of viable ducted heat pump split systems that can be installed in new construction housing. Supply chain issues have affected every manufacturer and qualifying components and systems have become unavailable in sufficient quantity to keep up with market demand. Of the over 800,000 AHRI rated heat pump systems, only 0.64% meet the 11 HSPF requirements.

The current solution created by the State Building Code Council (emergency rule #CR-103E) allows contractors to install the outdoor condensing unit portion of heat pump systems when/if they become available after the home closes. Unfortunately, this solution does not address several key issues:

1. There is a shortage of qualifying indoor units as well and these indoor units may or may not be properly matched with whatever outdoor unit becomes available.
2. Homes waiting for outdoor units will be operating with electric resistance heat which has to be of greater capacity to accommodate the full heat loss of the home rather than just supplementing the heat pump function. This will dramatically reduce efficiency over the life of the system.
3. Manufacturers cannot confirm delivery dates for system components. Homes may be without outdoor units for a significant period of time.
4. Management of warranties for different pieces of equipment installed months apart has been a challenge.

5. The mechanical contractor responsible for installing the outdoor unit now has to contend with an occupied home, additional trips, additional labor, and inflationary cost increases (5-25% depending upon manufacturer, based upon increases this year) on equipment and materials not factored when the job was originally bid and sold.
6. Some jurisdictions are now requiring additional permits (mechanical and electrical) to set the outdoor unit which only further exacerbates the problem of unforeseen costs and labor that no one wants to be responsible for.

Our desire is to provide homes with fully functioning and efficient ducted heat pump split systems that can be installed in a timely, efficient, and sustainable manner. A temporary reduction in system efficiency requirements will help in the following ways:

1. Provides access to available equipment while manufacturers get back up to full production.
2. Systems will be sized properly to insure efficient heat pump operation.
3. Homes can be completed on time with reduced cost and waste.
4. Warranty issues are reduced.
5. Systems that can be upgraded at a later date if the home owner chooses.

With supply chain issues and labor shortages continuing to be a challenge, we are looking for a solution that allows us to continue to install quality systems that meet homeowner expectations while meeting state efficiency requirements.

Continuing the use of heat pumps will also help meet greenhouse gas reduction goals by continuing to transition homes towards electric based heating systems (R406.2). A delay until the end of 2023 would not set back our state meeting its goals and would also allow the State Building Code Council to take a look at other options during the residential energy code tag this year.

If the building code council will allow for this temporary amendment to the 2018 Residential Energy Code, our industry will have greater confidence in getting homes completed and to market on a reasonable timeline. We appreciate your consideration and help during these unprecedented times.

Respectfully,

A handwritten signature in black ink, appearing to read 'Craig Olson', written in a cursive style.

Craig Olson  
WAACCA President