



June 9, 2022

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

RE: Second Proposed Alternative to 11.0 HSPF to Address Supply Chain Issues in 2018 Energy Code

Dear Members of the Washington State Building Code Council,

Per the discussion at your last meeting on the WA ACCA proposal for reducing the efficiency requirement for heat pumps while still achieving the 1.5 energy credit, we are writing to propose a second alternative to help ease supply chain issues while still moving in the right direction on energy efficiency and greenhouse gas emissions reductions. After the last meeting, we met with several other stakeholders to address the concerns outlined during the meeting. We hope to have a discussion on this at the June 17th Council Meeting.

Our proposal following this discussions would be to adopt a change that would be valid for the duration of the 2018 Energy Code (till June 30, 2023). This change proposed would be:

Allow 10.0 HSPF systems to qualify for 1.5 credits, provided the unit is inverter driven and includes at least ONE of the following:

- **For envelope option 1.4x, a 22% reduction in envelope UA**
- **Use the appliance credit, but not require the dryer. (Or change the dryer requirement to a CEF of 3.93 or higher which would capture most, if not all, energy start vented dryers.**
- **Upgrade the Tier III HPWH to a Tier IV that is a unitary (non-split) system**
- **Upgrade the Gas Tankless water heater to a UEF of .095 or higher, or**
- **The system is listed on the NEEP cold climate ASHP database**

Once again, 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. Moving to the 10.0 would increase the number of systems available and the additional options allowed ensure that most manufacturers have a system that would work.

As we stated before, the current solution created by the State Building Code Counsel (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 a couple of 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 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 homeowner 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 and greenhouse gas reduction goals. 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 would allow for this temporary amendment to the 2018 Residential Energy Code, our industry has much higher confidence in getting homes completed and to market on a reasonable timeline. We appreciate your consideration and help during these unprecedented times.

Respectfully,

Craig Olson
WAACCA President