

2023 Department of Energy (DOE) Changes for Res. Packaged Units



eAPB2033 | November 19, 2020



2023 DOE (Dept. of Energy) Efficiency Standards Change

Beginning January 1, 2023 all new residential packaged unit systems sold in the United States will be required to meet new minimum energy efficiency standards* (See note concerning Canada). To help prepare our customers for these changes, we have summarized important information about the new regulation below.

Application and Enforcement

The new standard takes effect on January 1st, 2023, at which point manufacturers may no longer sell equipment unless it meets the new minimums. The standard is based on a 'sell by' date; therefore, equipment sold on or after January 1st, 2023 must meet the new DOE 2023 standards. Like today, the new minimum efficiencies for residential packaged units will be applied on a national basis.

What is Changing

The table below summarizes and compares the new 2023 minimum regional efficiency vs current state. It is important to note that the new DOE standards includes several changes, and has a 'double impact on equipment:

- Minimum efficiencies are changing.
- A new and more challenging test procedure was created, making it more difficult to achieve the new minimum efficiencies and reducing the ratings of existing systems. When tested using the new standard, existing equipment will not achieve the same ratings as they do today.

The new ratings will also carry new names. SEER will become SEER2, EER will be EER2, and HSPF will be HSPF2. This is because the previously mentioned test standard (the process which manufacturers must follow to test the equipment to generate system ratings) is changing. With a current range of 0.1" to 0.2", the most significant change in the new test process is that the indoor static test point is increasing to 0.5" for all tonnages, which will negatively affect SEER, EER & HSPF ratings. In addition, the HSPF formula has been modified for HSPF2 to include a load line change, 0 capacity now occurs at 55 degrees F rather than 65 degrees F, 5 degree capacity is now 1.3 times the 47 degree capacity for single and two stage products, and 5 degree capacity is now 1.02 times the 47 degree capacity for variable speed products. As a reference, today the 5 degree capacity is 0.77 times the 47 degree capacity.

2023 DOE Minimums

National

Product	Static Test Point	SEER2	HSPF2	EER2
Air Conditioner	0.5" (was 0.1"-0.2")	13.4 (was 14)		10.6 (was 11)
Gas Electric	0.5" (was 0.1"-0.2")	13.4 (was 14)		10.6 (was 11)
Dual Fuel	0.5" (was 0.1"-0.2")	13.4 (was 14)	6.7 (was 8.0)	10.6 (was 11)
Heat Pump	0.5" (was 0.1"-0.2")	13.4 (was 14)	6.7 (was 8.0)	10.6 (was 11)

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What This Means

Trane Technologies is already designing and testing residential packaged equipment and will be ready for the new standards in advance of the January 1st, 2023 implementation date. The process of redesigning our equipment for the new standards may include changes to our current equipment, and as needed, we will announce new models and families as they become available.

It is likely that rebate points across the country will change. For example, a common rebate point of a 15 SEER product may change to 14 SEER2, etc. Many utilities across the country reference the Consortium for Energy Efficiency (CEE) efficiency tiers to select utility rebate points. We are working with CEE and AHRI to define the new efficiency tiers using the new DOE test procedure and ratings. We look forward to announcing our future lineup of DOE 2023 compliant residential packaged products!

*Canada has not yet adopted similar DOE standards, however it is very likely that they will do so prior to 1/1/2023.