

# 2023 Department of Energy (DOE) Changes



eTPB2030 | November 19, 2020

## 2023 DOE (Dept. of Energy) Efficiency Standards Change

Beginning January 1, 2023 all new residential air conditioning (AC) and heat pump (HP) 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 produce equipment unless it meets the new minimums. The standard is based on a 'manufactured by' date, therefore equipment manufactured prior to January 1st, 2023 may continue to be sold and installed until old inventory is depleted.\*\* (see note below concerning the Southwest and Southeast regions for AC's) Like today, the new minimum efficiencies will be regional and will include a North, a Southeast and a Southwest region. Each region will have slightly different requirements, summarized in Figure 1 below.

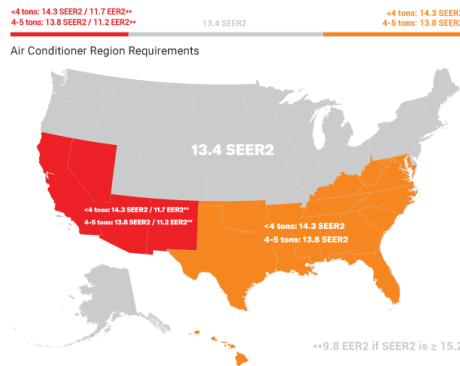


Figure 1

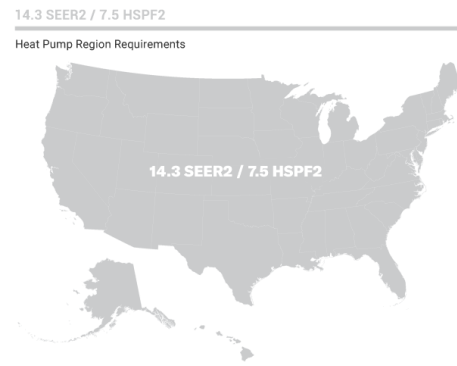


Figure 2

Figure 1. 2023 DOE Efficiency by Region

### What is Changing

Figure 2 below summarizes and compares the new 2023 minimum regional efficiency vs current state. It is important to note that the new DOE standard includes several changes, and has a 'double impact' on equipment:

- Minimum efficiencies are increasing.
- A new and more challenging test procedure was created, making it more difficult to achieve the new increased 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.

# 2023 Department of Energy (DOE) Changes



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## 2023 DOE Minimums

Product	National		Southeast	Southwest	
	SEER2	HSPF2	SEER2	SEER2	EER2
ACs < 4 ton	13.4 (was 13)		14.3 (was 14)	14.3 (was 14)	11.7/9.8* (was 12.2)
ACs 4&5 ton	13.4 (was 13)		13.8 (was 14)	13.8 (was 14)	11.2/9.8* (was 11.7)
Heat Pumps	14.3 (was 14)	7.5 (was 8.2)			

\*9.8 EER2 applies if SEER2 is ≥ 15.2

**Figure 2. Comparison of 2023 DOE Efficiency Minimums vs Today**

The new ratings will also carry a new name. SEER will become SEER2, EER will be EER2, and HSPF will be HSPF2. This is because the previously mentioned test standard, or the process which manufacturers must follow to test the equipment to generate system ratings is changing. The two most significant changes in the new test process are:

- The indoor static test point is increasing from 0.1", 0.15", 0.2" (varies based on tonnage), to 0.5" for all tonnages, which will negatively affect SEER, EER & HSPF ratings.
- The heating load line is moving, negatively affecting HSPF ratings. The new load line favors variable speed systems and will therefore have a larger negative impact on 1-stage and 2-stage HSPF ratings.

### What This Means

Trane is already designing and testing equipment and will be ready for the new standards well ahead of the January 1<sup>st</sup>, 2023 implementation date. The process of redesigning our equipment for the new standards may include changes to air handlers and coils, as well as outdoor equipment and 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 16 SEER & 13 EER may change to 15.2 SEER2 & 12 EER2. 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 product lineup of new and more energy efficient products!

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

\*\*AC's in the Southwest district (California, Nevada, Arizona & New Mexico) and Southeast district are currently NOT based on a manufactured date, and there is no sell through. We are working with AHRI to have a sell-through exception added to the rule, and feel confident that this should be accepted by DOE given they granted a similar exception for AC's for the 14 SEER DOE efficiency change in 2015.