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Energy Homes

RESNET Fact Sheet on the New DOE Residential Air Conditioner and Heat Pump Efficiency Standards

September 7, 2022

Overview

On January 1, 2023, new equipment efficiency standards will take effect for air conditioners and heat pumps. This will be the first time since 2015 that the U.S. Department of Energy (DOE) has updated the standards for air conditioners and heat pumps.

In addition to the new requirements for the manufacture and installation of new equipment, the metrics used to designate the efficiency of these systems will also be changing. This change reflects updates to the underlying testing protocols. The current SEER and EER designations will be replaced with SEER2 and EER2. The current HSPF will be replaced with HSPF2.

How does this change impact HERS Scores?

HERS Raters and HERS Modelers should not see significant changes to HERS Scores when the new efficiency standards and associated modeling changes are implemented in RESNET Accredited HERS Rating software. HERS simulation models have been accounting for the components in the new air conditioner and heat pump efficiency standards for quite some time. This was necessary to better model energy use of HVAC equipment and is, in part, the reason why there should not be a significant impact on HERS Scores when the change is implemented.

As an example, a traditional split Air Conditioning system modeled with a SEER2 of 14.25 will result in an identical HERS Index as the same system modeled with a SEER of 15*.

Similarly, a traditional split heat pump modeled with an HSPF2 of 7.65 will result in an identical HERS Index as the same system modeled with an HSPF of 9*.

Modeling Note: *HERS Raters should not enter the new SEER2/HSPF2 values into current software versions as a SEER value. RESNET and RESNET Software vendors will announce when software has been updated to accommodate the new efficiency standards.*

What is RESNET doing?

An amendment has already been proposed to RESNET's Mortgage Industry National Home Energy Rating System Standard (MINHERS) that will provide a set of conversion factors for the new air conditioner and heat pump efficiency standards derived from the American Heating and Refrigeration Institute (AHRI) data.

The proposed MINHERS amendment is PDS-01, MINHERS Addendum 71, SEER2/HSPF2 Conversions. The amendment can be downloaded and commented at <https://www.resnet.us/about/standards/minhers/draft-pds-01-minhers-addendum-71-seer2-hspf2-conversions/>

This same amendment will be proposed for ANSI/RESNET/ICC 301 as part of Addendum C.