



YOUR GUIDE TO THE UPCOMING
DOE 2023 HVAC REGULATORY REQUIREMENTS



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We are providing this guide to help you and your business prepare for the upcoming 2023 regulatory requirements set by the U.S. Department of Energy (DOE). These changes will increase the required minimum efficiencies for residential and commercial HVAC equipment starting on January 1st, 2023. Our goal is to help you understand the upcoming regulation changes and facilitate a smooth transition to the DOE 2023 compliant products.

MINIMUM EFFICIENCY STANDARDS ARE RISING

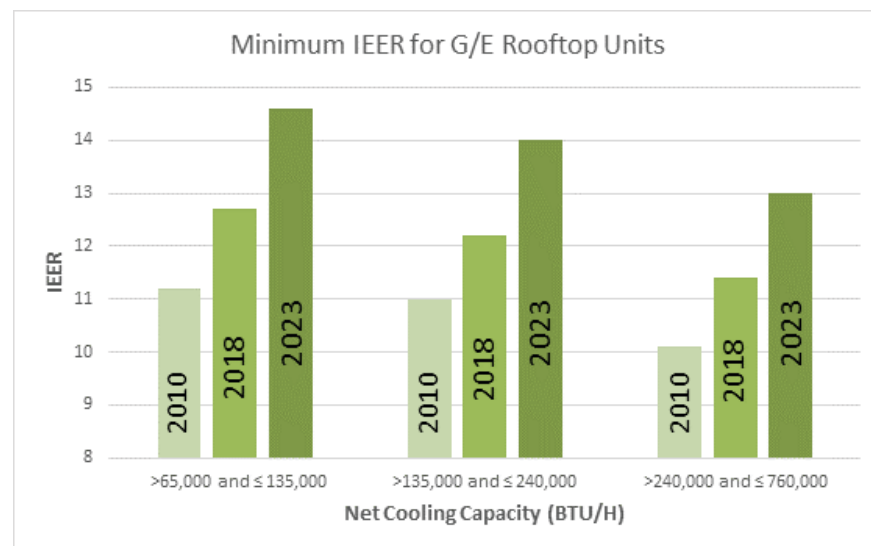
Commercial Equipment > 65,000 Btu/h

15% INCREASE

above current minimum IEER Ratings

Why is the DOE raising the minimum efficiency standards in 2023?

The DOE is responsible for reviewing and amending its energy conservation standards every six years to drive significant reduction in energy usage that is technologically feasible and economically justified. Relative to the case without amended efficiency standards, the DOE estimates the 30-year energy savings for CUAC and CUHP equipment purchased in 2018–2048 will amount to 11.7 quadrillion British thermal units (Btu). The net benefit to the U.S. is estimated to be between \$16.5 billion and \$50.8 billion.



What is Allied Commercial doing to prepare?

We have been redesigning over 75% of our commercial product offering to meet and exceed the 2023 DOE minimum efficiency standards to have compliant products starting in late 2022. We will start to provide the necessary engineering data in Q2 of 2022 continuing through the year to ensure a smooth transition to our new compliant products. Also, any rooftop unit with a gas heat exchanger with a heating input capacity greater than 225,000 btu/h will be upgraded from 80% to 81% thermal efficiency.

How can you begin to prepare?

As you begin planning for 2023, it's important to factor in the upcoming regulatory changes related to project timing, budget, and performance. We are excited to help your business navigate the upcoming regulatory changes. For more information, contact your Allied Commercial sales representative.





OTHER CHANGES COMING TO THE HVAC INDUSTRY

Current State of Refrigerants in the Light Commercial HVAC Market

Since January 1st, 2010, most residential and light commercial HVAC equipment manufactured in the United States has used R-410a, an HFC refrigerant, to replace R-22, an HCFC refrigerant. While replacing R-22 with R-410a was a step in the right direction because it eliminated refrigerants with Ozone Depleting Potential (ODP), R-410a has a Global Warming Potential (GWP) of 2088, which is slightly higher than R-22, which has a GWP of 1810.

Refrigerant Changes Coming in 2025

Refrigerant changes are coming to the HVAC industry in 2025 to help drive a more sustainable future, and the focus will be on lowering the GWP of refrigerants. The Environmental Protection Agency (EPA) defines GWP as the measure of how much energy the emissions of one ton of gas will absorb over a given period, relative to one ton of carbon dioxide (CO₂). Essentially, the higher the GWP, the more the gas warms up the Earth's climate. Across the globe, legislation such as The AIM ACT in 2020 has shifted its focus towards lowering the GWP of refrigerants used to reduce the impact of rising temperatures and sea levels around the world. It is expected that the EPA will mandate that HVAC equipment manufactured after Jan 1st, 2025 must have a GWP lower than 750.

Understanding the New 2023 Testing Standard

The new “M1” testing standard is being implemented so that equipment efficiency ratings more accurately reflect how the product is applied in the field. Compared to the current test procedure, the new procedure increases the external static pressure from 0.1-0.3 ESP to 0.5 ESP to better reflect field conditions. Heat pumps will use a more representative heating load line. Equipment measured against this new testing standard will have the following nomenclature for efficiency ratings: SEER2, EER2, and HSPF2. It is important to understand that the re-rating does not equate to a performance loss.

SELL-THROUGH AND INSTALLATION DATES BY EQUIPMENT TYPE

Packaged Unitary Rooftops

All packaged equipment is subject to the national standard and equipment manufactured prior to January 1st, 2023, can be sold-through and installed on or after January 1st, 2023. This type of equipment has an indefinite sell-through period.



3ph Split Systems (Small and Large)

All 3ph split system equipment is subject to the national standard and equipment manufactured prior to January 1st, 2023, can be sold-through and installed on or after January 1st, 2023. This type of equipment has an indefinite sell-through period and are not subject to the Regional Standards for Residential 1ph split systems.





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