



DOE 2017 EFFICIENCY STANDARDS REGULATORY LANDSCAPE

The 2017 DOE Efficiency Standards

On March 27, 2017, new regulations from the Department of Energy (DOE) requiring greater energy efficiency from commercial refrigeration manufacturers went officially into effect. The DOE directive requires the Maximum Daily Energy Consumption (MDEC) to be reduced by as much as 30-60%, as measured in kWh per day, depending on product and model. Efficiency is evaluated on the system as a whole, including: doors, lighting, insulation, controls, fans and the condensing unit; all new equipment manufactured after this date falls within the purview of this rule.

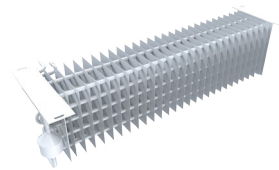
The DOE estimates \$11.5 billion in energy bill savings

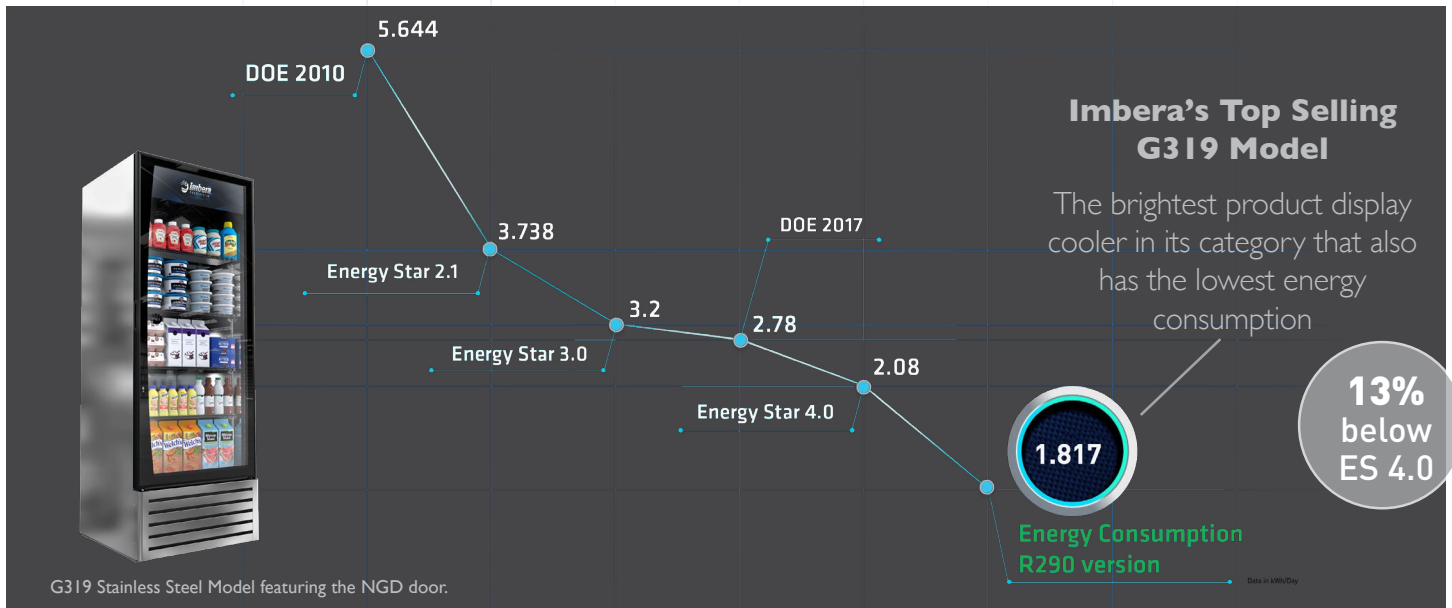
Energy Star 4.0 Rating Changes

ENERGY STAR has released new conservation standards with its ENERGY STAR 4.0 version that are lower than DOE 2017 requirements, also taking effect after the March 27, 2017. This has caused many previously listed products to undergo R&D initiatives and product redesign in order to be compliant with the new regulations. Imbera has been leading this compliance race with many models already ENERGY STAR 4.0 rated, way in advance of the 2017 deadline.

New EPA Refrigerant Requirements

The Environmental Protection Agency (EPA) is requiring that manufacturers use environmentally friendly natural refrigerant methods, already labeling many common refrigerants used today, such as R-134a, as “unacceptable”. Compliance dates for the approved natural refrigerants varies by model and/or capacity but fall within the 2018-2019 timeline. Imbera believes that new, low-GWP refrigerant alternatives will continue to play an ever-increasing role in commercial refrigeration, as a result we position ourselves at the leading edge of this transition by planning to release HC compliant refrigerants R290, R600 and R744 that meet this requirement.





TECHNOLOGY

WHY IMBERA'S NEW HC LINE?

DOE 2017 COMPLIANT & ENERGY STAR 4.0 RATED: 100% of Imbera HC models are **DOE 2017 compliant** – while only the top 20% of competitors can claim the ES 4.0 distinction.

LOWEST INDUSTRY REFRIGERANT CHARGE: Imbera's HC units feature the lowest charge, averaging 34gr to 100gr and at least **35% less than the UL safety limit** of 150gr – plus, all electronic components are spark-free (ATEX compliant) and non incandive.

HIGH EFFICIENCY: **Consuming less energy** than most other brands available, offering the lowest cost of ownership on the market.

INCREASED REFRIGERANT RELIABILITY: We have **reduced the of number of welds** in our new refrigeration lines from an average of 40 welds down to just 6 welds per unit, significantly lowering the chances for leak occurrences.

FEATURES

LOWEST NOISE LEVELS: Our new generation of HC units feature **reduced noise levels by 20%** in comparison to their predecessors.

BRIGHTEST LED LIGHTING: All NGD doors are equipped with an astounding **220+LUX of LED output** (in comparison to the industry standard of 100LUX), this is a **50% increase in brightness** from our current industry-leading 150LUX lighting standard, while still achieving the lowest energy consumption.

SLICK NEW FEATURES: Innovative design additions such as the **Next Generation Door (NGD)** option will be standard on all HC units.

