



## Energy Star: Helping You Save Energy and Money While Contributing to Your Greening Efforts!

The greening and sustainability movement is moving full-speed ahead within the foodservice industry and one area where operators can quickly get on-board with it is by finding ways to reduce energy usage. Restaurants and other facilities that have commercial kitchens, use approximately 2.5 times more energy per square foot than other commercial buildings. Or think about this related fact for a moment — industry research estimates that 80% of the annual energy consumed in the foodservice sector does no useful work! It is easy to quickly come to the conclusion that there are significant savings to be had with respect to energy!

Spearheading energy conservation efforts in this country is the U.S. Environmental Protection Agency's (EPA) Energy Star program. Energy Star was first introduced in 1992 as a voluntary labeling program designed to identify and promote energy-efficient products in order to reduce greenhouse gas emissions. Computers and monitors were the first labeled products, however over the years, products across numerous categories, including foodservice equipment, have been added to the list. To date Energy Star has approved several different product categories of commercial foodservice equipment: Fryers, Dishwashers, Hot Food Holding Cabinets, Ice Machines, Solid Door Refrigerators & Freezers, Steamer Cookers, Convection Ovens and Griddles.

### What's behind the Energy Star?

So how are the Energy Stars standards established in each equipment category? First of all, Energy Star works closely with ASTM International (American Society for Testing & Materials). ASTM has a sub-committee called F-26. This committee is made up of a representative sample of equipment manufacturers, utilities, endusers/ operators, and testing agencies. This group has two primary functions. First, they recommend to Energy Star which equipment category



should be designated to go through the Energy Star "process", and secondly, develop the testing methods for that specific category of equipment.

In any one particular equipment category all of the independent test results from the various equipment manufacturers are reviewed to see if there is a significant spread from the highest rated unit to the lowest rated unit (based upon energy efficiency). If it is determined that there is a significant spread, then the top 25% of all of the equipment tested in a particular category are studied further and used as a basis to develop the "final" test criteria.

The two primary criteria are energy efficiency and idle rate. Simply defined, energy efficiency is how much energy is absorbed by the food in comparison to the amount of energy that is actually used by a particular piece of equipment during heavy load operations. Idle rate is the amount of energy that a piece of equipment is consuming while it is maintaining or holding at a stabilized operating condition or temperature.

## What Requirements Must Be Met?

To give an example of an Energy Star category, let's take a look at fryers. Energy Star qualified fryers include both gas and electric open-vat models. In order for a gas fryer to meet the Energy Star requirements for this product category, it must have a minimum cooking efficiency of 50% under heavy load operating conditions while also meeting a

efficiency of foodservice equipment and in turn drive higher levels of profitability for your restaurant. Take for instance the steamer category. Check out steamers that use connectionless technology. They require less maintenance than their boiler-based counterparts and use less energy and water. Energy Star reports that in one side-by-side comparison between a three-pan connectionless steamer and a traditional, boiler-based steamer, the

Gas Foodservice Energy Star Equipment Category	Efficiency Rating at Heavy Load	Idle Rate	Average Energy Savings % Over Standard Products
Gas Fryers	≥ 50 %	≤ 9,000 BTU/hr.	31%
Gas Convection Ovens	≥ 44%	≤ 13,000 BTU/hr.	30%
Gas Steamers	≥ 38%	≤ 6,250 BTU/hr. (3 pan unit) ≤ 8,350 BTU/hr. (4 pan unit) ≤ 10,400 BTU/hr. (5 pan unit) ≤ 12,500 BTU/hr. (6 pan unit)	73%
Gas Griddles	≥ 38%	≤ 2,600 BTU/hr./ft.	5%

For a list of Energy Star qualified equipment, go to [www.energy.gov](http://www.energy.gov)

maximum idle energy usage rate of 9,000 BTU/hr.

The table above points out some of the Energy Star requirements for various pieces of gas equipment commonly found in foodservice operations along with approximate energy savings over “standard” pieces of equipment in each category.

So, what does this type of information mean to a foodservice operator? BIG energy savings, which translates into more profit at the end of the day *if* you use Energy Star approved foodservice equipment. Calculations have shown that outfitting an entire kitchen with a suite of Energy Star qualified commercial foodservice equipment could save operators about 285 MBTU annually, or the equivalent of approximately \$2,500. Plus you would be contributing in a very positive way to the greening culture of the foodservice industry.

## What Can You do?

There are also numerous operating practices that Energy Star recommends that will contribute to the

connectionless steamer had the potential of reducing annual water bills by \$2,000 and annual energy bills by \$3,000.

If you're not in the market for new equipment, you can still save energy and money. For example, fryers are one of the industry's most popular pieces of equipment – they are found in the vast majority of foodservice operations. Research and testing has shown that fryers tend to spend as much as 75% of their day idling. By simply cutting out four hours of idle time a day you could save around \$250 annually for each gas fryer.

As you can see, purchasing Energy Star approved equipment provides a win, win, win proposition. You will significantly reduce your energy consumption, which in turn, will reduce your energy costs which will improve your profitability. And finally, you will contribute to the industry's greening and sustainability efforts!

And oh yes, check with your local gas utility. They just might have a very attractive financial incentive in place help you to purchase Energy Star approved equipment!

