FSTC GREEN SHEET

NATURAL GAS: A Commodity You Cannot Afford to Ignore

The headlines are full of gas. First it was gasoline that caught our attention as the price of a gallon rose from an arm to an arm and a leg. Now it seems that natural gas, the once stable cousin of gasoline, has decided to join the fun and it is wasting no time in catching up. While we have grown accustomed to the whims of the gasoline market, this new development with natural gas has been a surprise to many. With the exception of one ugly price spike in early 2001, the price of natural gas has only increased about 25% over the last decade. That's why it is particularly hard to swallow the fact that natural gas has gone up about 60% in the last few months. This increase will awaken many restaurant owners to one important fact: natural gas is a deregulated commodity that is priced based on supply and demand. For many years, supply was greater than demand and the price remained neutral but all that has changed. Increased consumption, hurricane damage, and the anticipation of a cold winter have shifted the equation so that the "demand curve" is growing faster than the "supply curve" resulting in higher prices for at least the next few years. Natural gas is a commodity you can no longer afford to ignore.

TIME TO BATTEN DOWN THE HATCHES

The best way to deal with more expensive natural gas is to make sure that you don't waste it. After all, once it comes through the meter, you own it and it's up to you to use it effectively. Suddenly it is more important to turn off those back-up appliances, set your thermostats properly, reduce your hot water usage and keep an eye on your patio heaters. California's utility companies are doing everything they can to help businesses conserve energy and in the spirit of this effort, the Food Service Technology Center posted a list on their website (www.Fishnick.com) of ways that restaurants can save natural gas. Here's an example of one gas saving suggestion you may not have thought of.

THE HIDDEN THERMOSTAT

In your kitchen, every cubic foot of air that is sucked out by your exhaust hood and fans has to be balanced with replacement or "makeup" air. Quite simply, "air out" equals "air in". Some makeup air systems include only a supply fan and ductwork but many of these systems are also packaged with a gas-fired heating unit and that's where things can get tricky. Packaged makeup air units are meant to be simple and robust and they use a simple method to control the heater. Unfortunately, in this case, simple is not better and here's why. Instead of placing the thermostat on the wall of your kitchen, where it can sense how much heat your kitchen needs, the thermostat is hidden up in the ductwork, where it essentially responds to the temperature of the outside air. That strategy works fine for a warehouse but it is not ideal for a kitchen because it does not take into account the heat that is generated from all those cooking appliances. A "duct stat" that is at 72 degrees, a typical setting, will fire up the heater if the outside air temperature is less than 72 degrees- regardless of how hot or cold your kitchen is. For example, if the outside air is 65 degrees but your busy kitchen is at 85 degrees, chances are, the heater will be on. Since the appliances act like big space heaters and most of California has a very moderate climate, logic would say your kitchen needs very little if any extra heat so here is an easy strategy for lowering your natural gas bill. Find that duct stat and set it for 55 degrees. If that is too low, then raise it a bit. If you are in a temperate coastal climate like San Diego, then you may be able to turn off your makeup air heater altogether.

WHAT'S THE BOTTOM LINE?

On the Food Service Technology Center's website there is a handy tool called the Outdoor Airload Calculator that can be used to estimate how much energy might be saved by turning down the duct stat. Let's pick a hypothetical example using a 10 foot exhaust hood (3000 cfm) running 14 hours a day. We will lower the duct stat from 72 degrees to 55 degrees. At today's natural gas price of about $1.60 a therm (100,000 BTU), we will potentially save anywhere from $2,000 a year in the moderate climate zones up to $5,000 in the colder areas. Not bad for a little thermostat tweaking!

GAS PAINS

There is no doubt that the higher prices are going to make it more challenging for restaurants to make a buck but lots of natural gas is wasted in food service. Simply learning how to use your gas more efficiently will help to keep your costs under control. There was a time when fueling up your automobile was no big deal and now that tank of gasoline gets your attention. If you had to take your fryer down once a week and fill 'er up, you'd get that same feeling. It's time to treat both gas bills with equal concern.

These energy saving tips are offered by the Food Service Technology Center (FSTC), an unbiased food service resource center located in San Ramon, CA and funded by California utility ratepayers under the auspices of the California Public Utilities Commission. For more information on the FSTC and for our schedule of free energy efficiency seminars, please visit our website at www.Fishnick.com.

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