A recent update by the American Gas Association (AGA) finds an unprecedented amount of natural gas supply in the United States with experts now reporting a 39% increase in America’s natural gas estimates since 2006. This is a far cry from that of several years ago when we were looking at only a few more decades of supply. The new assessment found that the United States possesses a total natural gas resource base of 1,836 trillion cubic feet (TCF) and a total available future supply of 2,074 TCF, equaling about 100 years of domestic supply, based upon current U.S. consumption of 22 TCF per year. This great news demonstrates that our “home-grown” resources are expanding which increases the certainty that natural gas will continue to play a major role in America’s future energy plans.

Since domestic supplies of clean-burning natural gas are very abundant, and as Congress debates climate change and energy legislation, it should take into consideration these recent findings and understand that natural gas can and should be used in a multitude of applications now and in the future to reduce harmful greenhouse gases.

AGA President and CEO, Dave Parker, recently commented that our country is striving to find an affordable energy solution for future generations. Not only is natural gas abundant, but also the direct use of natural gas outshines all other applications in terms of cost and environmental footprint. The evidence clearly shows that natural gas is a win for consumers and should be a major player in the U.S. energy equation.

Just three years ago, the conventional wisdom was that U.S. natural gas production was facing permanent decline. Back then, Congress was resigned to the idea that the country would have to rely more on foreign imports to supply the fuel that heats half of American homes, generates one-fifth of the nation's electricity, and is a key component in plastics, chemicals and fertilizer. But new technologies and a drilling boom have helped production rise 11% in just the past two years, resulting in a glut, which has driven prices down to a six-year low.

These new natural gas discoveries come as oil has become harder to find and more expensive to produce. America is increasingly reliant on supplies imported from the Middle East and other regions with unstable governments. In contrast, 98% of the natural gas consumed in America is produced in North America. Although coal remains plentiful, it is likely to face new environmental restrictions when compared to the reduced carbon footprint of natural gas. When producing the same amount of energy, natural gas emits about half as much carbon dioxide as burning coal.

Market forces are already helping natural gas make inroads against coal and oil. Gas is now cheaper than coal in many parts of the country leading utilities to use more gas for electric generation. Of the 372 power plants expected to be built in the U.S. over the next three years, 206 will be fired by gas and just 31 by coal, according to the Energy Information Administration.
Appliance End-Use Efficiency

The present consumer information on residential and commercial appliances implies that the efficiency of electric appliances are better than natural gas appliances. This is misleading because it does not take into account the overall efficiency of producing and transporting the energy to the marketplace, which in the case of electricity can lead to significant energy losses. In response to this concern, the National Research Council recommended that the Department of Energy should consider gradually changing its system of setting appliance energy-efficiency standards to a full-fuel-cycle measurement, which takes into account both the energy used to operate an appliance and the upstream energy costs — i.e. energy consumed in producing and distributing fuels from coal, oil, and natural gas, and energy lost in generating and delivering electric power. This change would offer consumers more complete information on household and business energy consumption and its environmental impacts.

Full-Fuel-Cycle Efficiency

On a full-fuel-cycle basis, the direct use of natural gas for residential, commercial and industrial energy applications is far more energy efficient than using coal or natural gas to produce electricity, which then must be delivered for use in homes, businesses and industries. Full-fuel-cycle means, for example, that for every BTU of primary energy in the coal mine, only 26% - 38% of the energy value gets delivered to the end-use customer after extraction, processing, transportation of the product to a power plant, and then the subsequent conversion and distribution of the electricity to the point of use. In contrast, for every BTU of natural gas in the well, 90% of the energy value gets delivered to the end-use customer after extraction, processing, transmission, and distribution. The energy lost in delivered electricity from fossil fuels and nuclear energy is substantially greater than losses associated with natural gas delivery.

Higher Efficiency Standards

The Department of Energy (DOE) is scheduled to issue minimum energy efficiency performance standards for more than 30 types of power-thirsty appliances and equipment on which consumers and businesses depend. Ten of these standards were enacted in the Energy Independence and Security Act of 2007. The American Council for an Energy-Efficient Economy (ACEEE) estimates that these standards will save at least 1.6 percent of projected nationwide energy use annually by 2030 and reduce electricity demand by an amount equivalent to 110 medium-sized power plants of 300 megawatts each. ACEEE estimates that standards scheduled to be set on 15 appliances not covered in 2007 have the potential to save a substantial amount of energy. The energy savings would be equivalent to 2 percent of
projected residential and commercial sector U.S. electricity use, eliminating the need for 40 medium-sized power plants, and saving 340 billion cubic feet of direct natural gas in 2020. The natural gas savings alone are enough to meet the needs of 6.3 million typical households.

The Bottom Line

Increasing our energy efficiency is the fastest and cheapest way to lower the price of natural gas and reduce global warming pollution at the same time. We need an energy plan that taps into the cost reductions available from using less to do more. We can drive further for less with more efficient cars and incorporating more natural gas into our transportation energy mix. We can heat and cool our homes and businesses for less with more efficient furnaces and air conditioners. As a foodservice operator, you can produce more products for less with more efficient cooking, water heating and warewashing equipment. And, supporting legislation to curb global warming and boost investments in efficiency and renewable energy sources is necessary to move our nation swiftly toward a future that is bright for future generations, the environment, and the economy.

Natural gas currently meets 25 percent of the nation’s energy needs. And as we move toward a more efficient, low-carbon future, natural gas can play an even larger role. Smart, forward thinking policies made today will help ensure that we can cleanly operate our homes and businesses for hundreds of years to come.

To learn how GFEN can help improve your bottom line and how natural gas can play a bigger role in your business, log onto the Gas Foodservice Equipment Network at www.gfen.com.