The Natural News

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Natural Gas Remains Nation's Most Popular Home-Heat, Despite Cost Increases

Natural gas remains the nation's most popular home-heating fuel, despite recent increases in the wholesale cost of natural gas.

Consumers select natural gas heat not because of the cost, but because it is efficient, clean, reliable and performs well.

Natural gas heats more U.S. homes than all other energy types combined, according to the U.S. Census Bureau's latest (2003) analysis:

Natural Gas Is the Nation's Most Popular Energy

Energy Source	% of Total
Gas Heat	57% (natural gas 52%; propane 5%)
Electricity	31%
Heating Oil	9%
Other	2%
U.S. Total	100%

For home-heating during cold weather, gas furnaces greatly outperform heat pumps. Electric heat pumps typically perform best when the outside air is relatively warm—approximately between 45 and 50 degrees—and they lose the ability to deliver heat as the temperature drops, so if it actually gets cold outside, they lose their ability to heat.

One of the reasons why more American homes are heated with natural gas than all other energy sources combined is due to the comfort that natural gas provides. Air from a natural gas furnace is typically delivered at around 120 degrees. In contrast, air from a heat pump is typically delivered at only about 95 degrees, which is cooler than skin temperature and thus often described as feeling 'cool' or 'drafty. Amenities such as gas fireplaces can also enhance homeowners' cozy comfort. For example, it costs only 31 cents to operate a gas log set for one hour based on hearth products that burn at the rate of 25,000 Btu per hour, assuming the Energy Information Administration's 2005 average residential natural gas price of $1.27 per therm (or $12.77 per million Btus).

Annual Maintenance of Gas Appliances Recommended

Routine maintenance of a home's appliances will ensure they operate not just with maximum efficiency, but also correctly and safely. The key here is to seek a qualified and licensed contractor to install and inspect all gas appliances in a home. For instance, proper combustion and venting are important for an efficient and safe home appliance. Gas flow and mixing air contribute to proper flame shape and correct combustion. Bird or other animal nests; children's toys; and leaves, branches, and other yard debris can partially or completely block vents that can lead to inadequate venting.

One of the byproducts of burning natural gas is water vapor. Water vapor that is not properly vented and expelled outside a home can condense in the vent and lead to corrosion of the vent system. Over time, this can lead to failure of the venting system. This can introduce toxic gases into a home that otherwise would be vented to the outside air. Vent corrosion can also lead to a shorter-than- expected service life of a gas appliance.

Another big concern is carbon monoxide (CO), a colorless, odorless, and tasteless gas is formed when carbon-based fuels — such as kerosene, gasoline, propane, natural gas, oil, charcoal, or wood — are burned with inadequate amounts of oxygen, creating a condition known as incomplete combustion. There are many gas appliances in a home that require maintenance. This includes making sure there is proper combustion and venting both inside and outside a home. In the case of home gas appliances, incomplete combustion can be caused by improper installation, poor maintenance, or other appliance misuse or failure. When this occurs in a home's gas appliances, CO is produced, and this can lead to carbon monoxide poisoning.

The bottom line is this: A qualified and licensed technician is needed.

Leading the Way in Carbon Monoxide Awareness

Action News briefs like the following report incidents that are still too common: "A 30-year-old woman whose family had its power cut off was found dead Thursday after a gasoline-powered generator filled her home with carbon monoxide gas, police said."

Carbon monoxide (CO) can kill. The silent, odorless, and poisonous gas from incomplete combustion is responsible for hundreds of deaths in the United States each year. While consumers continue to learn about CO and take steps to prevent its presence in their homes and buildings, appliance manufacturers are ensuring that both their customers and the end users have safe, operating equipment that lessens the dangers of CO poisoning.

Going hand-in-hand with safe equipment is the need for a safety net. First and foremost, there is no substitute for an

annual inspection of fuel-fired appliances throughout the home. Another measure that consumers can take includes installing a CO alarm, which detects the presence of the deadly gas and warns building occupants before CO levels become harmful and can cause injury or death. Recognition of the value of CO alarms continues to grow. Several states and municipalities have mandated the installation of CO alarms in new and existing buildings. Like smoke alarms, Consumers should include a working CO alarm, which detects the presence of the deadly gas and warns building occupants before CO levels become harmful.

President's Message

Hello to everyone!! I hope that 2007 has started out well for you. I will have to admit that I am still wondering where the 1st quarter of the year went!! Well, since we are officially past March I thought I would take a look back and see what kind of winter we had in Iowa. Believe it or not, the winter of 2006-07 in total was actually 8% warmer than normal!! Sound hard to accept? That may be due to the fact that February itself was approximately 17% colder than normal!! That I am sure is easy to believe. I guess it is human nature that we clearly remember the very cold days when the wind-chill is freezing your face as you try to make it to your car, but we tend to forget the 40 degree day in January when you only needed a light coat. That said I believe it is safe to say we had some wide weather swings this past winter; sunny and warm, very cold, no snow, lots of snow, too much snow!! (I thought I might not get done shoveling). But through it all the natural gas flowed and kept houses warm and comfortable when it needed to.

In this edition there are some interesting articles on the energy industry that I hope you will review. When you read the article on the popularity of natural gas, please note that along with all of the positive attributes natural gas has, it is also the most economical energy choice too, as I illustrated in our last newsletter. Also, there is some helpful information on the Energy Policy Act of 2006 that I recommend you review. There are tax credits available for energy efficient natural gas appliances and the construction of new energy efficient homes. In conjunction with that, please make yourself aware of rebates that are available to homeowners and home builders from your local utilities. The programs can change from year to year so it is worth the effort to keep abreast of their current programs. As an example, Aquila has rebates of $1,000 available to homebuilders to build energy efficient homes that use natural gas; or $30 to the home owner to have preventative maintenance checks completed on their natural gas furnace. You can contact your respective utility for more details and they will be happy to assist you with their current programs.

As always, please feel free to provide me, the other board members, or staff with your thoughts, comments or concerns at any time, as we always appreciate hearing from you.

Sincerely,

Matt

Matt O'Reilly
INGA President

New Tax Credits Help Consumers & Builders Make Homes More Energy-Efficient

Starting Jan. 1, 2006, new federal tax credits are available to encourage consumers to improve the energy efficiency of their homes.

A variety of tax incentives designed to help existing homes use less energy was part of the Energy Policy Act of 2005, which was signed into law by President George W. Bush last August. Throughout 2006 and 2007, consumers are eligible for a 10 percent investment tax credit (up to certain maximums) for the money they spend on home

energy efficiency improvements, such as new appliances or insulation.

Due to energy-efficient appliances and tighter home construction and insulation, the average U.S. home uses 22 percent less natural gas than it did in 1980. The new federal tax credits will encourage consumers to take additional steps to save money on energy while also increasing home comfort.

For Consumers: Home Appliances *(Natural Gas and Propane)*

- Furnace or hot water boiler (natural gas, propane or fuel oil) can qualify for a credit of up to $150 toward the full purchase price, and/or $50 for a furnace with an efficient air-circulating fan.
- To be eligible, the furnace or boiler must be at least 95 percent fuel-efficient (i.e., merits a 95 annual fuel utilization efficiency, or AFUE rating).
- To be eligible, the furnace's air circulating fan must use no more than 2 percent of the total energy used by the furnace each year.
- Water heater (natural gas, propane or fuel oil) can qualify for a credit of up to $300. To qualify, the water heaters must have an energy factor (EF) of at least 0.80, which is about 20 percent more efficient than the current federal standard Only some tankless or "instantaneous" water heaters currently reach this efficiency level.

For Consumers: Home Structure

- Exterior windows (including skylights) = a credit of 10 percent of the total cost, up to $200.
- Insulation, exterior doors, or pigmented metal roofs: 10 percent of the total purchase cost, up to $500. Duct sealing and weather stripping or foam sealants may also qualify for the credit, depending on the IRS rules. The insulation, doors and windows must meet requirements of the International Energy Conservation Code, a model energy code for buildings. Metal roofs must have pigmented coatings that meet ENERGY STAR requirements.

For Builders: Energy-Efficient New Homes

For new-home construction, the Energy Policy Act encourages contractors to build more energy-efficient homes that are ready and available for use during 2006 and 2007 by offering federal tax credits for homes that meet certain efficiency standards. Homes can qualify for these credits using a wide range of energy efficiency measures. These can include: high-efficiency heating and cooling systems; better-insulated foundations, walls, and ceilings; high-efficiency windows; well-sealed framing and air ducts; and other innovative design and construction methods.

Two types of credits for homebuilders are available:

- A credit of $2,000 is available to builders who build homes (including both site-built and manufactured homes) that are projected to save at least 50% of the heating and cooling energy of a comparable home that meets the standards of the 2004 International Energy Conservation Code. Building envelope improvements (windows, doors, insulation, etc.) must account for at least one-fifth of the 50% energy savings.
- A $1,000 credit is available to manufactured home producers for models that save 30% or that qualify for the federal ENERGY STAR Homes program.

Clean Efficient Natural Gas is Cornerstone to Solution of Climate Change Problem

Natural gas, because it is clean and efficient, can serve as the cornerstone in addressing the need to reduce greenhouse gases.

Natural gas is a premium fuel from an environmental perspective, but restrictions on access to natural gas supplies and on the pipelines and infrastructure needed to deliver it are limiting the ability to fully use this fuel for optimum environmental gain. These restrictions have resulted in higher and more volatile natural gas prices, pushing some consumers to less environmentally-attractive competing energy forms.

In light of an ongoing failure to increase access to domestic natural gas supplies, the U.S. must adopt an energy policy that promotes diversification of electricity generating sources, including increased use of nuclear, Integrated Gasification Combined Cycle (IGCC or others "clean coal"), wind, solar and other sources. Policymakers must provide energy utilities the opportunity to make greater use of domestic resources to make meaningful advances in addressing climate change," he said. AGA released a set of "Climate Change Principles" that spelled out its position on the role of natural gas in addressing climate change. The Principles are summarized below:

1. Reasonable and responsible federal action to reduce greenhouse gases is warranted and must be developed in concert with national energy and economic policies and goals;

2. In order for natural gas to fully contribute in terms of reducing greenhouse gas emissions, natural gas supplies must be increased;

3. All sectors of the economy should contribute to reducing greenhouse gas emissions in a manner consistent with that sector's contribution to the problem and its economic impact; therefore a uniform program for all sectors may not be desirable;

4. High efficiency end-use natural gas applications should be the cornerstone of any greenhouse gas emission reduction program;

5. A diverse mix of low greenhouse gas-emitting energy sources including solar, wind, clean coal and nuclear power, should be promoted for new and existing electricity generation facilities;

6. Climate change mitigation actions should be carefully constructed so natural gas can continue to be part of the solution to the problem; and

7. Any emission reduction program should focus on energy consumers and/or producers, not on local distribution companies.

Get Going With Gas
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Editorial

The Iowa Natural Gas Association (INGA) in partnership with Alliant Energy, Aquila and Mid American Energy has offered seminars around the state on the 2006 National Fuel Gas Code. This activity is to assist the dealers and installers of Natural Gas to be aware of the safety code for the installation of gas piping and appliances.

The National Fuel Code was adopted by the State of Iowa in 1999 and is the safety code the installers need to follow for the piping and installation of appliances from the point of delivery (meter) of the natural gas to the business or residence. This is the minimum safety code as many of the "Authorities Having Jurisdiction" such as local code boards and inspectors may have additional more stringent code requirements that need to be followed.

Most of the seminars were very poorly attended by the dealers and installers of natural gas. We are not sure of the reason other then they must be very complacent and unconcerned about the requirements they need to follow. These safety codes are meant to protect the public and themselves from damage and injuries with the use of Natural Gas.

The National Fuel Gas Code is developed by a joint effort of the National Fire Protection Association and the American Gas Association. The manual is redone on a 3-year cycle and all users and installers have the opportunity to submit suggested changes as new products, process, etc become available.

As a dealer or installer of natural gas, you are the experts in the field and must be aware of all the dangers and processes that are needed to keep all of the installed systems safe. This is for now and in the future as experiences may indicate a failure in some of the practices that we presently are using.

If you every get involved with an incident that has caused damage, injuries or even death, you must be aware of the safety codes that you are suppose to be working with. In a court of law or a deposition for a damage case, one of the first questions will be "What are the safety codes that you work with, how are you aware of them, and how do you train your employees to know the safety codes". Some of the dealers that did attend had never seen the Natural Fuel Gas Code Manual.

One of the communities where we held a seminar we had 5 representatives from the local city codes enforcement office. They indicated the importance of the code information and could not understand why there was not a single dealer/ installer from their community in attendance. They expressed a very deep concern because they see many violations in the code in their daily activity.

The INGA is here to assist the dealers and want to help them be aware of the safety codes. We have manual available from the office and are available to visit with or make presentations to any group of dealers and installers in the state of Iowa. We are concerned as the industry has had a good safety record and we want to be a part of continuing to keep that record going in a positive direction. However, we cannot help those who do not want to be helped. It is your business, your life, but you are also being depended on by the public in performing a safe and professional job in your day-to-day activities of working with the potential hazards of natural gas.

Since the threatening weather season is upon us, here is a quick quiz for you...

During a Tornado, the Safest Spot in a Building is the SW Corner?? True or False?

The SW corner of a basement or building is no safer than any other part. The logic behind this myth is that tornadoes usually blow in a Southwesterly direction. The thinking is that debris would blow away from the SW corner, landing in the other areas of the building. Tornadoes do not blow in a straight line, they can come from all directions and change course many times during a short period. Tornadoes arrive from all directions

In a basement, the safest spot during a tornado is under a sturdy workbench, mattress, or other such protection - and not under heavy furniture or appliances resting on the floor above.

Another commonly held tornado safety belief is that windows should be opened to equalize pressure. This too is a Fable. Opening windows to relieve wind pressure of more than 100 pounds per square foot is not going to be effective. The more pressing need is to protect yourself from the flying debris that results from a tornado with winds of 100-200 mph moving at 60 MPH.

For more information on Tornado Safety, go to the FEMA Web site at: www.fema.gov/hazard/tornado/index.shtm.