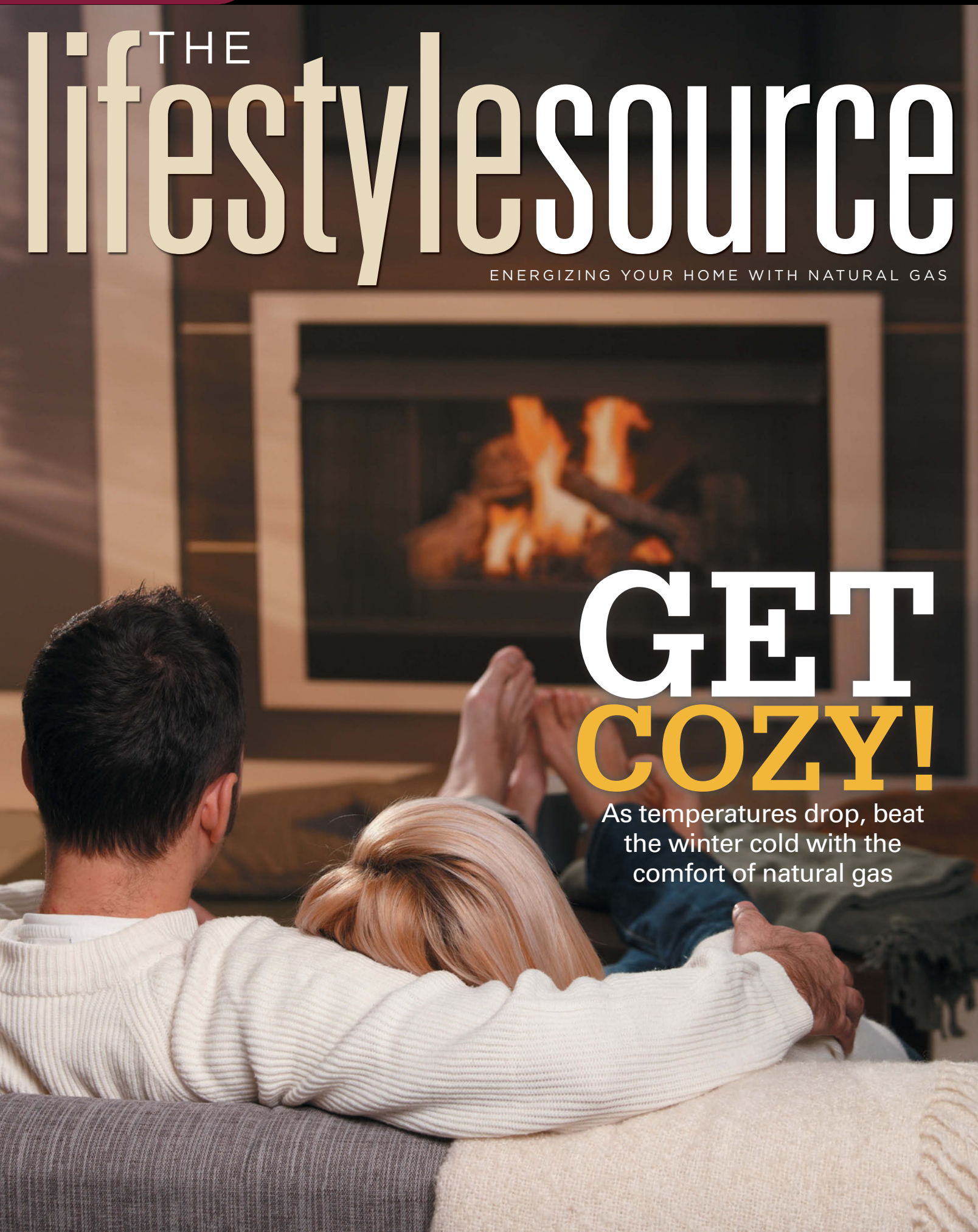
WINTER 2013 | VOL. 1, ISSUE 1

NOW WE ARE COOKING—WITH NATURAL GAS! | HOME FUEL ADVANTAGE

THE lifestylesource

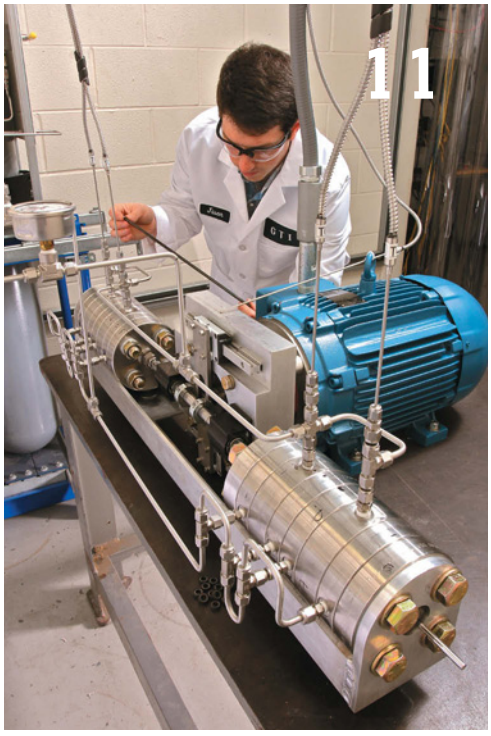
ENERGIZING YOUR HOME WITH NATURAL GAS



GET COZY!

As temperatures drop, beat the winter cold with the comfort of natural gas

WHAT'S INSIDE



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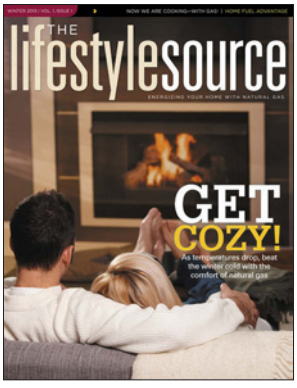
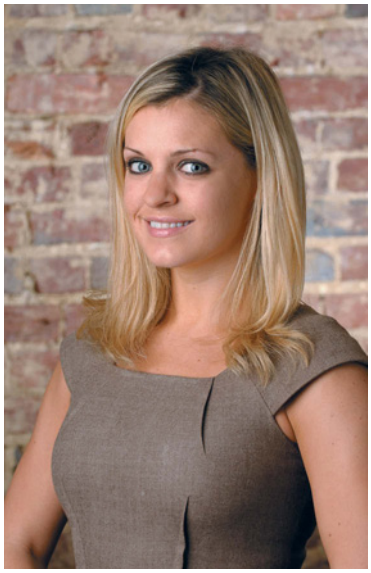


Baby, it's cold outside. As technology—and home comfort—evolves, more and more people want to cancel their reservations, pop in a movie and curl up by the fireplace. In this issue of The Lifestyle Source, we'll show you how to turn your house into a winter sanctuary.

FEATURES

DEPARTMENTS

MISSION: To provide customers with a comprehensive publication on the uses, benefits, safety and policies of American natural gas.



AUDREY ANDERSON

An exciting time to be a natural gas customer

We've published The Lifestyle Source to be a resource on how to make natural gas a part of your home or business.

THANK YOU FOR READING THE INAUGURAL ISSUE of The Lifestyle Source!

This is a very exciting time to be a natural gas customer. Over the past few years, natural gas has been found in abundant supplies across the United States, raising its profile as an excellent domestic energy source. The natural gas industry is booming and as such, this source of energy is becoming more and more accessible and affordable to American homes and businesses.

Because of the many options and information on how everyday Americans can use natural gas, we've published The Lifestyle Source to be a resource on how to make natural gas a part of your home or business. Through this publication, your local utility shares useful information and enthusiasm on natural gas. In this winter issue, you will find articles on cooking with natural gas, natural gas vehicles, carbon monoxide safety and ways to make your home more energy efficient.

The Lifestyle Source is published by the American Public Gas Association, which represents locally owned natural gas utilities in the United States. Our members are proud providers of natural gas and ensure that you and your loved ones receive the safest, most efficient and affordable energy source.

Enjoy reading The Lifestyle Source and thank you for choosing natural gas! ◆

Audrey Anderson
Editor-In-Chief, *The Lifestyle Source*

THE lifestyle source
ENERGIZING YOUR HOME WITH NATURAL GAS

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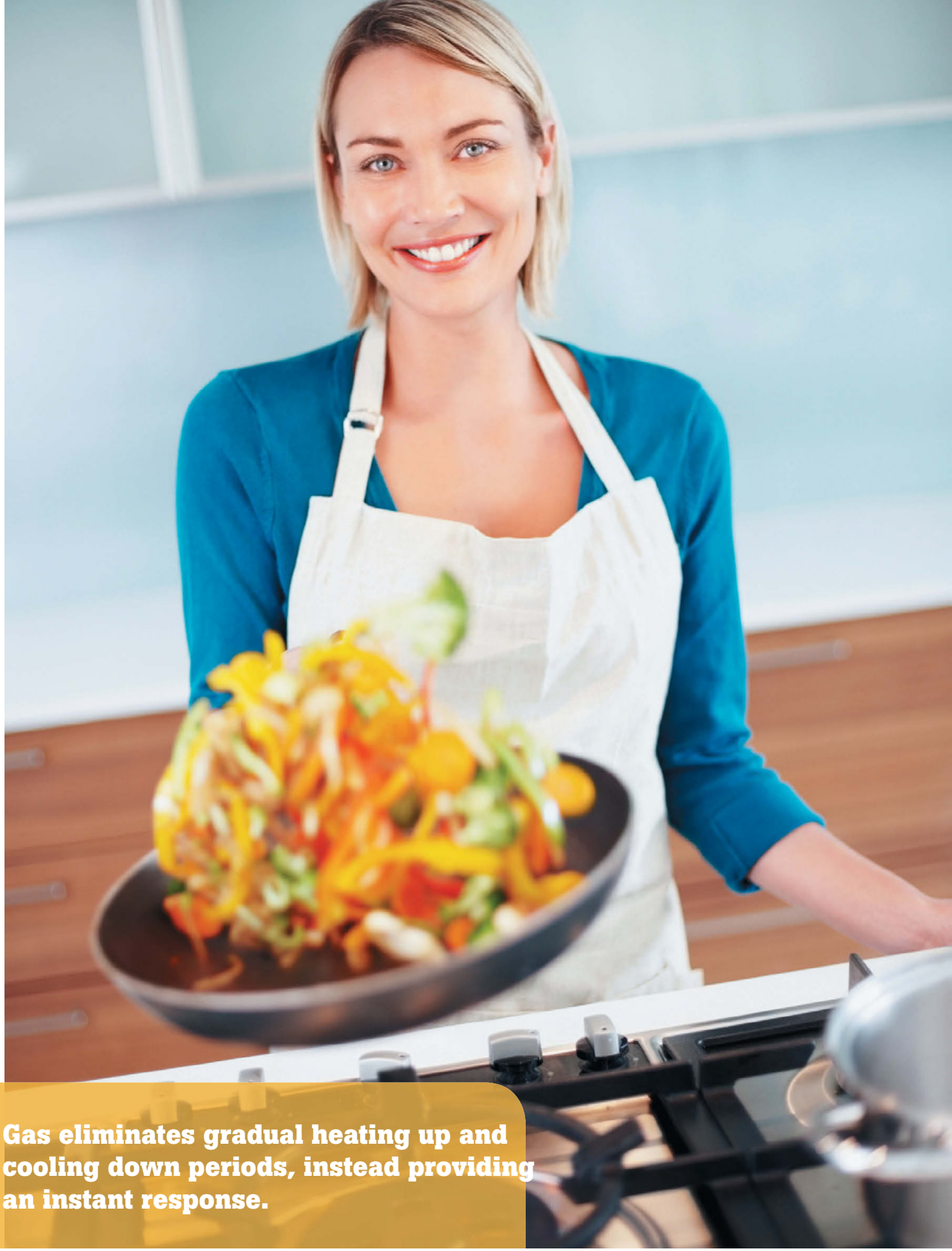


Gas eliminates gradual heating up and cooling down periods, instead providing an instant response.

Now we're cooking—with natural gas!

BY ALISON TURNER, VIKING REPRESENTATIVE FOR TENNESSEE & ARKANSAS

GAS HAS LONG BEEN THE CHOICE OF PROFESSIONAL CHEFS DUE TO the versatility and accuracy of the heat and flame. Today's home chefs can also prepare gourmet meals and impress family and friends with the wide choices in gas products for the kitchen. The range, or cooktop, is by far the most important appliance in the kitchen. Gas cooking offers many advantages over other fuel sources including heat control, accuracy, energy savings, function and the ability to produce restaurant quality foods at home.

A QUALITY COOKING EXPERIENCE

Higher BTUs and low simmers offer the home chef the ability to sear food at high heat and, with the turn of a knob, reach a low simmer on demand. Gas eliminates gradual heating up and cooling down periods, instead providing an instant response. The beneficial low simmer allows the home chef to simmer for a long period of time without the fear of burning or separation of sauces, soups and delicate food items. High BTUs are a must for searing, caramelizing and blackening meats and vegetables on the cooktop. Residential professional ranges and rangetops, such as Viking, offer high BTU outputs up to 18,500 for quick boils for large pots and canning. These high heats cannot be achieved without a flame. It simply burns hotter.

Gas ovens give the home chef the opportunity to produce the type of results restaurants achieve through use of a Salamander broiler. The gas oven's infrared broiler creates heat up to 1,500 degrees for sears, thus making broiling, roasting and oven grilling ideal in the home. Gas roasting uses natural convection, which cooks meat evenly on all sides—not just the top and bottom. Heat surrounds the meat, giving the holiday turkey a golden glow and crisp skin, and making you the star of the holiday dinner!

SAFE, RELIABLE AND AFFORDABLE

Gas cooking has come a long way. An entire industry of professional and residential equipment has been built on gas and its benefits. And now, these pieces of equipment are available to the everyday homeowner. Gone are the days of pilot lights and the smell of gas in the kitchen. Today's gas appliances have electronic igniters and automatically reignite, taking away any fear of danger in the home. These features also contribute to the "green" aspect of cooking with gas. Gas is inexpensive and burns cleanly, not to mention cooks food fast, thus keeping the kitchen cool. Many gas appliances can be helpful during power outages, as they can be lit with a strike of a match.

Once you have made the decision to cook with gas, make sure to have the appliances installed by a certified gas installer or your local gas company. It is a good idea to have the gas company come out before the purchase to make sure you meet all the requirements of the product and to ensure an easy and uneventful installation. Gas products have specific requirements for installation and a proper installation is essential in providing the full benefit of the appliance. Now, we're cooking—with gas!

Bon appétit! ◆

Winter Minestrone with Pesto Croûtes

INGREDIENTS:

2 tbsp olive oil
1 onion, chopped
Streaky bacon, chopped
2 large carrots, chopped
2 sticks celery, chopped
1 medium potato, chopped
2 garlic cloves, finely chopped or crushed
1 can tomatoes, chopped
1 lb vegetable stock (from granules or a cube)
2 tsp chopped sage leaves, or 1 tsp dried
A few cabbage leaves, shredded
1 can haricot beans
A handful of chopped parsley

PESTO CROÛTES:

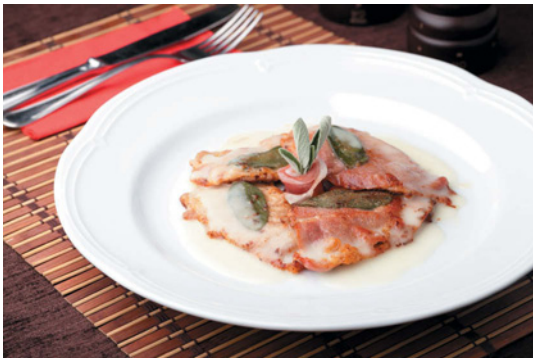
Slices of French baguette
3 tbsp olive oil
1 tbsp pesto

1) Heat the olive oil in a large pan, add the onion and bacon and fry for about 5 minutes until the onion is starting to brown. Tip in the carrots, celery, potato and garlic; stir well and cook for a few minutes.

2) Add tomatoes, stock and sage, and bring to the boil, stirring. Reduce heat to simmer and cook partly covered for 30 minutes, stirring in the cabbage after 15 minutes. Drain and rinse the beans and add to the pan with the parsley. Season and serve with pesto croûtes.

3) To make pesto croûtes: Cut 3–4 slices of French baguette into 2 cm chunks place in a pan. Mix the olive oil and pesto, then add to the bread, tossing it with your hands until the croûtes are evenly coated. Bake in a moderate oven for about 10 minutes until crisp.

Recipe from Good Food magazine, February 2006.



Chicken Saltimbocca Bruschetta

INGREDIENTS:

3 chicken breasts
1/2 cup onions, diced
1/2 cup tomatoes, diced
1/2 cup sweet peppers, diced
2 cups mushrooms, sliced
2 garlic cloves, smashed
1 bunch basil, diced
Olive oil
1/2 cup prosciutto, diced
1 small jar of capers
2-3 cups of wine
4 tablespoons butter

BALSAMIC GLAZE

1) Trim and fillet your three chicken breasts in half, leaving six thin breasts. Pan sear at high heat until golden on both sides. Do not completely cook through.

2) Set the chicken to the side and add the onions, garlic, prosciutto, peppers and tomatoes to the hot pan. Allow these to cook down, stirring regularly.

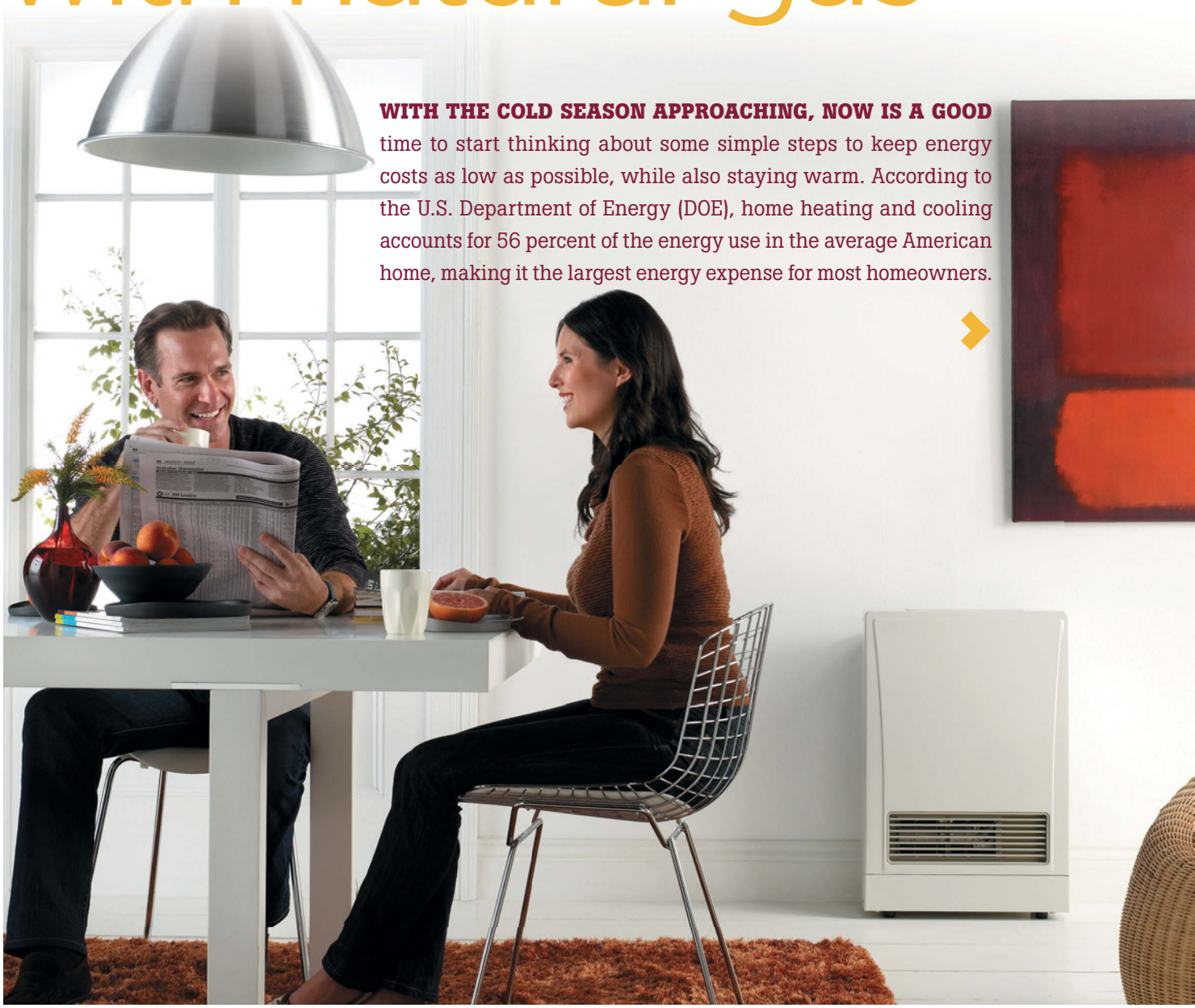
3) Add all the remaining ingredients, except for the wine, and cook for another 3–4 minutes. Pour the wine over the mixture and cook for another 8–10 minutes.

4) Finally, place the chicken breasts into a roasting dish and cover your sauce mixture. Roast for an additional 20 minutes at 375 degrees.

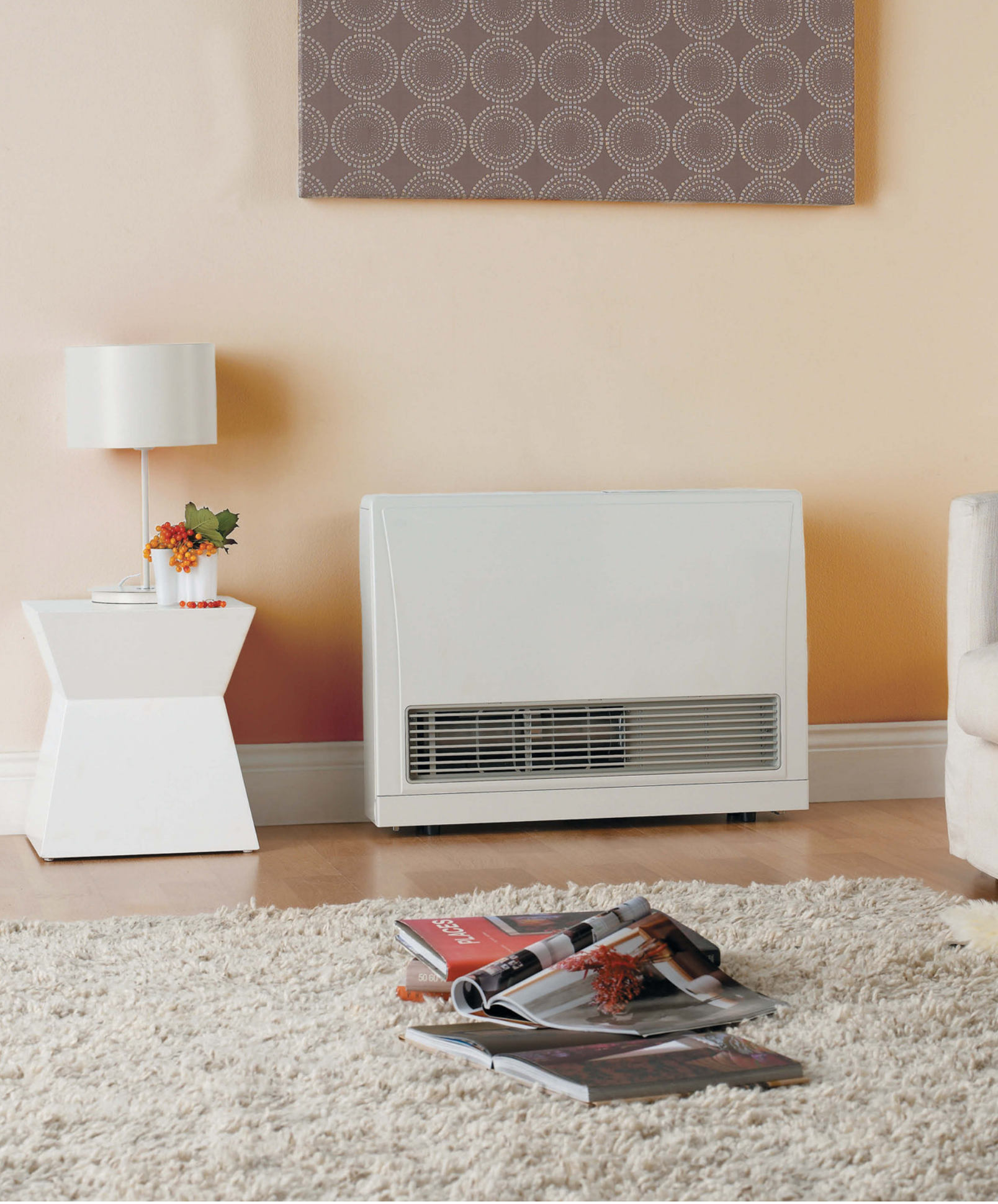
5) Drizzle with a balsamic glaze or reduction, and enjoy on bruschetta or alone.

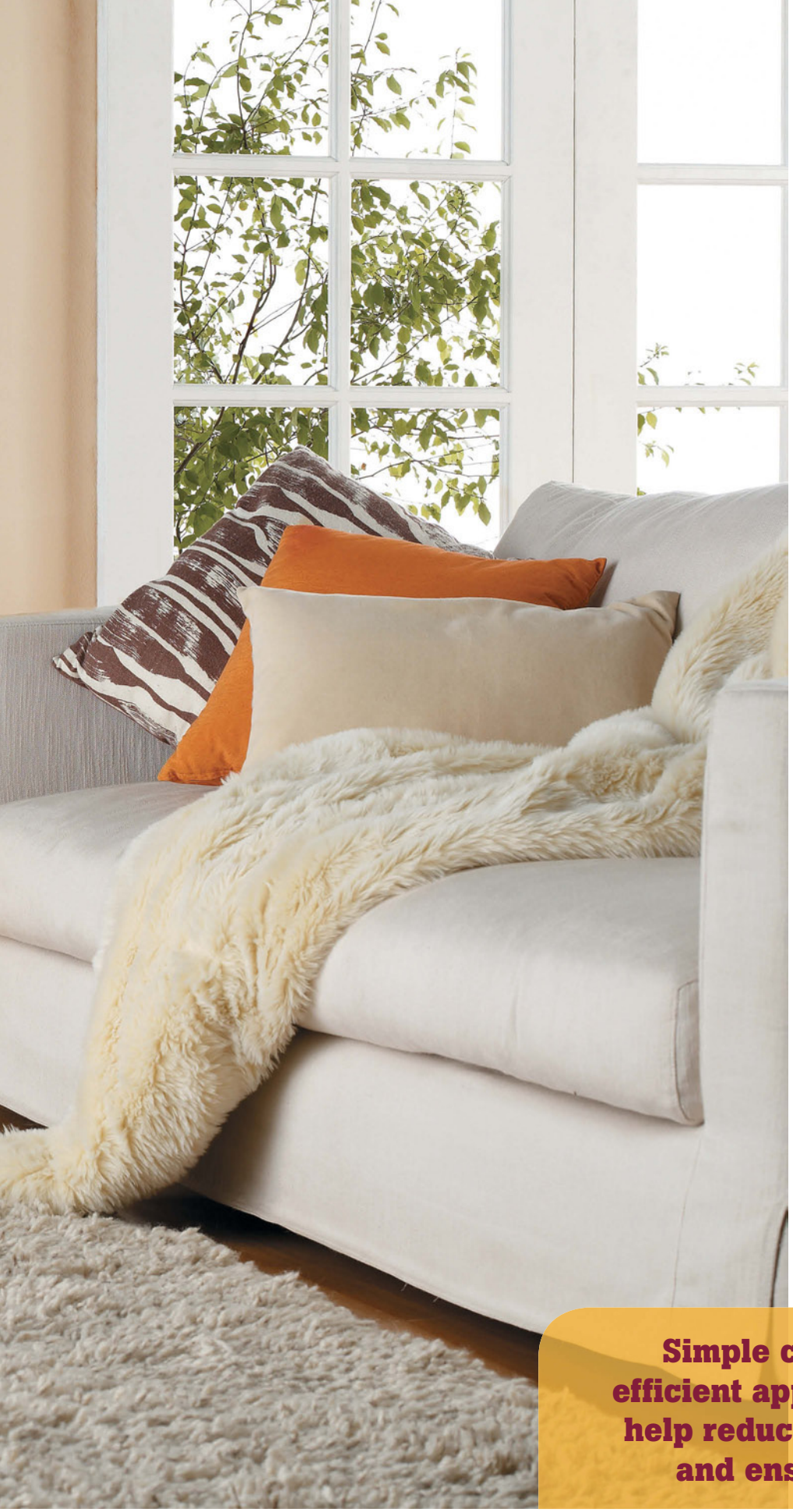
Winter warmth with natural gas

BY MIKE PEACOCK,
RINNAI AMERICA CORPORATION



WITH THE COLD SEASON APPROACHING, NOW IS A GOOD time to start thinking about some simple steps to keep energy costs as low as possible, while also staying warm. According to the U.S. Department of Energy (DOE), home heating and cooling accounts for 56 percent of the energy use in the average American home, making it the largest energy expense for most homeowners.





That being said, simple changes and energy efficient appliance options can help reduce your heating bills and ensure ample comfort.

HANG INSULATED CURTAINS

Selecting insulated curtains—preferably those that include acrylic or high-density foam insulation and reflective film—can help reduce drafts and heat loss in your home. And, as an added benefit, insulated curtains can also help block sound. Once adorning the windows, make sure the curtains are open during the day to allow as much sun, and therefore heat, into the house as possible. Draw the curtains at night to retain as much of the heat as possible.

INCORPORATE A DIRECT-VENT WALL FURNACE

Another option is to incorporate a natural gas-fueled direct-vent wall furnace, which is capable of heating up to 1,200 square feet of space. Direct vent wall furnaces differ from conventional heating systems because the units do not rely on ductwork to distribute heat. Instead, the furnaces operate by dispersing warm air directly from the base of the unit. This creates a more consistent and comfortable room temperature and reduces troublesome cold spots. Direct vent wall furnaces can also serve as a supplementary heat source for basements or rarely used

Simple changes and energy efficient appliance options can help reduce your heating bills and ensure ample comfort.

By reversing a fan's blades to a clockwise direction, hot air is forced downward toward the room creating a more comfortable environment with better heat circulation.

spaces, such as guest rooms, therefore, reducing the demand placed on the central heating system.

INCORPORATE CEILING FANS

Typically, individuals use fans to cool off, but by reversing the fan's blades to a clockwise direction, hot air is forced downward toward the room. This creates a more comfortable environment with better heat circulation and assists in eliminating pesky hot and cold spots.

CLOSE THE FIREPLACE DAMPER

A traditional fireplace should not be used as an extra heat source. A fireplace allows heated air to escape out of your home, causing your furnace to work overtime. Be sure to keep the fireplace damper closed unless a fire is burning, as it also allows warm air to escape through the chimney. Finally, seal the opening of the fireplace if you don't plan on using the fireplace at all.

UPGRADE YOUR WATER HEATER

Sometimes, the only thing that gets you out of your warm bed during the winter months is knowing that you have a hot shower waiting for you. But what if you got out of your warm bed and jumped into the shower only to learn someone had used all the hot water? Not to mention water heating bills can really add up during this time of year! If your home is equipped with a tankless water heater, running out of warm water is never a problem. Because tankless water heaters operate only when the need for hot water is detected and shut down when the demand for hot water ceases, they use less energy—in some cases up to 40 percent less energy—than tank-style water heaters and produce an endless supply of hot water. And speaking of energy, water heaters are the second-largest energy user in homes and account for more than 14 percent of national residential energy consumption.

According to energystar.gov, ENERGY STAR®-qualified tankless water heaters, save an average family more than $100 on their utility bill per year compared to a traditional tank-style water heater. Larger families can save even more. Natural gas tankless water heater systems have an Energy Factor of .82 to .96 and typically have a life span of up to 20 years, making them a wise long-term investment. And, unlike some sustainable products, when homeowners opt for a tankless water heater, they don't have to sacrifice luxury in order to save energy.

INSTALL A PROGRAMMABLE THERMOSTAT

A programmable thermostat allows you to "set it and forget it" based on your normal activity patterns and when you and your family are home. Per DOE, turning your thermostat back 10–15 degrees for eight hours can save 5–15 percent a year on your heating bill.

AIR SEALING IS A MUST

Air sealing is one of the most cost-effective upgrades and makes the home more energy efficient and comfortable. This is especially true for homes more than 10 years old, which usually have major air leaks in the living spaces and building shell. Even the most efficient heating and cooling systems can be ineffective and expensive if they're blowing air right out of the home. Consult a professional to ensure proper air ventilation. While air leaks are bad, if a home is sealed too tightly, unwanted moisture can get trapped inside, often leading to mold growth, which can pollute interior air.

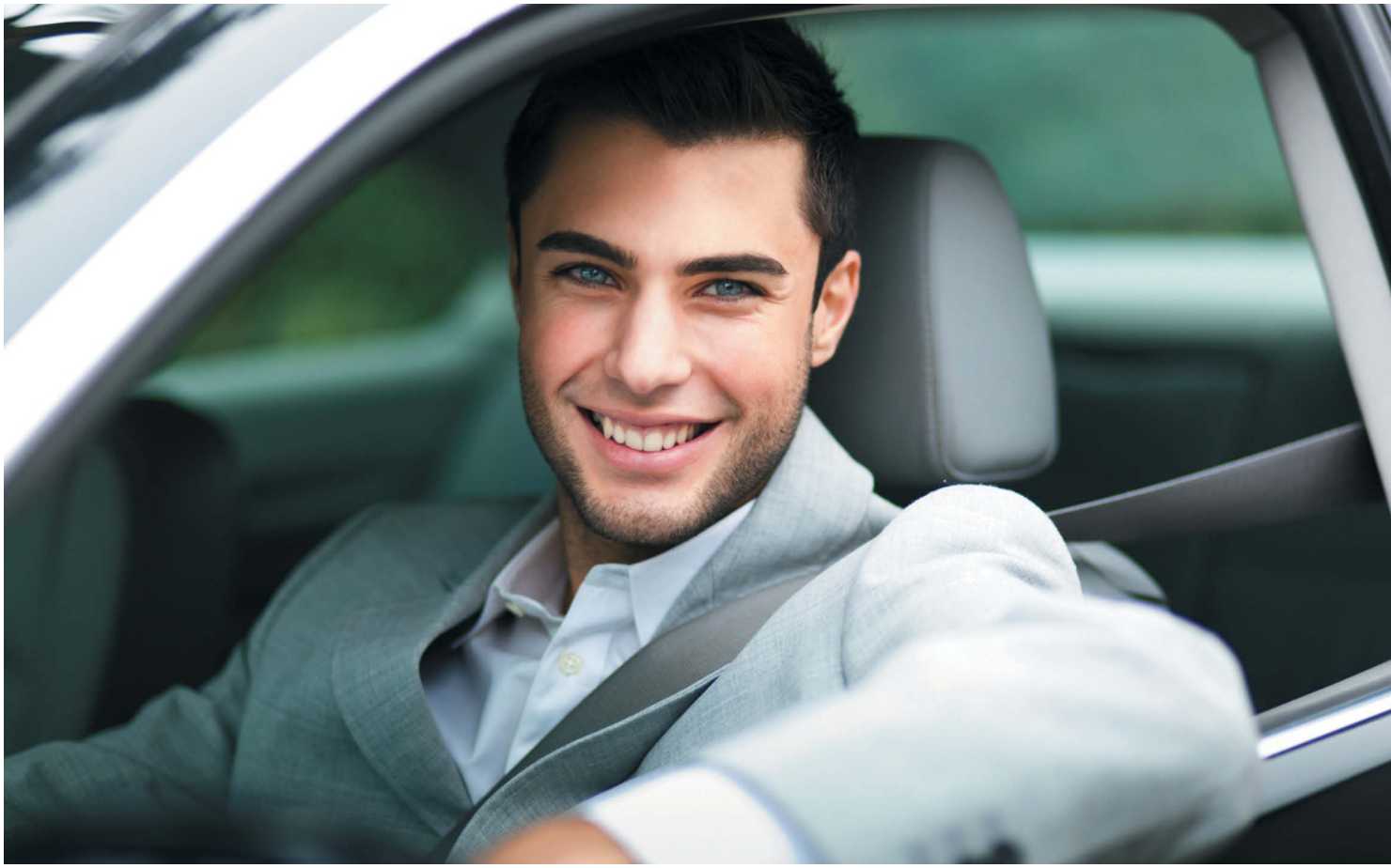
Keep these practical tips in mind as winter approaches and enjoy the impact they have on both your wallet and your living spaces.

If your home is equipped with a tankless water heater, running out of warm water is never a problem.

Home fuel advantage

How new technology promises to spark NGV ownership

BY THE GAS TECHNOLOGY INSTITUTE



ACCORDING TO THE U.S. DEPARTMENT OF ENERGY (DOE), NATURAL GAS VEHICLES (NGVS) ARE "a good option for high-mileage, centrally fueled fleets that operate within a limited area."[1] It stands to reason, then, that NGVs would also be a smart option for consumers. After all, they can primarily run on compressed natural gas (CNG), which burns cleaner than gasoline and reduces tailpipe emissions by up to 95 percent.

The hope is to provide consumers with an easy-to-install wall unit that can plug into a standard electrical outlet and dispense natural gas from the same pipelines that deliver the natural gas used to heat our homes.

"Conventional approaches use four stages of compression, each with its own piston, crankshaft bearings and other moving parts that add to the complexity of the system. What we're doing is stacking these compression stages so they are integrated into one key component—and drive them with a linear motor. We take the linear motion of the motor and apply it directly, so there is only one moving part and greater simplicity." — *Jason Stair*

Natural gas vehicles can also be significantly less expensive to fuel. According to a recent "Clean Cities Alternative Fuel Price Report" published by DOE, CNG costs, on average, about $1.49 less than gasoline on a per gasoline gallon equivalent (GGE) basis.[2]

Yet, even with all the benefits that NGVs offer, consumer interest seems to be idling, in part because of the lack of natural gas fueling infrastructure. In the U.S. today, there are about 600 retail natural gas fueling stations available to the public,[3] most of which are located in Texas, California, Utah and New York.

It's a classic chicken-and-egg scenario. Until there are more ways to fuel, consumer NGV ownership is not likely to rev up. On the other hand, more natural gas fueling stations are not likely to open until there are more NGVs on the road.

AT-HOME FUELING

One solution is to provide the 65 million U.S. households that have residential natural gas service with an affordable, efficient and convenient way to fuel their NGVs right at home. Current at-home "time-fill" systems can be plugged in at night to fuel a vehicle so that it is filled and ready to go in the morning.

BRC FuelMaker, a leading manufacturer, offers a product line that includes Phill and FMQ products for home and small fleet fueling. To date, the Phill home fueling product hasn't quite taken off, due in part to the high costs involved in installing a home fueling system in this new market segment.

"There are lots of hurdles to installing home fueling units," says Jason Stair, engineer at Gas Technology Institute (GTI), a leading research and development organization serving energy and environmental markets. One hurdle is that residential natural gas is delivered at about 0.25 psi pressure and NGVs need to store CNG at 3,600 psi. So, a compressor is needed for any system designed to fuel an NGV.

REVVING UP NGV ADOPTION

In an effort to shore up consumer interest in NGV ownership, DOE's Advanced Research Projects Agency-Energy (ARPA-E) recently launched the Methane Opportunities for Vehicular Energy (MOVE) program and awarded funding for 13 research projects.

The objective of one of those projects—an award of more than $4 million to GTI and research partners at the Center for Electromechanics at the University of Texas at Austin (UT-CEM), and Argonne National Lab (ANL)—will be to investigate the potential of a more efficient and affordable compressor technology for home fueling systems. As it turns out, ARPA-E has set some pretty aggressive cost targets such as developing a $500 compressor that would result in a home fueling system that costs less than $2,000, which is about half the cost of current systems.

In order to meet those targets, the GTI team is proposing the development of a compact system that can compress natural gas using a linear motor with a single moving piston. The hope is to provide consumers with an easy to install wall unit that can plug into a standard electrical outlet and dispense natural gas from the same pipelines that deliver the natural gas used to heat our homes.

In the design stage now, the project team is working to develop a prototype in about six months and to begin testing in the field in about 18 months. "There's a lot of interest from some major commercial manufacturers," says Stair.

With the help of ARPA-E funding, as well as significant private sector funding, GTI and other U.S. research organizations are working to eliminate the technical barriers to the widespread adoption of NGVs by U.S. households. "At this point, the energy independence, environmental and consumer fuel saving benefits of NGV ownership are well understood," says Tony Lindsay, the R&D director who is managing this and other ARPA-E research projects at GTI. "With this novel approach, we are striving to make home fueling a practical and affordable option for consumers."

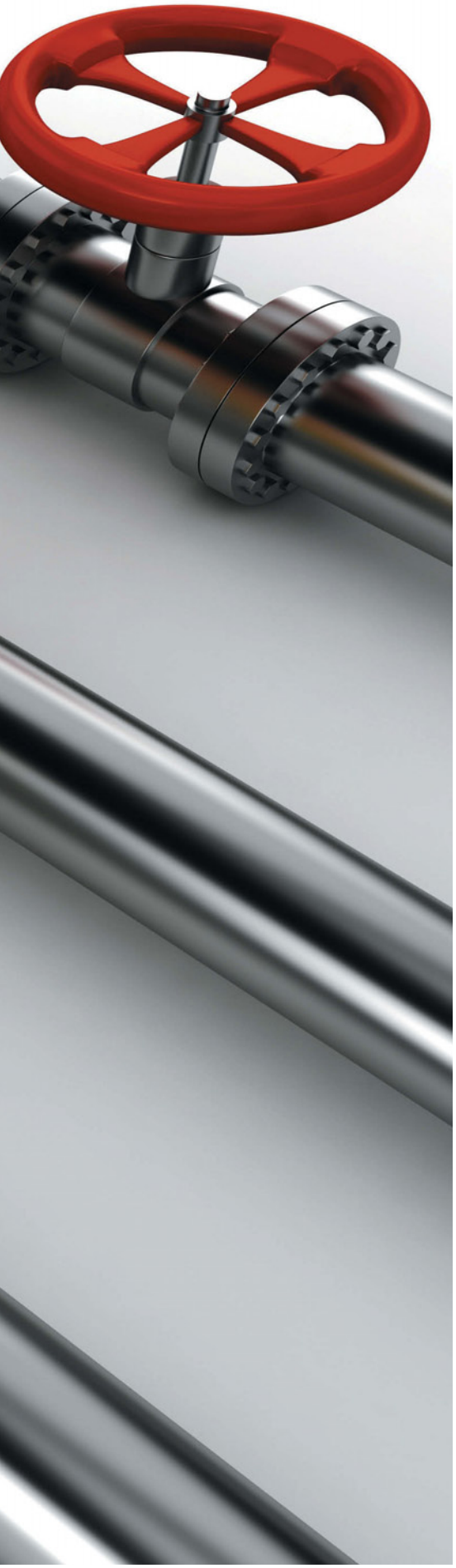
To learn more about GTI's NGV and other technologies, please visit **www.gastechnology.org.** ◆

1 U.S. DOE site: http://energy.gov/articles/photo-week-driving-force-natural-gas

2 "Clean Cities Alternative Fuel Price Report," April 2013, U.S. DOE, page 5, http://www.afdc.energy.gov/uploads/publication/alternative_fuel_price_report_april_2013.pdf

3 DOE Alternative Fuels Data Center, Natural Gas Fueling Station Locator: http://www.afdc.energy.gov/fuels/natural_gas_locations.html

Natural gas currently supplies more than one-half of the energy consumed by residential and commercial customers, and about 41 percent of the energy used by U.S. industry.



What is natural gas?

NATURAL GAS IS A RECENT BUZZ WORD NOT ONLY IN NATIONAL policy debates, but also as a hot topic for consumers. There are many beneficial, safe and useful ways that natural gas can be used in homes and businesses around the country, making it an excellent source of energy. It is domestically produced and abundant, which helps our national economy and jobs. It is also a clean and efficient form of energy.

But what is natural gas, and where can you find it? Although it is a popular term, little is understood about natural gas including its development, use and benefits. Let's take a closer look at what natural gas is and how you can utilize natural gas in your home or business.

WHERE DOES NATURAL GAS COME FROM?

Natural gas is made up of hydrocarbon gases, primarily methane, naturally occurring in rock formations deep below the earth's surface. Once withdrawn from these rock formations, the natural gas then goes through a gas processing plant that removes impurities and gases like ethane, propane and butane. The natural gas is then transported to homes and businesses through an underground system of pipes.

NATURAL GAS TODAY

Today, natural gas is a vital component of the world's supply of energy. Natural gas currently supplies more than one-half of the energy consumed by residential and commercial customers, and about 41 percent of the energy used by U.S. industry. It is one of the cleanest, safest and most useful of all energy sources.

Almost 99 percent of the natural gas used in the U.S. comes from North America, while 88 percent is produced in the U.S., and 10.5 percent is produced in Canada. Because natural gas is the cleanest burning fossil fuel, it plays an increasing role in helping to attain national goals of a cleaner environment, energy security and a more competitive economy. Additionally, the 2 million mile underground natural gas delivery system has an outstanding safety record.

SAFE FOR USE

Natural gas is colorless, odorless, lighter than air, and nontoxic. Breathing natural gas is not harmful as long as there is an adequate supply of fresh air to breathe

WHY USE NATURAL GAS?

Natural gas is the fuel of choice because it is:

- **Efficient:** Natural gas takes less energy to use.
- **Clean-burning:** Natural gas emits few pollutants.
- **Plentiful:** Recent technological advances in natural gas extraction have given our country abundant supplies of fuel.
- **Safe:** Your local utility takes extreme care and caution to supply natural gas to its customers. Utilities also offer practical information for safely using natural gas in your home or business (see the safety article on page 17).
- **Reliable:** Most natural gas ranges, water heaters and fireplaces operate even during a power outage.
- **Convenient:** Natural gas provides instant heat with an adjustable temperature that can be controlled on gas cooktops, ranges and thermostats.

WHO USES NATURAL GAS?

The main groups of natural gas users:

- **Residential users** use natural gas in their homes for furnaces, pool/spa heaters, gas lights, vehicles, stoves, water heaters, clothes dryers and grills.
- **Commercial users** use natural gas in businesses such as restaurants, hotels and hospitals.
- **Industrial users** use natural gas for heating processes and as fuel for the generation of steam.
- **Electric utilities** use natural gas to generate electricity.
- **Natural gas pipeline companies** use natural gas as a fuel to run compressor units.

along with it. Natural gas by itself will not burn, but with the proper mixture of gas and air combined with an ignition source, combustion can occur.

An odorant that smells like rotten eggs is added to natural gas so that it can be detected. The odor is a warning that natural gas may be present and, if ignited, could result in personal injury or property damage.

PUBLICALLY OWNED NATURAL GAS UTILITIES

There are about 1,300 natural gas utilities in the United States. Of these, approximately 1,000 are public natural gas utilities. The American Public Gas Association represents those natural gas utilities that are publically owned, meaning they are owned by and accountable to the communities they serve. Most are small, comprised of a few hundred to a few thousand customers, but despite their size they have a huge impact on the communities they serve by providing an irreplaceable function of offering clean, affordable and efficient natural gas.

Communities who choose to have a local public natural gas utility do so as a matter of practicality and economy. Citizens recognize the need to access reliable energy; and having a local public gas utility is the best way to do that. There are many other benefits to having a public gas utility, for example:

1 Public natural gas systems/utilities are not-for-profit. They are locally controlled operations and ensure that rates remain competitive and affordable. This is especially reassuring as energy and fuel prices continue to rise and affect your family's bottom line.

2 Decisions regarding your energy needs are made locally through citizen participation instead of being made outside of the community.

3 Public natural gas utilities are directly accountable to the citizens they serve.

4 Public natural gas can play a valuable role in helping broaden the tax base and helps local dollars stay at home. They also work with local financial institutions and make purchases from local businesses. This in turn improves the local economy and creates jobs.

Safety: Carbon monoxide facts

Keep your home safe by preventing carbon monoxide build-up

CARBON MONOXIDE (CO) IS AN INVISIBLE, ODORLESS AND TASTELESS gas that can be formed when fuels like charcoal, coal, gasoline, kerosene, natural gas, oil, propane or wood are burned without a sufficient supply of air. While smoke inhalation from fires is a common cause of CO poisoning, cigarette smoke and vehicle exhaust are the most common sources of CO exposure.

Almost every combustible material produces CO, so even items like tobacco, fibers or paper produce the gas. When fuels like gasoline, coal, wood, charcoal, kerosene, propane, heating oil and even natural gas are burned in your home, it is especially important to maintain proper ventilation to ensure that CO does not accumulate.

Any fuel-burning equipment or appliances, including wood stoves, fireplaces, space heaters, barbecue grills, furnaces, water heaters, boilers or ranges have the potential to produce CO, but when natural gas equipment is installed, operated and maintained, it will not usually produce CO.

EASY WAYS TO PREVENT CO BUILDUP

- Never operate a lawn mower, grill or vehicle in an enclosed area such as your garage, home, place of business, tent or trailer—even if a door is open.
- Never leave a fire smoldering in a fireplace.

SYMPTOMS OF MILD CO EXPOSURE

- Slight headache
- Vomiting
- Nausea
- Fatigue
- Blurred vision
- Flu-like symptoms that disappear when fresh air is breathed

SYMPTOMS OF MEDIUM EXPOSURE

- Drowsiness
- Confusion
- Severe headache
- Rapid heart rate

SYMPTOMS OF SEVERE EXPOSURE

- Convulsions
- Unconsciousness
- Cardiac/respiratory arrest

- Have fuel-burning equipment checked annually by a qualified technician.
- Check frequently for visible signs of problems, such as high indoor humidity or soot collecting near a burner or vent.
- Look for a clear blue flame on your natural gas appliances. A yellow or orange flame could indicate a problem and your equipment should be checked by a technician.
- Be sure that any fuel-burning appliances are properly vented.
- Have your central heating unit checked before the heating season begins to ensure that the heat exchanger is not cracked or rusted and that the burner area is clean.
- Never attempt to heat a room with a range, an oven or clothes dryer.

When fuels like gasoline, coal, wood, charcoal, kerosene, propane, heating oil and even natural gas are burned in your home, it is especially important to maintain proper ventilation to ensure that CO does not accumulate.

Natural gas furnaces and heating products such as fireplace logs and space heaters should be inspected every year. Other appliances, such as water heaters, clothes dryers, ranges and cooktops, should be checked for proper operation every two years. Prevention is essential in dealing with carbon monoxide, and the best prevention is regular inspection by a trained service technician.

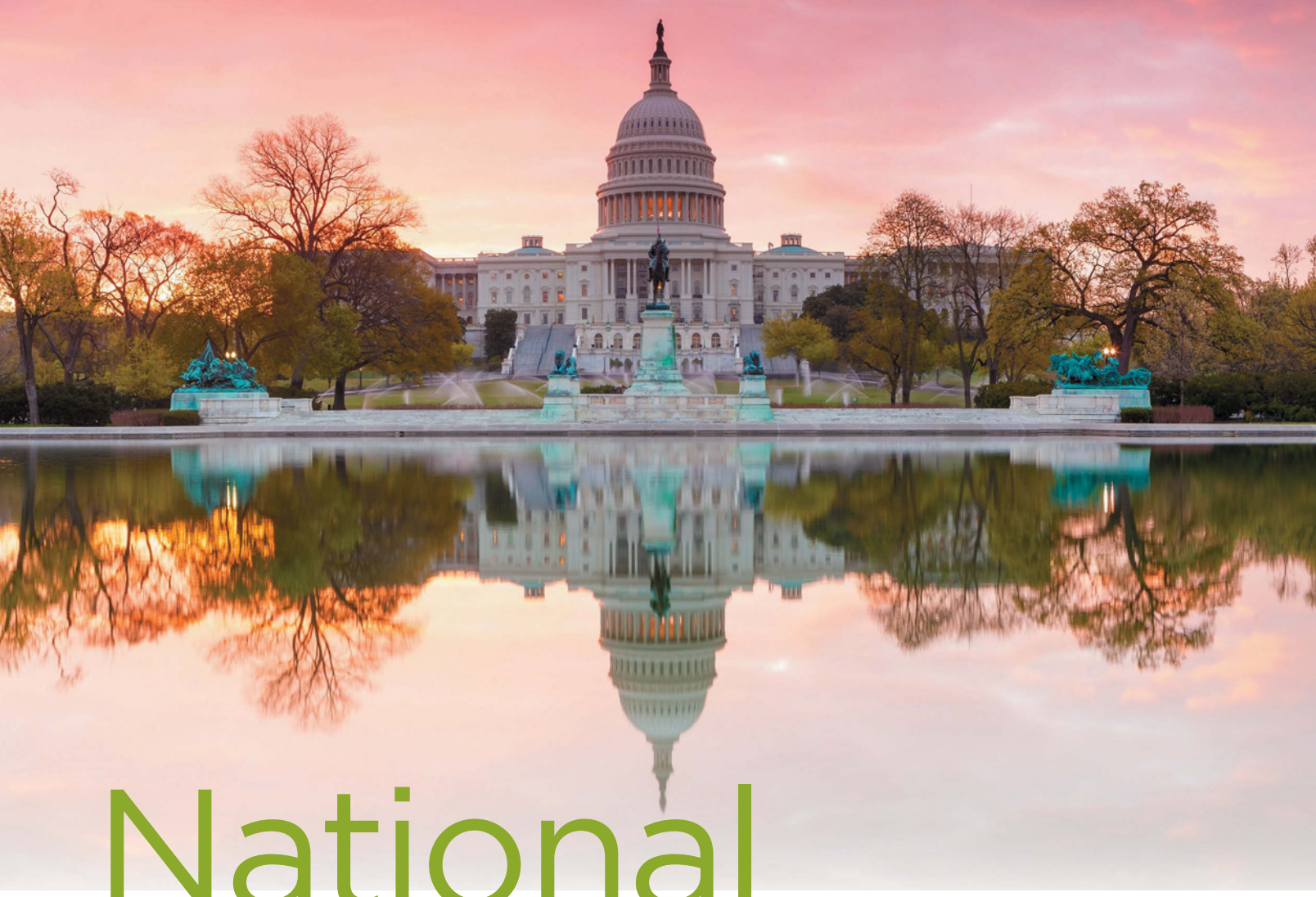
HOW DO I KNOW IF CO IS PRESENT?

Sometimes there are physical signs when CO is present in a building. These can include unusually high indoor humidity, stuffy or stale indoor air, water or soot collecting near a vent or burner and persistent heavy condensation on walls or windows. There are also physical symptoms of exposure, depending on the amount of CO in the bloodstream. The higher the concentration is, the higher the danger is. The severity of the physical symptoms will vary depending on age, general health, level of physical activity and duration and concentration of exposure. If the flu-like symptoms are not accompanied by fever, or if everyone in the family is ill, or if the symptoms disappear when you leave the house, you may have a CO problem.

WHAT TO DO IF CARBON MONOXIDE IS DETECTED?

If CO is detected, immediately move outside to fresh air and call 911. Seek medical attention if needed as well. Carbon monoxide can indeed be dangerous; but with proper precaution, you can keep you and your loved ones safe!

Thank you to Southeast Alabama Gas District for supplying much of this information.



National natural gas policymaking

AS THE ROLE OF NATURAL GAS IN OUR NATION'S ENERGY SUPPLY increases, so do national policies surrounding natural gas. At the federal level, there are several important pieces of regulation and legislation that directly impact U.S. natural gas and thus the end use customers or everyday Americans.

Recent advances in natural gas drilling have made access to domestic natural gas reserves not only possible but also extremely advantageous for the U.S., resulting in the low natural gas prices enjoyed by consumers. At these prices, consumers' energy bills are decreasing, natural gas vehicles (NGVs) are price competitive with gasoline thereby reducing our dependence on foreign oil, a manufacturing renaissance is occurring, and natural gas is on the upswing to replace coal for electric generation because of both its price and clean burning characteristics.

However, all of these benefits of affordable natural gas are threatened by efforts to export domestically produced natural gas in the form of liquefied natural gas (LNG). To date, 20 applications for the export of LNG have been filed at the

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Department of Energy (DOE) and more are likely on the way. If just these facilities alone were to be built, approximately 43 percent of our country's daily production of natural gas would be shipped abroad.

The consequences of the large-scale export of LNG are clear: increased natural gas prices for consumers, a lost economic advantage from NGVs, the end of the current "re-shoring" of American manufacturing, and increased emissions from electric generation as natural gas-fired generation would be replaced by coal harming human health and efforts to combat climate change. Currently, organizations like the American Public Gas Association advocate to lawmakers that these unchecked exports of LNG could do significant harm to American consumers.

THE FURNACE RULE

Another important national level policy affecting natural gas customers is DOE's 2011 Furnace Rule, which mandates a 90 percent efficiency standard for all new residential furnaces in the 30 northern states and an 80 percent standard in the remaining southern states. While the intent of the Furnace Rule was to increase efficiency, the practical effect would be to cause many consumers to shift from natural gas furnaces to cheaper, but less efficient, electric resistance furnaces and thereby ultimately undermine DOE's energy efficiency goals while significantly increasing consumer's heating bills.

The American Public Gas Association challenged the Furnace Rule in the U.S. Court of Appeals for the D.C. Circuit. Most recently, the court has ordered all parties to submit their arguments and the briefing will likely continue through the end of the year with oral argument being set possibly next spring. A decision in the case is therefore not likely until the middle or end of 2014.

NATURAL GAS VEHICLES

Lastly, the deployment of NGVs can enhance our national security by removing the need for imported oil from hostile or unstable foreign nations. By reducing importation of oil, which is one of the largest drivers of our trade deficit, we can improve our balance of trade and in so doing, help to protect the value of the American dollar.

One key piece of legislation surrounding NGVs is the LNG Excise Tax Equalization Act of 2013, which was first introduced in the House of Representatives by Representatives Thornberry (R-Texas) and Larson (D-Conn.) on May 30. On June 6, Senators Bennet (D-Colo.) and Burr (R-N.C.) introduced the Senate version of the bill.

Under current law, the federal highway excise tax on both LNG for use in motor vehicles and diesel are taxed on a volumetric basis at 24.3 cents per gallon. LNG is less energy dense than diesel, as 1.7 gallons of LNG equal the energy content of one gallon of diesel. Based on this fact, LNG trucks will consume more fuel than their diesel counterparts and therefore will pay more in federal highway taxes than their diesel counterpart.

This additional tax burden provides a strong disincentive for consumers to purchase the cleaner burning LNG powered truck. The LNG Excise Tax Equalization Act would seek to remedy that disincentive by taxing LNG on an energy content basis, as compressed natural gas (CNG) is taxed. Effectively, this would level the playing field between LNG and diesel and provide parity for NGVs.

It is imperative that national level policymaking takes into account the needs of American customers. As natural gas issues arise, those needs will be represented by the American Public Gas Association. ◆