

Save on Your Gas Bill

Though natural gas is a relatively inexpensive source of energy, the cost of heating your home, cooking your meals, and taking hot showers can add up to a lot over the course of a year. The good news is that a few simple steps can help to reduce your usage costs. Improving energy efficiency from natural gas is as easy as it is for any other form of heating source or energy.

What's That Smell?

Because natural gas is colorless and odorless, a chemical is added to it to ensure people can detect when there is a dangerous leak. If you ever notice its "rotten egg" smell, contact the fire department or your energy utility immediately.



No matter the source of your energy, heating living spaces is the single biggest energy expense in the average home. There are big opportunities to save money by following a few simple steps.

Turn Down the Heat

Turning down boilers or furnaces to 68°F in the winter and 78°F in the summer is the most effective way to save energy and money.

Also consider replacing old boilers and furnaces with efficient new ones. When buying, look for labels that indicate appliances have a high **annual fuel utilization efficiency** rating.

Get Smart

Newer "smart" thermostats are a great way to save money and to find out how much energy you are using and when.

Many include sensors that can detect when you are home or away, and adjust temperatures accordingly. They can also be operated remotely with wireless technology and gather data that can be sent to your computer or mobile devices.

For those on more of a budget, a programmable thermostat is another good option. This device can automatically adjust your home's temperature to save up to \$150 a year, which is close to the cost of the thermostat itself.

In the winter you can save energy by setting the temperature to that ideal 68°F while at home, and lower it when away or asleep. In the summer you can keep the house at a comfortable 78°F.

Search for the Star

Look for the Energy Star label when purchasing a new thermostat. The program currently qualifies three models that allow the setting of different schedules: 7-day, 5+2, and 5-1-1.



Monitoring & Maintenance

Regular maintenance of your boiler or furnace is essential to reducing costs. Dirt and neglect are the main causes of failure and the expensive need for replacement.

Be sure to check your appliance each year before winter sets in. Make sure nothing flammable or dangerous has been stored against it during the summer.

Turn on the boiler or furnace for a few minutes to make sure it is working. It's better to find out early and avoid the rush on repair technicians when the weather starts to get cold.

Keep It Clean

Clean the registers for forced-air heating systems or the radiators for boiler-based systems. Inspect furnaces to look for any soot or combustion residue.

Call an Expert

It's worth calling a professional to do a regular checkup. Though these visits can cost a lot, they will save you money in the long run by making your system efficient enough to reduce your bills by up to 10 percent.

The advantage of a natural gas-powered system is that it only needs a service every two years, compared with every year for oil and kerosene systems.



Heating needs can be reduced through a number of improvements you can make to your home. These will help to reduce your natural gas bills.

Ensuring tightly sealed doors, windows, floors, and ceilings will help keep the cold air out. Fix any cracks and install storm windows. Heavy drapes that stay open during the day to let in sunlight are also a good idea.

Thinking Long Term

If you plan on living in your home for a long time, you could plant trees that lose their leaves seasonally on the west and south sides of the house. This will allow the sun in during the winter and keep it out during the summer.

There are many programs available to assist with financing. The **Weatherization Assistance Program** helps low-income families nationwide to insulate and weatherize their homes. State energy offices and utility companies also run useful programs.

Sealing & Insulation

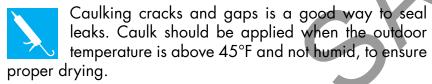
Properly sealing and insulating your home can reduce heating costs by as much as 30 percent.

The biggest air leaks are usually in large areas such as basements or attics. You might be able to find them by looking for daylight coming in through cracks or gaps, but it's always better to hire an energy auditor to help out.

Not Too Tight!

Unfortunately, it's not as simple as closing every gap in your house. Oversealing with improperly vented furnaces can cause serious health and safety problems, and any good contractor will work to find a good balance.

Why Caulk?



How Much Insulation Is Enough?

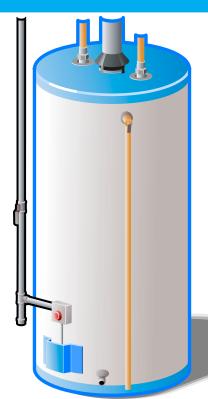
You should always ensure your house has the correct amount of insulation. The effectiveness of insulation is measured as an **R-value**, with higher numbers representing higher thermal resistance. Check with local authorities to see if the level of insulation you have matches that recommended for your area and climate.

You May Need More Insulation If:



- Your home is older and hasn't had any insulation added.
 Only 20 percent of homes built before 1980 are well insulated according to the U.S. Department of Energy.
- Your home is too cold in the winter or too hot in the summer.
- You build a new home, or an addition, or install new siding or roofing.
- Your energy bill is high.
- You hear excessive noise from outside.
- The tops of walls show signs of condensation or discoloration (mold is an even bigger problem than poor insulation and you should contact a contractor immediately).

Heating Water



Americans use a lot of water and we also pay twice for it—once for the cost of the water itself and again for the cost of heating it. This heating alone accounts for 11 percent of your energy bill, which is second only to your space heating. Reducing the amount of hot water you use will therefore help you save twice over.

Water Heater Tips

Look for the Energy Star label when choosing a new water heater. Products with this symbol meet strict energy-efficient guidelines set by the U.S. Environmental Protection Agency and the U.S. Department of Energy.

Turn down the thermostat to 120°F. You'll save between 6 and 10 percent on your energy bill according to the U.S. Department of Energy. This will also prevent scalding from extra-hot water and slow the buildup of minerals and corrosion in the water heater and pipes.

Going Away?

If you will be away on vacation, turn down the thermostat even further. Gas water heaters normally have a "vacation" setting that keeps the pilot light on but doesn't heat any water. If there is no risk of freezing, you can turn it off completely and relight it once you're back home.

Insulation Is Not Just for Your House

Insulate your water heater tank and water pipes. If your water heater has a tank, it should have an R-value that indicates its level of insulation. This should be at least R-24.

It is simple to insulate your heater by adding insulation jackets or blankets. These usually sell for between \$10 and \$20.

You could also insulate your water pipes, especially at the point where they connect with the heater. This can reduce heat loss and raise your water temperature between 2 and 4 degrees. Once again, it might be better to hire a professional to do this for you.

Buying a New Water Heater

If it's time to replace your old gas water heater, buy a new one that fits your needs. If it's too big, you'll end up paying to heat water you don't need.



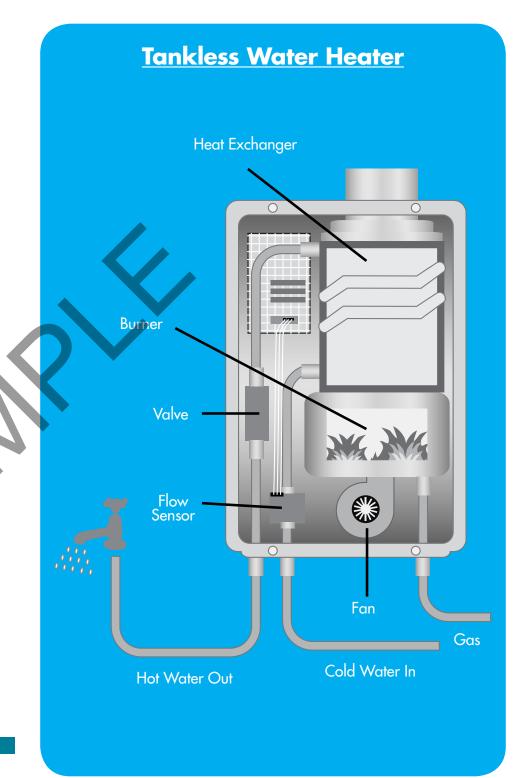
Look for an Energy Star-qualified water heater. An energyefficient model could save you money in the long run.

Should You Go Tankless?

You may want to look into a tankless water heater. As the name suggests, these heaters don't have a storage tank and instead continuously heat a steady stream of water. This cuts energy usage by 10 to 15 percent.

Most tankless heaters provide between 2 and 5 gallons of hot water per minute. Even with more than one system in place, this might not be enough for bigger households, but tankless heaters work very well in homes that already use water efficiently through low-flow faucets and other good practices.

If you decide to go tankless, purchase a heater with an energy factor of 0.82. Also investigate any federal, state, or local tax incentives before purchasing.



Faucets & Appliances

You can also save on your gas bill by fixing leaky water faucets. Thirty drops of water loss per minute can equal 50 gallons per month.

Install low-flow showerheads. They use one-third to one-half the water of regular showerheads. Remember that you're paying twice for heating that water, so every drop saved will have a big effect on your bill.

Also install low-flow aerators on faucets. These will reduce the amount of water that flows from your faucet, saving both water and energy.

Change Your Behavior

Take shorter showers in place of longer ones or baths. Use water-efficient washers, only with full loads, and wash with cold water instead of hot when doing your laundry.

Use energy-efficient dishwashers, again only with full loads, rather than washing dishes by hand, to save hot water.

Your bank account will thank you.



Resources

The U.S. Department of Energy www.energy.gov

The U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy www.eere.energy.gov

Energy Star, a joint program of the U.S. Department of Energy and the U.S. Environmental Protection Agency www.energystar.gov

U.S. Consumer Product Safety Commission

www.cpsc.gov



For more information about Project Energy Savers, visit www.projectenergysavers.com

Notice: This booklet was produced by Project Energy Savers™, LLC. Neither Project Energy Savers nor any person acting on behalf of Project Energy Savers makes any warranty, expressed or implied, with respect to the use of any information disclosed in this booklet, or assumes any liability with respect to the use of, or for damages resulting from the use of, any information contained in this booklet. The recommendations, statistics and information provided are strictly for the purposes of informing the user. The savings listed are estimated based on research and other findings. They are meant to be suggestive. Actual savings will depend on climate, home size and other factors.

© 2015 Project Energy SaversTM, LLC. All Rights Reserved.