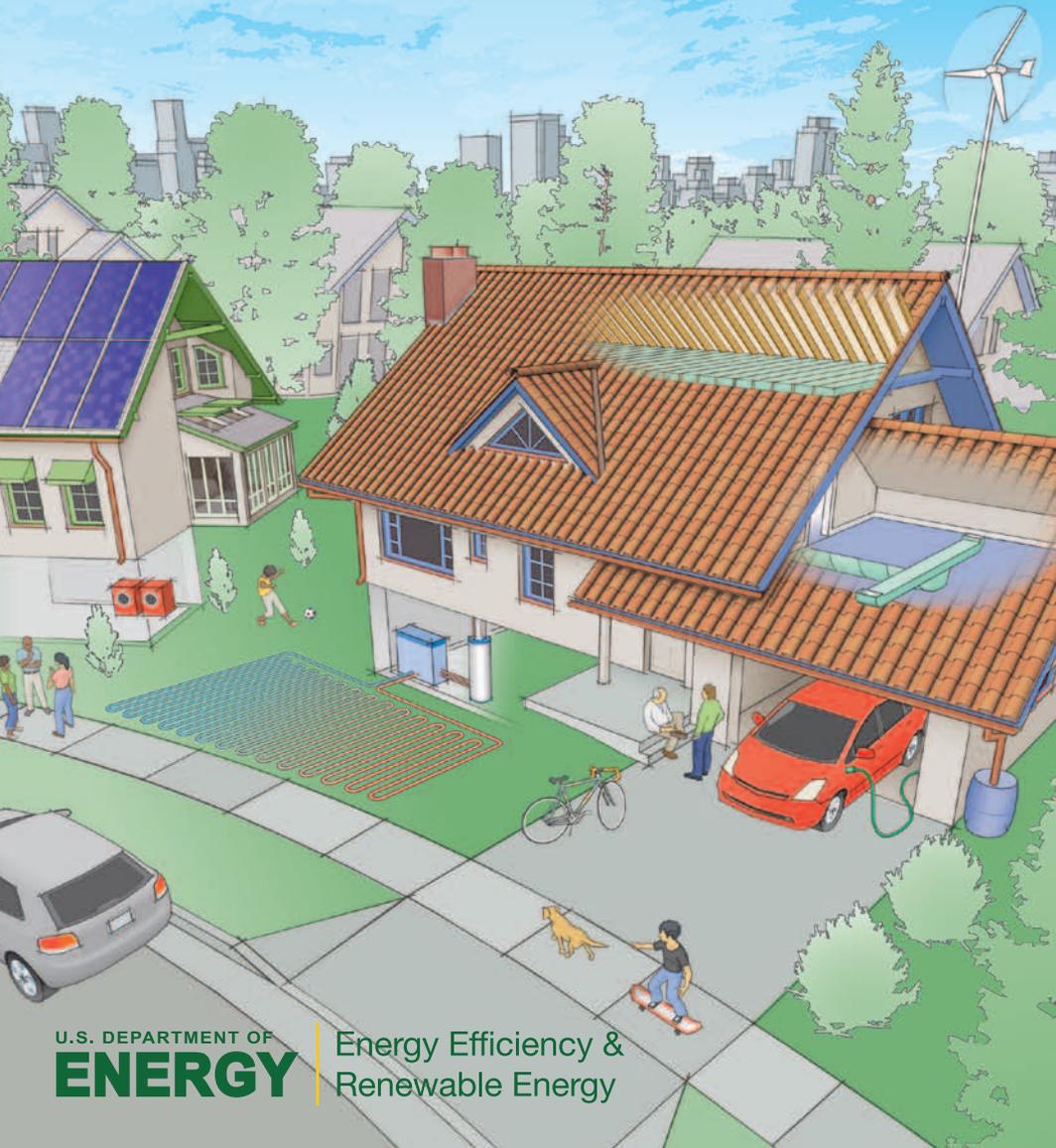


EnergySavers

Tips on Saving Money & Energy at Home
energysavers.gov



U.S. DEPARTMENT OF
ENERGY

Energy Efficiency &
Renewable Energy

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EnergySavers

Tips for Renters and Property Owners



Right in your own home, you have the power to save money and energy. Saving energy reduces our nation's overall demand for resources needed to make energy, and increasing your energy efficiency is like adding another clean energy source to our electric power grid.

This guide shows you how easy it is to cut your energy use at home and also on the road. The easy, practical solutions for saving energy include tips you can use today—from the roof and landscaping to appliances and lights. They are good for your wallet and for the environment—and actions that you take help reduce our national needs to produce or import more energy, thereby improving our energy security.

If you rent, or if you own a rental unit, you can use many of the tips throughout this guide to save money and energy!

Renters

You can reduce your utility bills by following the tips in the Lighting, Heating and Cooling (if you control the thermostat), Appliances, Home Office and Home Electronics, Windows, and Transportation sections. Encourage your landlord to follow these tips as well. They'll save energy and money, improving your comfort and lowering your utility bills even more.

Property Owners

Nearly all of the information in this guide applies to rental units. The chapter on Your Home's Energy Use focuses on air leaks, insulation, heating and cooling, roofing, landscaping, water heating, windows, appliances, and renewable energy.

Find even more information about saving money and energy at home by visiting energysavers.gov.

To learn more about U.S. Department of Energy (DOE) programs in energy efficiency and renewable energy, visit the Office of Energy Efficiency and Renewable Energy website at eere.energy.gov.

Save Money and Energy Today

An energy-efficient home will keep your family comfortable while saving you money. Whether you take simple steps or make larger investments to make your home more efficient, you'll see lower energy bills. Over time, those savings will typically pay for the cost of improvements and put money back in your pocket. Your home may also be more attractive to buyers when you sell.

The 113 million residences in America today collectively use an estimated 22% of the country's energy. Unfortunately, a lot of energy is wasted through leaky windows or ducts, old appliances, or inefficient heating and cooling systems. When we waste energy in our homes, we are throwing away money that could be used for other things. The typical U.S. family spends at least \$2,000 a year on home utility bills. You can lower this amount by up to 25% through following the Long Term Savings Tips in this guide.

The key to these savings is to take a whole-house approach—by viewing your home as an energy system with interdependent parts. For example, your heating system is not just a furnace—it's a heat-delivery system that starts at the furnace and delivers heat throughout your home using a network of ducts. Even a top-of-the-line, energy-efficient furnace will waste a lot of fuel if the ducts, walls, attic, windows, and doors are leaky or poorly insulated. Taking a whole-house approach to saving energy ensures that dollars you invest to save energy are spent wisely.

Tips to Save Energy Today

Easy low-cost and no-cost ways to save energy.

- Install a programmable thermostat to lower utility bills and manage your heating and cooling systems efficiently.
- Air dry dishes instead of using your dishwasher's drying cycle.
- Turn things off when you are not in the room such as lights, TVs, entertainment systems, and your computer and monitor.
- Plug home electronics, such as TVs and DVD players, into power strips; turn the power strips off when the equipment is not in use—TVs and DVDs in standby mode still use several watts of power.
- Lower the thermostat on your water heater to 120°F.
- Take short showers instead of baths and use low-flow showerheads for additional energy savings.
- Wash only full loads of dishes and clothes.
- Air dry clothes.
- Check to see that windows and doors are closed when heating or cooling your home.
- Drive sensibly; aggressive driving such as speeding, and rapid acceleration and braking, wastes fuel.
- Look for the ENERGY STAR® label on light bulbs, home appliances, electronics, and other products. ENERGY STAR products meet strict efficiency guidelines set by the U.S. Environmental Protection Agency and the U.S. Department of Energy.
- Visit energysavers.gov for more energy-saving ideas.

Your Home's Energy Use

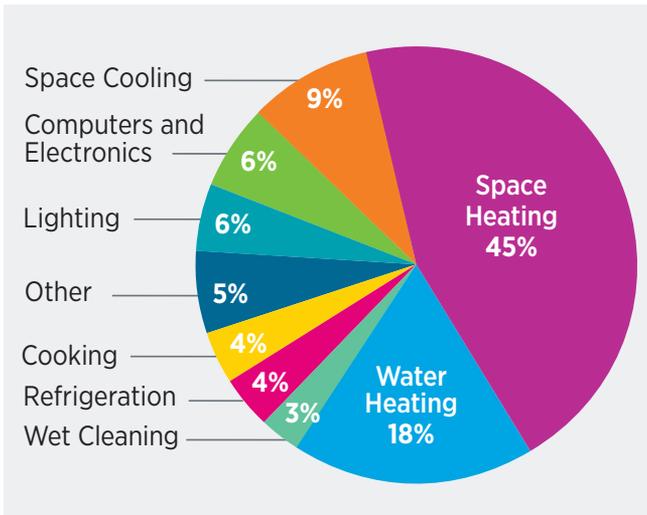
A home energy assessment (sometimes referred to as an energy audit) will show what parts of your house use the most energy and suggest the best ways to cut energy costs. You can conduct a simple home energy assessment by doing it yourself (DIY) or, for a more detailed assessment, contact your local utility or an energy auditor. Also, you can learn more about home energy audits and find free tools and calculators on energysavers.gov, the Residential Services Network at resnet.us, or the Building Performance Institute at bpi.org.

DIY Energy Assessment Tips

- Check the insulation in your attic, exterior and basement walls, ceilings, floors, and crawl spaces.

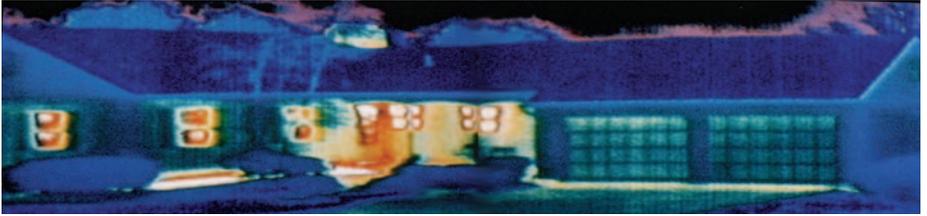
To determine the insulation R-values in different parts of your home, visit the Air Leaks and Insulation section of energysavers.gov.

- Check for air leaks around your walls, ceilings, windows, doors, light and plumbing fixtures, switches, and electrical outlets.
- Check for open fireplace dampers.
- Make sure your appliances and heating and cooling systems are properly maintained. Check your owner's manuals for the recommended maintenance.
- Study your family's lighting needs and look for ways to use controls—like sensors, dimmers, or timers—to reduce lighting use.



How We Use Energy in Our Homes

Heating accounts for the biggest portion of your utility bills. *Source: 2010 Buildings Energy Data Book, Table 2.1.1 Residential Primary Energy Consumption, by Year and Fuel Type.*



Cool  Hot

Photo from Infraspection Institute, Inc.

Heat Loss from a House

A picture is worth...in this case, lost heating dollars. This thermal image—taken by a professional energy auditor—shows warm air escaping through windows and cracks. The red shows where the most warm air is escaping.

Your Whole-House Plan

After you know where your home is losing energy, make a plan by asking yourself a few questions:

- How much money do you spend on energy?
- Where are your greatest energy losses?
- How long will it take for an investment in energy efficiency to pay for itself in energy cost savings?
- Do the energy-saving measures provide additional benefits that are important to you—for example, increased comfort from installing double-paned, efficient windows?
- How long do you plan to own your current home?
- Can you do the job yourself or do you need a contractor?
- What is your budget?
- How much time do you have for maintenance and repairs?

Planning smart purchases and home improvements will maximize your energy efficiency and save you the most money.

A more advanced alternative to performing a DIY energy assessment is to get advice from your state energy office, utility, or an independent energy auditor (see References for professional organizations). A professional energy auditor uses special test equipment to find air leaks, areas lacking insulation, and malfunctioning equipment. The auditor analyzes how well your home's energy systems work together, and compares the analysis to your utility bills. After gathering information about your home, the auditor will recommend cost-effective energy improvements that enhance comfort and safety. Some will also estimate how soon your investment in efficiency upgrades will pay off.

Smart Meters and a Smarter Power Grid

Millions of smart meters have been installed across the country. Smart meters provide two-way communication between you and your utility, helping your utility know about blackouts, for example. This helps utilities to maintain more reliable electrical service.

Smart meters can be used with home energy management systems such as Web-based tools that your utility provides or devices that can be installed in your home. Smart meters can display your home energy use, help you find ways to save energy and money, and even allow you to remotely adjust your thermostat or turn appliances off.

Time-Based Electricity Rates

To help reduce their peak power demands and save money, many utilities are introducing programs that encourage their customers to use electricity during off-peak hours. The programs pass on the savings to you, the customer, through rebates or reduced electricity rates.

Smart meters and home energy management systems allow customers to program how and when their home uses energy. Such programs might charge you the actual cost of power at any one time, ranging from high prices during times of peak demand to low prices during off-peak hours. If you are able to shift your power use to off-peak times—such as running your dishwasher late in the evening—these programs can save you money while helping your utility.

Time-based rates are very attractive to owners of plug-in hybrids and electric vehicles since typically these vehicles are recharged at night. See the Transportation section for more information.

Air Leaks and Insulation

Improving your home's insulation and sealing air leaks are the fastest and most cost-effective ways to reduce energy waste and make the most of your energy dollars. Be sure to seal air leaks before you insulate, because insulating materials won't block leaks.

Sealing Air Leaks

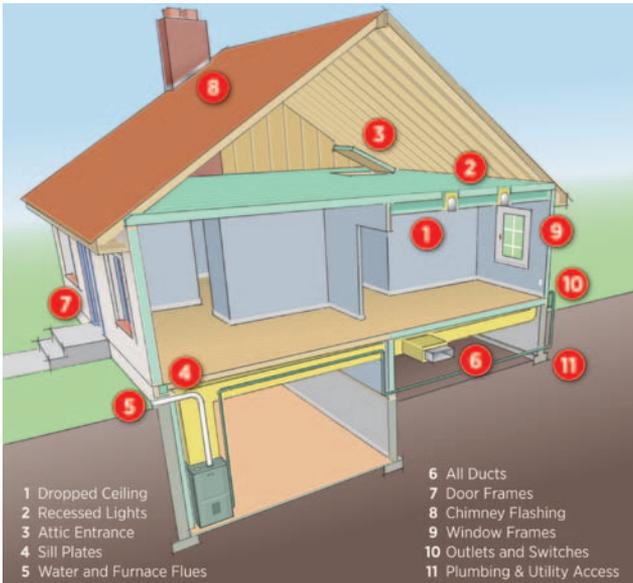
Air leaks can waste a lot of your energy dollars. One of the quickest energy- and money-saving tasks you can do is caulk, seal, and weather strip all seams, cracks, and openings to the outside.

Tips for Sealing Air Leaks

- Test your home for air tightness. On a windy day, carefully hold a lit incense stick or a smoke pen next to your windows, doors, electrical boxes, plumbing fixtures, electrical outlets, ceiling fixtures, attic

hatches, and other places where air may leak. If the smoke stream travels horizontally, you have located an air leak that may need caulking, sealing, or weatherstripping.

- Caulk and weatherstrip doors and windows that leak air.
- Caulk and seal air leaks where plumbing, ducting, or electrical wiring comes through walls, floors, ceilings, and soffits over cabinets.
- Install foam gaskets behind outlet and switch plates on walls.
- Inspect dirty spots in your insulation for air leaks and mold. Seal leaks with low-expansion spray foam made for this purpose and install house flashing if needed.
- Look for dirty spots on your ceiling paint and carpet, which may indicate air leaks at interior wall/ceiling joints and wall/floor joists, and caulk them.



Sources of Air Leaks in Your Home

Areas that leak air into and out of your home cost you a lot of money. The areas listed in the illustration are the most common sources of air leaks.

- Cover single-pane windows with storm windows or replace them with more efficient double-pane low-emissivity windows. See the Windows section for more information.
- Use foam sealant on larger gaps around windows, baseboards, and other places where air may leak out.
- Cover your kitchen exhaust fan to stop air leaks when not in use.
- Check your dryer vent to be sure it is not blocked. This will save energy and may prevent a fire.
- Replace door bottoms and thresholds with ones that have pliable sealing gaskets.
- Keep the fireplace flue damper tightly closed when not in use.
- Seal air leaks around fireplace chimneys, furnaces, and gas-fired water heater vents with fire-resistant materials such as sheet metal or sheetrock and furnace cement caulk.

Fireplace flues are made from metal, and over time repeated heating and cooling can cause the metal to warp or break, creating a channel for air loss. To seal your flue when not in use, consider an inflatable chimney balloon. Inflatable chimney balloons fit beneath your fireplace flue when not in use, are made from durable plastic, and can be removed easily and reused hundreds of times. If you forget to remove the balloon before making a fire, the balloon will automatically deflate within seconds of coming into contact with heat.

Insulation

Insulation is made from a variety of materials, and it usually comes in four types: rolls and batts, loose-fill, rigid foam, and foam-in-place.

Rolls and batts—or blankets—are flexible products made from mineral fibers, such as fiberglass and rock wool. They

are available in widths suited to standard spacing of wall studs and attic or floor joists: 2 in. x 4 in. walls can hold R-13 or R-15 batts; 2 in. x 6 in. walls can use R-19 or R-21 products.

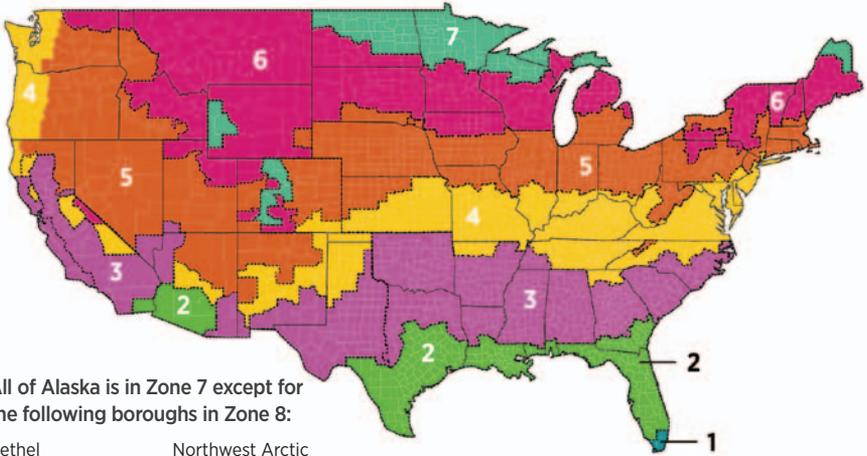
Loose-fill insulation is usually made of fiberglass, rock wool, or cellulose in the form of loose fibers or fiber pellets. It should be blown into spaces using special pneumatic equipment. The blown-in material conforms readily to odd-sized building cavities and attics with wires, ducts, and pipes, making it well suited for places where it is difficult to effectively install other types of insulation.

Rigid foam insulation is typically more expensive than rolls and batts or loose-fill insulation, but it is very effective in exterior wall sheathing, interior sheathing for basement walls, and special applications such as attic hatches. Foam insulation R-values range from R-4 to R-6.5 per inch of thickness, which is up to 2 times greater than most other insulating materials of the same thickness.

Foam-in-place insulation can be blown into walls, on attic surfaces, or under floors to insulate and reduce air leakage. You can use the small pressurized cans of foam-in-place insulation to reduce air leakage in holes and cracks such as window and door frames, and electrical and plumbing penetrations.

There are two types of foam-in-place insulation: closed-cell and open-cell. Both are typically made with polyurethane. With closed-cell foam, the high-density cells are closed and filled with a gas that helps the foam expand to fill the spaces around it. Closed-cell foam is the most effective, with an insulation value of around R-6.2 per inch of thickness.

U.S. Department of Energy Recommended* Total R-Values for New Wood-Framed Houses



All of Alaska is in Zone 7 except for the following boroughs in Zone 8:

- | | |
|-------------------|---------------------|
| Bethel | Northwest Arctic |
| Dellingham | Southeast Fairbanks |
| Fairbanks N. Star | Wade Hampton |
| Nome | Yukon-Koyukuk |
| North Slope | |

Zone 1 includes:

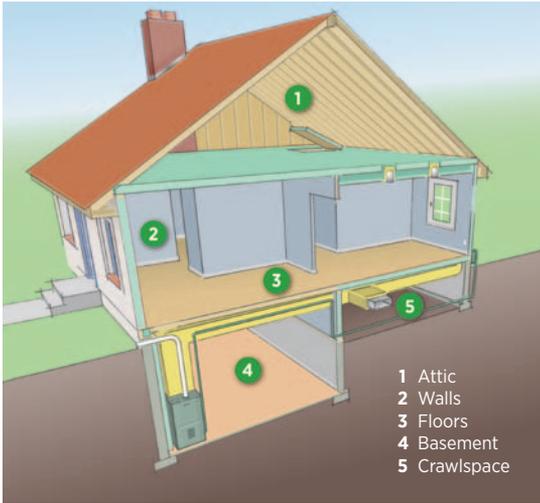
Hawaii, Guam, Puerto Rico and the Virgin Islands

How Much Insulation Does My Home Need?

For insulation recommendations tailored to your home, visit the DOE Zip Code Insulation Calculator at ornl.gov/~roofs/Zip/ZipHome.html.

Zone	Gas	Heat Pump	Fuel Oil	Electric	Attic	Cathedral Ceiling	Cavity	Insulation Sheathing	Floor
1	•	•	•	•	R30 to R49	R22 to R38	R13 to R15	None	R13
2	•	•	•		R30 to R60	R22 to R38	R13 to R15	None	R13
				•	R30 to R60	R22 to R38	R13 to R15	None	R19 - R25
3	•	•	•		R30 to R60	R22 to R38	R13 to R15	None	R25
				•	R30 to R60	R22 to R38	R13 to R15	R2.5 to R5	R25
4	•	•	•		R38 to R60	R30 to R38	R13 to R15	R2.5 to R6	R25 - R30
				•	R38 to R60	R30 to R38	R13 to R15	R5 to R6	R25 - R30
5	•	•	•		R38 to R60	R30 to R38	R13 to R15	R2.5 to R6	R25 - R30
				•	R38 to R60	R30 to R60	R13 to R21	R5 to R6	R25 - R30
6	•	•	•	•	R49 to R60	R30 to R60	R13 to R21	R5 to R6	R25 - R30
7	•	•	•	•	R49 to R60	R30 to R60	R13 to R21	R5 to R6	R25 - R30
8	•	•	•	•	R49 to R60	R30 to R60	R13 to R21	R5 to R6	R25 - R30

* These recommendations are cost-effective levels of insulation based on the best available information on local fuel and materials costs and weather conditions. Consequently, the levels may differ from current local building codes.



Where to Insulate

Adding insulation in the areas shown here may be the best way to improve your home's energy efficiency. Insulate either the attic floor or under the roof. Check with a contractor about crawl space or basement insulation.

Open-cell foam cells are not as dense and are filled with air, which gives the insulation a spongy texture. Open-cell foam insulation value is around R-3.7 per inch of thickness.

The type of insulation you should choose depends on how you will use it and on your budget. While closed-cell foam has a greater R-value and provides stronger resistance against moisture and air leakage, the material is also much denser and is more expensive to install. Open-cell foam is lighter and less expensive but should not be used below ground level where it could absorb water. Consult a professional insulation installer to decide what type of insulation is best for you.

Insulation Tips

- Consider factors such as your climate, home design, and budget when selecting insulation for your home.
- Use higher R-value insulation, such as spray foam, on exterior walls and in cathedral ceilings to get more insulation with less thickness.
- Install attic air barriers such as wind baffles along the entire attic eave to

help ensure proper airflow from the soffit to the attic. Ventilation helps with moisture control and reducing summer cooling bills, but don't ventilate your attic if you have insulation on the underside of the roof. Ask a qualified contractor for recommendations.

- Be careful how close you place insulation next to a recessed light fixture—unless it is insulation contact (IC) rated—to avoid a fire hazard. See the Lighting section for more information about recessed lights.
- Follow the manufacturer's installation instructions, and wear the proper protective gear when installing insulation.

\$ Long-Term Savings Tips

One of the most cost-effective ways to make your home more comfortable year-round is to add insulation to your attic, including the attic trap or access door, which is relatively easy. To find out if you have enough attic insulation, measure the thickness of the insulation.

Tips for Finding a Contractor

- Look for licensed, insured, and certified contractors.
- Get three bids with details in writing.
- Ask about previous experience.
- Check references.
- Ask neighbors and friends for recommendations.
- Focus on local companies.

If it is less than R-30 (11 inches of fiber glass or rock wool or 8 inches of cellulose), you could probably benefit by adding more.

If your attic has enough insulation and proper air sealing, and your home still feels drafty and cold in the winter or too warm in the summer, chances are you need to add insulation to the exterior walls. This is more expensive and usually requires a contractor, but it may be worth the cost—especially if you live in a very cold climate. If you replace the exterior siding on your home, consider adding insulation at the same time.

You may also need to add insulation to your crawl space or basement. Check with a professional contractor for recommendations.

New Construction and Additions

In most climates, you will save money and energy when you build a new home or addition if you install a combination of cavity insulation and insulative sheathing. Reduce exterior wall leaks by taping the joints of exterior sheathing and caulking and sealing exterior walls. Cavity insulation can be installed at levels up to R-15 in a 2 in. x 4 in. wall and up to R-21 in a 2 in. x 6 in. wall.

These help to reduce the energy that would otherwise be lost through the wood frame. The table on page 9 shows the recommended combinations. For more customized recommendations, see the ZIP Code Insulation Calculator at ornl.gov/~roofs/Zip/ZipHome.html.

Consider products that provide both insulation and structural support, such as structural insulated panels (SIPs), and masonry products like insulating concrete forms. Visit energysavers.gov for more information on structural insulation.

You should consider attic or roof radiant barriers (in hot climates), reflective insulation, and foundation insulation for new home construction. Check with your contractor for more information about these options.

Should I Insulate My Home?

Insulate your home when:

- You have an older home and haven't added insulation. Homes built before 1950 use about 60% more energy per square foot than those built in 2000 or later.
- You are uncomfortably cold in the winter or hot in the summer—adding insulation creates a more uniform temperature and increases comfort.
- You build a new home or addition or install new siding or roofing.
- You pay high energy bills.
- You are bothered by noise from outside—insulation muffles sound.

Heating and Cooling

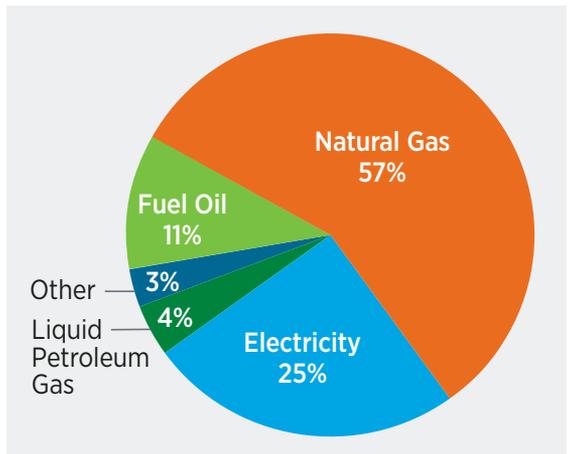
Heating and cooling your home uses more energy and costs more money than any other system in your home—typically making up about 54% of your utility bill.

No matter what kind of heating and cooling system you have in your house, you can save money and increase your comfort by properly maintaining and upgrading your equipment. But remember, an energy-efficient furnace alone will not have as great an impact on your energy bills as using the whole-house approach. By combining proper equipment maintenance and upgrades with recommended insulation, air sealing, and thermostat settings, you can cut your energy use for heating and cooling—and reduce environmental emissions—from 20%-50%.

Heating and Cooling Tips

- Set your programmable thermostat as low as is comfortable in the winter and as high as is comfortable in the summer, as well as when you're sleeping or away from home.
- Clean or replace filters on furnaces and air conditioners once a month or as recommended.
- Clean warm-air registers, baseboard heaters, and radiators as needed; make sure they're not blocked by furniture, carpeting, or drapes.

- Eliminate trapped air from hot-water radiators once or twice a season; if unsure about how to perform this task, contact a professional.
- Place heat-resistant radiator reflectors between exterior walls and the radiators.
- Turn off kitchen, bath, and other exhaust fans within 20 minutes after you are done cooking or bathing; when replacing exhaust fans, consider installing high-efficiency, low-noise models.
- During winter, keep the draperies and shades on your south-facing windows open during the day to allow the sunlight to enter your home and closed at night to reduce the chill you may feel from cold windows.



Household Heating Systems

Although several different types of fuels are available to heat our homes, more than half of us use natural gas. *Source: Buildings Energy Data Book 2010, 2.1.1 Residential Primary Energy Consumption, by Year and Fuel Type (Quadrillion Btu and Percent of Total)*

- During summer, keep the window coverings closed during the day to block the sun's heat.

\$ Long-Term Savings Tips

Select energy-efficient products when you buy new heating and cooling equipment. Your contractor should be able to give you energy fact sheets for different types, models, and designs to help you compare energy usage.

For furnaces, look for high Annual Fuel Utilization Efficiency (AFUE) ratings. The national minimum is 78% AFUE, but there are ENERGY STAR® models on the market that exceed 90% AFUE. For air conditioners, look for a high Seasonal Energy Efficiency Ratio (SEER). The current minimum is 13 SEER for central air conditioners. ENERGY STAR models are 14.5 SEER or more.

Air Ducts

Your air ducts are one of the most important systems in your home, and if the ducts are poorly sealed or insulated they are likely contributing to higher energy bills.

Your home's duct system is a branching network of tubes in the walls, floors, and ceilings; it carries the air from your home's furnace and central air conditioner to each room. Ducts are made of sheet metal, fiberglass, or other materials.

Ducts that leak heated air into unheated spaces can add hundreds of dollars a year to your heating and cooling bills. Insulating ducts that are in unconditioned spaces is usually very cost effective. If you are installing a new duct system, make sure it comes with insulation.

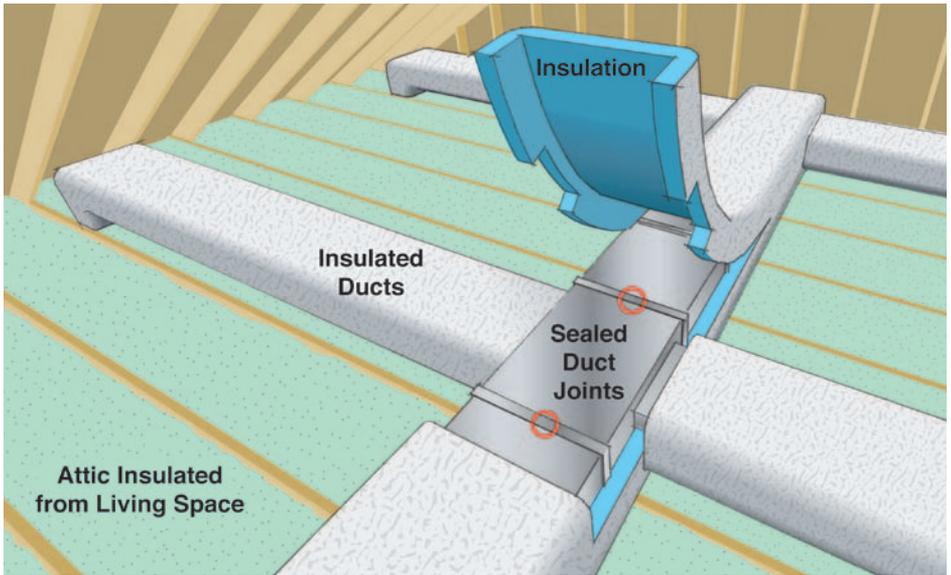
Sealing your ducts to prevent leaks is even more important if the ducts are located in an unconditioned area such as an attic or vented crawl space. If the

supply ducts are leaking, heated or cooled air can be forced out of unsealed joints and lost. In addition, unconditioned air can be drawn into return ducts through unsealed joints.

Although minor duct repairs are easy to make, qualified professionals should seal and insulate ducts in unconditioned spaces to ensure the use of appropriate sealing materials.

Minor Duct Repair Tips

- Check your ducts for air leaks. First, look for sections that should be joined but have separated and then look for obvious holes.
- If you use tape to seal your ducts, avoid cloth-backed, rubber adhesive duct tape—it tends to fail quickly. Instead, use mastic, butyl tape, foil tape, or other heat-approved tapes. Look for tape with the Underwriters Laboratories (UL) logo.
- Remember that insulating ducts in the basement will make the basement colder. If both the ducts and the basement walls are not insulated, consider insulating both. Water pipes and drains in unconditioned spaces could freeze and burst if the heat ducts are fully insulated because there would be no heat source to prevent the space from freezing in cold weather. However, using an electric heating tape wrap on the pipes can prevent this. Check with a professional contractor.
- Hire a professional to install both supply and return registers in the basement rooms after converting your basement to a living area.
- Be sure a well-sealed vapor barrier exists on the outside of the insulation on cooling ducts to prevent moisture condensation.



Air Ducts: Out of Sight, Out of Mind

The unsealed ducts in your attic and crawlspaces lose air, and uninsulated ducts lose heat—wasting energy and money.

- If you have a fuel-burning furnace, stove, or other appliance or an attached garage, install a carbon monoxide (CO) monitor to alert you to harmful CO levels.
- Be sure to get professional help when doing ductwork. A qualified professional should always perform changes and repairs to a duct system.

Install a Carbon Monoxide Detector

Carbon monoxide (CO) detectors are required in new buildings in many states. They are highly recommended in homes with fuel-burning appliances such as natural gas furnaces, stoves, ovens, water heaters, and space heaters. An alarm signals if CO reaches potentially dangerous levels.

Heat Pumps

Heat pumps are the most efficient form of electric heating in moderate climates, providing up to three times more heat than the energy they use. A heat pump can reduce your electricity use for heating by 30%-40% compared to electric resistance heating such as furnaces and baseboard heaters.

A heat pump does double duty as a central air conditioner by collecting the heat inside your house and pumping it outside.

There are three types of heat pumps: air-to-air, water source, and geothermal. They collect heat from the air, water, or ground outside your home and concentrate it for use inside.

Geothermal (or ground source) heat pumps have some major advantages. They can reduce energy use by 30%-60%, control humidity, are sturdy and reliable, and fit in a wide variety of homes.

Heat Pump Tips

- Do not set back the heat pump's thermostat manually if it causes the electric-resistance heating to come on. This type of heating, which is often used as a backup to the heat pump, is more expensive.
- Install or have a professional install a programmable thermostat with multistage functions suitable for a heat pump.
- Clean or change filters once a month or as needed, and maintain the system according to manufacturer's instructions.

\$ Long-Term Savings Tip

If you heat your home with electricity and live in a moderate climate, consider an energy-efficient heat pump system to reduce your energy consumption.

Passive Solar Heating and Cooling

Using passive solar design to heat and cool your home can be both environmentally friendly and cost effective. In many cases, your heating costs can be reduced to less than half the cost of heating a typical home.

Passive solar design can also help lower your cooling costs. Passive solar cooling techniques include carefully designed overhangs and using reflective coatings on windows, exterior walls, and roofs. Newer techniques include placing large, insulated windows on south-facing walls and putting thermal mass, such as a concrete slab floor or a heat-absorbing wall, close to the windows.

A passive solar house requires careful design and siting, which vary by local climate conditions. If you are considering

passive solar design for a new home or a major remodel, consult an architect familiar with passive solar techniques.

Passive Solar Tips

- Keep all south-facing glass clean.
- Make sure that objects do not block sunlight on concrete slab floors or heat-absorbing walls.

Natural Gas and Oil Heating

If you plan to buy a new heating system, ask your local utility or state energy office about the latest technologies on the market. For example, many newer models have designs for burners and heat exchangers that are more efficient during operation and cut heat loss when the equipment is off.

Consider a sealed-combustion furnace—they are safer and more efficient.

\$ Long-Term Savings Tip

Install a new energy-efficient furnace to save money over the long term. Look for the ENERGY STAR and EnergyGuide labels to compare efficiency and ensure quality.

Programmable Thermostats

You can save as much as 10% a year on heating and cooling by simply turning your thermostat back 7°-10°F for 8 hours a day from where you would normally set. (If you have a heat pump, don't do this without a programmable thermostat). You can do this automatically by using a programmable thermostat and scheduling the times you turn on the heating or air conditioning. As a result, the equipment doesn't operate as much when you are asleep or not at home.

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