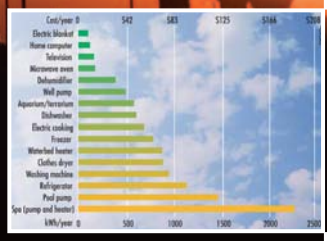
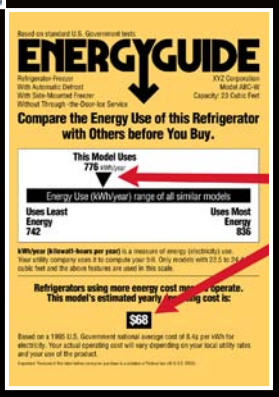
RESOURCES FOR INCREASING THE ENERGY EFFICIENCY OF SOUTHERN NEVADA'S HOMES





PRESENTED BY:

CONGRESSWOMAN SHELLEY BERKLEY

MAY 28, 2009

SHELLEY BERKLEY
1st District, Nevada

405 Cannon House Office Building
Washington, DC 20515
(202) 225-5965
shelley.berkley@mail.house.gov

2340 Paseo Del Prado
Suite D106
Las Vegas, Nevada 89102
(702) 220-9823
Fax: (702) 220-9841
www.house.gov/berkley

Congress of the United States
House of Representatives
Washington, DC 20515-2801

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May 28, 2009

Dear Constituents:

As the Representative for Nevada's First Congressional District, it is my pleasure to provide you with the following information on energy efficiency and the money you can save by implementing principles in your home.

There are a variety of ways you and your family can save energy, many of which are outlined in the following pages. Energy efficient options are often simple and easy to implement, and are available to fit every home and every budget. I urge you to review the many options available and seek help in tailoring an individual approach to increasing efficiency according to your own interest and budget.

Energy efficiency can also provide important savings to you and your family. A number of rebates, tax incentives and grant programs are discussed in the following pages. All of these programs are designed to encourage the switch to responsible energy consumption, and to make doing so affordable for all consumers.

I encourage you to consider the information provided, and to make the switch to a more energy efficient lifestyle.

Sincerely,

Shelley Berkley

Member of Congress

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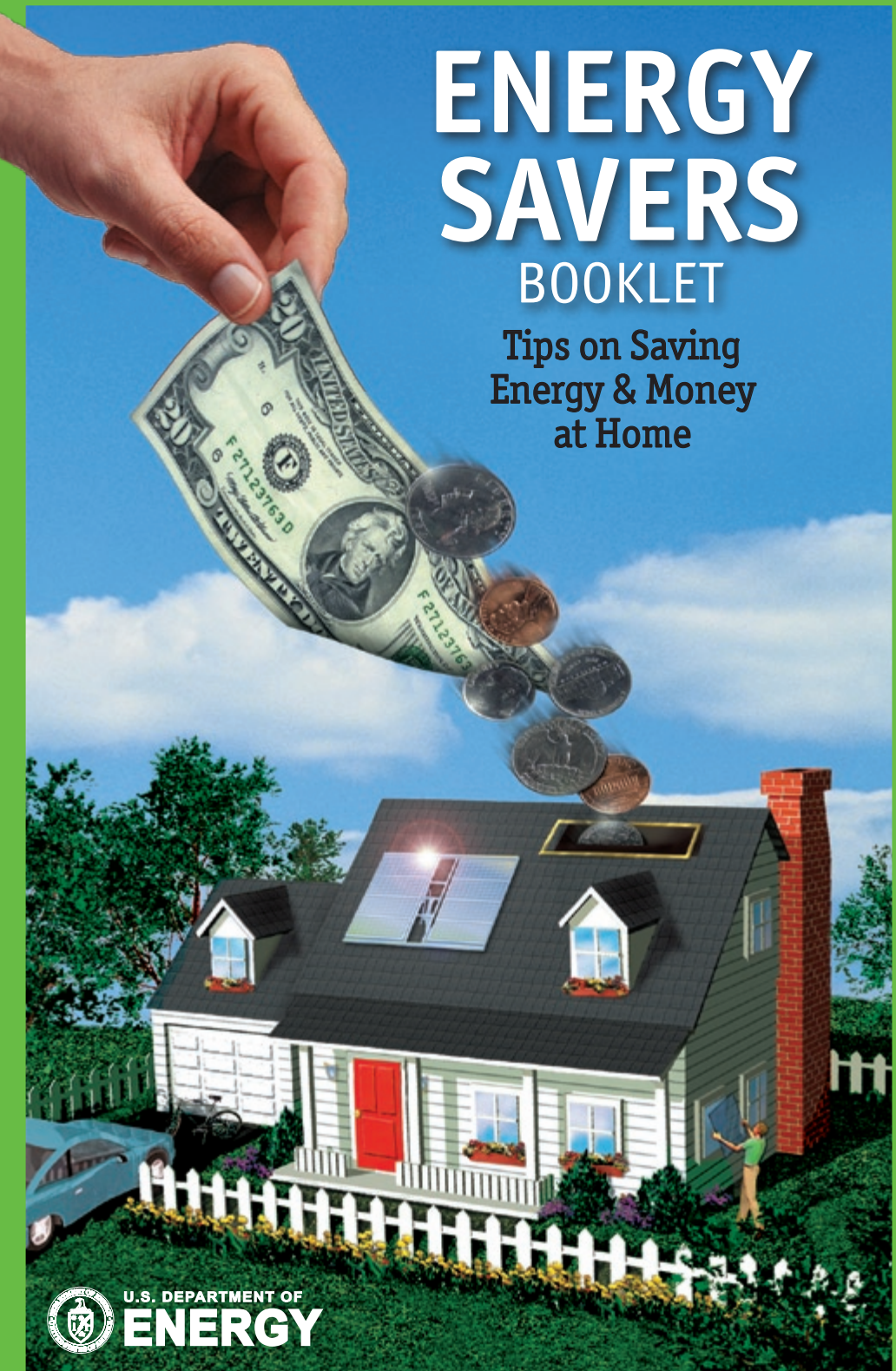
ENERGY SAVERS BOOKLET

Tips on Saving Energy & Money at Home



U.S. DEPARTMENT OF ENERGY

Right in your own home, you have the power to reduce energy demand, and when you reduce demand, you cut the amount of resources, like coal and gas, needed to make energy—that means you create less greenhouse gas emissions, which keeps air cleaner for all of us... and saves on your utility bills! Plus, reducing energy use increases our energy security.

Contents

This booklet shows you how easy it is to reduce your energy use at home and on the road. The easy, practical solutions for saving energy include tips you can use today, throughout your home—from the roof, walls, and insulation that enclose it to the appliances and lights inside. Please take a few moments to read the valuable tips in this booklet to start saving energy and money today.

To learn more about U.S. Department of Energy programs in energy efficiency and renewable energy, visit the Office of Energy Efficiency and Renewable Energy's web site at www.eere.energy.gov

Save Energy and Money Today

Did you know that the typical U.S. family spends about $1,900 a year on home utility bills? Unfortunately, a large portion of that energy is wasted. And each year, electricity generated by fossil fuels for a single home puts more carbon dioxide into the air than two average cars. And as for the road, transportation accounts for 67% of all U.S. oil consumption. The good news is that there is a lot you can do to save energy and money at home and in your car. Start making small changes today (see sidebar). To cut your energy use up to 25%, see the Long-Term Savings Tips throughout this booklet.

The key to achieving these savings in your home is a whole-house energy efficiency plan. To take a whole-house approach, view 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 not properly sealed and insulated. Taking a whole-house approach to saving energy ensures that dollars you invest to save energy are spent wisely.

Energy-efficient improvements not only make your home more comfortable, they can yield long-term financial rewards. Reduced utility bills more than make up for the higher price of energy-efficient appliances and improvements over their lifetimes. In addition, your home could bring in a higher price when you sell.

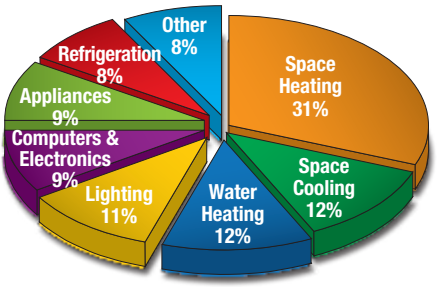
Tips to Save Energy Today

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

- Install a programmable thermostat to keep your house comfortably warm in the winter and comfortably cool in the summer.
- Use compact fluorescent light bulbs with the ENERGY STAR® label.
- Air dry dishes instead of using your dishwasher's drying cycle.
- Turn off your computer and monitor when not in use.
- 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 hot water heater to 120°F.
- Take short showers instead of baths.
- Wash only full loads of dishes and clothes.
- Drive sensibly. Aggressive driving (speeding, rapid acceleration and braking) wastes gasoline.
- Look for the ENERGY STAR label on home appliances and products. ENERGY STAR products meet strict efficiency guidelines set by the U.S. Department of Energy and the Environmental Protection Agency.
- Visit www.energysavers.gov for more energy-saving ideas.

Your Home's Energy Use

The first step to taking a whole-house energy efficiency approach is to find out which parts of your house use the most energy. A home energy audit will pinpoint those areas and suggest the most effective measures for cutting your energy costs. You can conduct a simple home energy audit yourself, contact your local utility, or call an independent energy auditor for a more comprehensive examination. For more information about home energy audits, including free tools and calculators, visit www.energysavers.gov or www.natresnet.org.



How We Use Energy in Our Homes
Heating accounts for the biggest chunk of a typical utility bill.

Source: 2007 Buildings Energy Data Book, Table 4.2.1., 2005 energy cost data.

Energy Auditing Tips

- Check the insulation levels in your attic, exterior and basement walls, ceilings, floors, and crawl spaces. Visit www.energysavers.gov for instructions on checking your insulation levels.
- Check for holes or cracks around your walls, ceilings, windows, doors, light and plumbing fixtures, switches, and electrical outlets that can leak air into or out of your home.
- 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 use patterns, paying special attention to high-use areas such as the living room, kitchen, and outside lighting. Look for ways to use lighting controls—like occupancy sensors, dimmers, or timers—to reduce lighting energy use, and replace standard (incandescent) light bulbs and fixtures with compact or standard fluorescent lamps.

Formulating Your Plan

After you have identified where your home is losing energy, assign priorities by asking yourself a few important 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 will you need to hire a contractor?
- What is your budget and how much time do you have to spend on maintenance and repair?

Once you assign priorities to your energy needs, you can form a whole house efficiency plan. Your plan will provide you with a strategy for making smart purchases and home improvements that maximize energy efficiency and save the most money.

Another option is to get the advice of a professional. Many utilities conduct energy audits for free or for a small charge. For a fee, a professional contractor will analyze how well your home's energy systems work together and compare the analysis to your utility bills. He or she will use a variety of equipment such as blower doors, infrared cameras, and surface thermometers to find leaks and drafts. After gathering information about your home, the contractor or auditor will give you a list of recommendations for cost-effective energy improvements and enhanced comfort and safety. A reputable contractor can also calculate the return on your investment in high-efficiency equipment compared with standard equipment.

Tips for Finding a Contractor

- Ask neighbors and friends for recommendations
- Look in the Yellow Pages
- Focus on local companies
- Look for licensed, insured contractors
- Get three bids with details in writing
- Ask about previous experience
- Check references
- Check with the Better Business Bureau

Heat Loss from a House

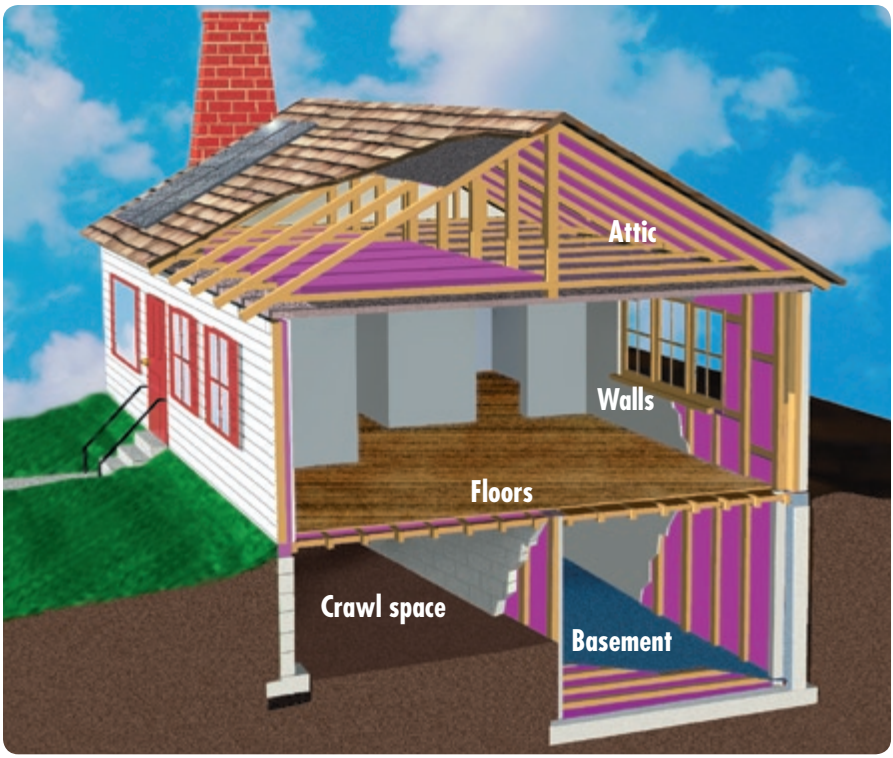
A picture is worth...in this case, lost heating dollars. This thermal photograph shows heat leaking from a house during those expensive winter heating months. The white, yellow, and red colors show heat escaping. The red represents the area of the greatest heat loss.

Insulation and Sealing Air Leaks

Checking your home's insulation is one of the fastest and most cost-effective ways to use a whole-house approach to reduce energy waste and make the most of your energy dollars. A good insulating system includes a combination of products and construction techniques that protect a home from outside hot or cold temperatures, protect it against air leaks, and control moisture. You can increase the comfort of your home while reducing your heating and cooling needs by investing in proper insulation and sealing air leaks.

Insulation

First, check the insulation in your attic, ceilings, exterior and basement walls, floors, and crawl spaces to see if it meets the levels recommended for your area. Insulation is measured in R-values—the higher the R-value, the better your walls and roof will resist the transfer of heat. DOE recommends ranges of R-values based on local heating and cooling costs and climate conditions in different areas of the nation. The map and chart on pages 6 and 7 show the DOE recommendations for your area. State and local code minimum insulation requirements may be less than the DOE recommendations, which are based on



Where to Insulate

Adding insulation in the areas shown above 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.

cost effectiveness. For more customized insulation recommendations, visit our site, www.energysavers.gov, look for Insulation and check out the Zip Code Insulation Calculator. This tool provides insulation levels for your new or existing home based on your zip code and other basic information about your home. Although insulation can be made from a variety of materials, it usually comes in four types; each type has different characteristics.

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 spacings of wall studs and attic or floor joists: 2x4 walls can hold R-13 or R-15 batts; 2x6 walls can have R-19 or R-21 products.

Loose-fill insulation—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 building cavities and attics. Therefore, loose-fill insulation is well suited for places where it is difficult to install other types of insulation.

Rigid foam insulation—foam insulation typically is more expensive than fiber insulation. But it's very effective in buildings with space limitations and where higher R-values are needed. 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—this type can be blown into walls and reduces air leakage, if blown into cracks, such as around window and door frames.

Should I Insulate My Home?

Insulate your home when:

- You have an older home and haven't added insulation. Only 20% of homes built before 1980 are well insulated.
- 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, addition, or install new siding or roofing.
- You pay high energy bills.
- You are bothered by noise from outside—insulation muffles sound.

Insulation Tips

- Consider factors such as your climate, building design, and budget when selecting insulation R-values for your home.
- Use higher density insulation on exterior walls, such as rigid foam boards, in cathedral ceilings and on exterior walls.
- Ventilation helps with moisture control and reducing summer cooling bills. Attic vents can be installed along the entire ceiling cavity to help ensure proper airflow from the soffit to the attic to make a home more comfortable and energy efficient. Do not ventilate your attic if you have insulation on the underside of the roof. Check with a qualified contractor.
- Recessed light fixtures can be a major source of heat loss, but you need to be careful how close you place insulation next to a fixture unless it is marked IC—designed for direct insulation contact. Check your local building codes for recommendations. See Lighting for more about recessed cans.

- As specified on the product packaging, follow the product instructions on installation and wear the proper protective gear when installing insulation.

$ Long-Term Savings Tip

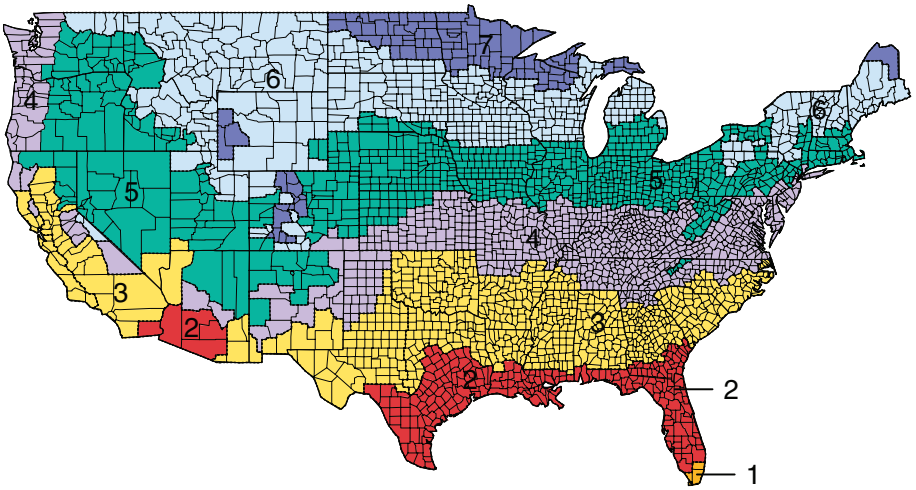
- One of the most cost-effective ways to make your home more comfortable year-round is to add insulation to your attic.

Adding insulation to the attic is relatively easy and very cost effective. To find out if you have enough attic insulation, measure the thickness of the insulation. 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. Most U.S. homes should have between R-30 and R-60 insulation in the attic. Don't forget the attic trap or access door.

If your attic has enough insulation 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 as well. This is a more expensive measure that usually requires a contractor, but it may be worth the cost if you live in a very hot or cold climate. If you replace the exterior siding on your home, you should 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.

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



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

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

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 *www.ornl.gov/~roofs/zip/ziphome.html.*

* 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.

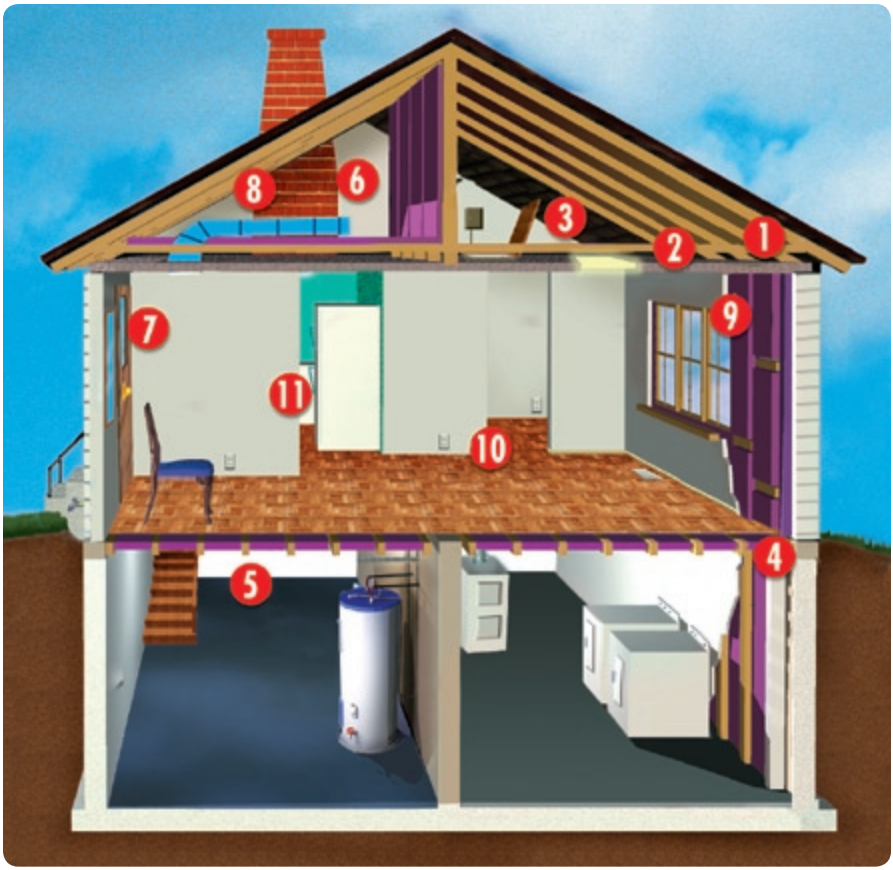
New Construction

For new homes in most climates, you will save money and energy if you install a combination of cavity insulation and insulative sheathing. 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. The insulative sheathing, used in addition to this cavity insulation, helps to reduce the energy that would otherwise be lost through the wood frame. The table below shows the recommended combinations. For example, in Zone 5, you could use either a 2x4 wall with R-13 or a 2x6 wall with R-21. For either of those two walls, you should also use an inch of insulative sheathing that has an R-value of R-5 or R-6.

Today, new products are on the market that provide both insulation and structural support and should be considered for new home construction or additions. Structural insulated panels, known as SIPs, and masonry products like insulating concrete forms are among these. Some homebuilders are even using an old technique borrowed from the pioneers: building walls using straw bales. Check online at www.energysavers.gov for more information on structural insulation.

Radiant barriers (in hot climates), reflective insulation, and foundation insulation should all be considered for new home construction. Check with your contractor for more information about these options.

Zone	Gas	Heat Pump	Fuel Oil	Electric Furnace	Attic	Cathedral Ceiling	Wall		Floor
							Cavity	Insulation Sheathing	
1	✓	✓	✓	✓	R30 to R49	R22 to R38	R13 to R15	None	R13
2	✓	✓	✓		R30 to R60	R22 to R38	R13 to R15	None	R13
2				✓	R30 to R60	R22 to R38	R13 to R15	None	R19 - R25
3	✓	✓	✓		R30 to R60	R22 to R38	R13 to R15	None	R25
3				✓	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
4				✓	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
5				✓	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



Sources of Air Leaks in Your Home

Areas that leak air into and out of your home cost you lots of money. Check the areas listed below.

1 Dropped ceiling
2 Recessed light
3 Attic entrance
4 Sill plates
5 Water and furnace flues
6 All ducts
7 Door frames
8 Chimney flashing
9 Window frames
10 Electrical outlets and switches
11 Plumbing and utility access

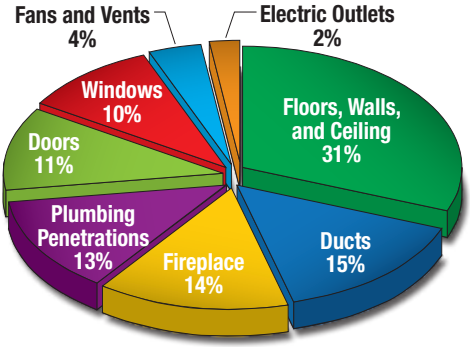
Sealing Air Leaks

Warm air leaking into your home during the summer and out of your home during the winter can waste a lot of your energy dollars. One of the quickest dollar-saving tasks you can do is caulk, seal, and weatherstrip all seams, cracks, and openings to the outside. You can save on your heating and cooling bill by reducing the air leaks in your home.

Tips for Sealing Air Leaks

- First, 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 locations where there is a possible air path to the outside. 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 penetrates through walls, floors, ceilings, and soffits over cabinets.
- Install foam gaskets behind outlet and switch plates on walls.
- Look for dirty spots in your insulation, which often indicate holes where air leaks into and out of your house. You can seal the holes with low-expansion spray foam made for this purpose.
- Look for dirty spots on your ceiling paint and carpet, which may indicate air leaks at interior wall/ceiling joints and wall/floor joists. These joints can be caulked.
- Install storm windows over single-pane windows or replace them with more efficient windows, such as double-pane. See Windows on page 18 for more information.
- When the fireplace is not in use, keep the flue damper tightly closed. A chimney is designed specifically for smoke to escape, so until you close it, warm air escapes—24 hours a day!
- For new construction, reduce exterior wall leaks by installing house wrap, taping the joints of exterior sheathing, and comprehensively caulking and sealing the exterior walls.
- Use foam sealant around larger gaps around windows, baseboards, and other places where warm air may be leaking out.
- Kitchen exhaust fan covers can keep air from leaking in when the exhaust fan is not in use. The covers typically attach via magnets for ease of replacement.



How Does the Air Escape?

Air infiltrates into and out of your home through every hole and crack. About one-third of this air infiltrates through openings in your ceilings, walls, and floors.

- Replacing existing door bottoms and thresholds with ones that have pliable sealing gaskets is a great way to eliminate conditioned air leaking out from underneath the doors.
- 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 hot or cold air loss. Inflatable chimney balloons are designed to fit beneath your fireplace flue during periods of non-use. They are made from several layers of durable plastic and can be removed easily and reused hundreds of times. Should you forget to remove the balloon before making a fire, the balloon will automatically deflate within seconds of coming into contact with heat.

Heating and Cooling

Heating and cooling your home uses more energy and drains more energy dollars than any other system in your home. Typically, 46% of your utility bill goes for heating and cooling. What's more, heating and cooling systems in the United States together emit 150 million tons of carbon dioxide into the atmosphere each year, adding to global climate change. They also generate about 12% of the nation's sulfur dioxide and 4% of the nitrogen oxides, the chief ingredients in acid rain.

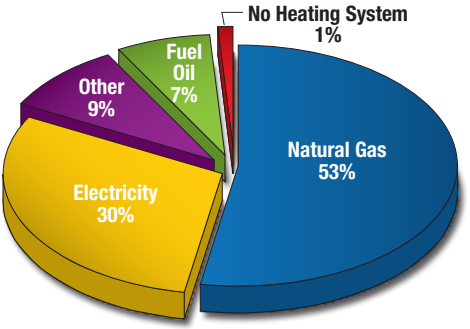
No matter what kind of heating, ventilation, and air-conditioning system you have in your house, you can save money and increase your comfort by properly maintaining and upgrading your equipment. But remember, an energy-efficient furnace alone will not have as great an impact on your energy bills as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

Heating and Cooling Tips

- Set your thermostat as low as is comfortable in the winter and as high as is comfortable in the summer.
- Clean or replace filters on furnaces once a month or as needed.
- Clean warm-air registers, baseboard heaters, and radiators as needed; make sure they're not blocked by furniture, carpeting, or drapes.
- Bleed trapped air from hot-water radiators once or twice a season; if in doubt about how to perform this task, call 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 the heating season, 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.
- During the cooling season, keep the window coverings closed during the day to prevent solar gain.

$ 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



Household Heating Systems
Although several different types of fuels are available to heat our homes, more than half of us use natural gas.

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 SEER or more.

Air Ducts

One of the most important systems in your home, though it's hidden beneath your feet and over your head, may be wasting a lot of your energy dollars. Your home's duct system, a branching network of tubes in the walls, floors, and ceilings, 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.

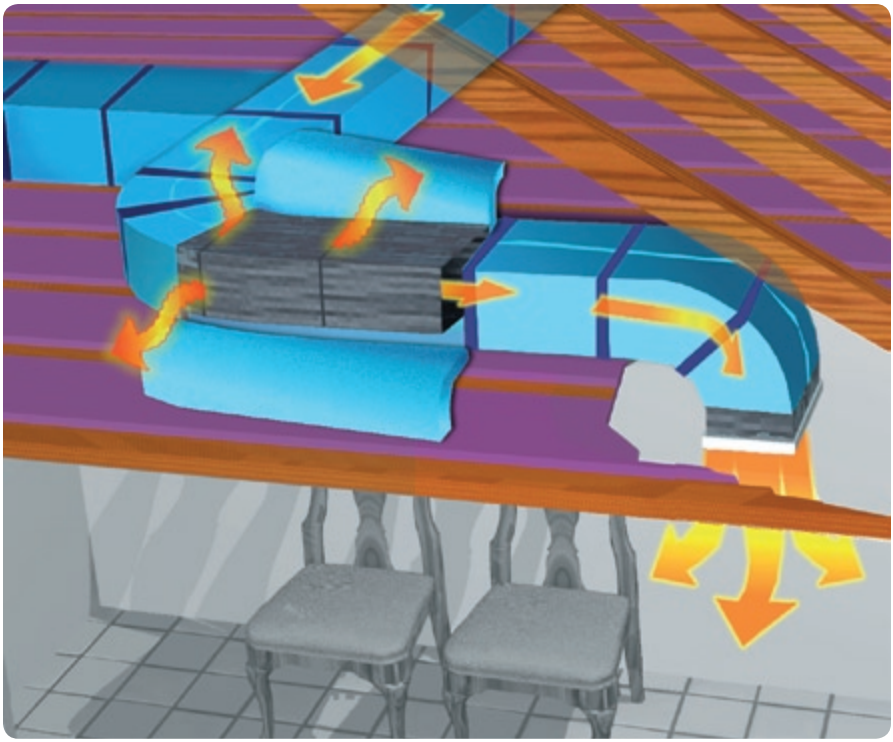
Unfortunately, many duct systems are poorly insulated or not insulated properly. Ducts that leak heated air into unheated spaces can add hundreds of dollars a year to your heating and cooling bills. Insulating ducts that are in unconditioned spaces is usually very cost effective. If you are buying a new duct system, consider one that comes with insulation already installed.

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. In the summer, hot attic air can be drawn in, increasing the load on the air conditioner. In the winter, your furnace will have to work longer to keep your house comfortable. Either way, your energy losses cost you money.

Although minor duct repairs are easy to make, ducts in unconditioned spaces should be sealed and insulated by qualified professionals using appropriate sealing materials. Here are a few simple tips to help with minor duct repairs.

Duct 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, which tends to fail quickly. Researchers recommend other products to seal ducts: mastic, butyl tape, foil tape, or other heat-approved tapes. Look for tape with the Underwriters Laboratories logo.
- Remember that insulating ducts in the basement will make the basement colder. If both the ducts and the basement walls are uninsulated, consider insulating both. Water pipes and drains in unconditioned spaces could freeze and burst in the space 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.



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 your basement has been converted to a living area, hire a professional to install both supply and return registers in the basement rooms.
- Be sure a well-sealed vapor barrier exists on the outside of the insulation on cooling ducts to prevent moisture buildup.
- When doing ductwork, be sure to get professional help. Changes and repairs to a duct system should always be performed by a qualified professional.
- Ducts that don't work properly can create serious, life-threatening carbon monoxide (CO) problems in the home. Install a CO monitor to alert you to harmful CO levels if you have a fuel-burning furnace, stove or other appliance, or an attached garage.

Install a Carbon Monoxide Detector

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

$ Long-Term Savings Tip

- You can lose up to 60% of your heated air before it reaches the register if your ducts aren't insulated and travel through unheated spaces such as the attic or crawlspace. Get a qualified professional to help you insulate and repair ducts.

Heat Pumps

Heat pumps are the most efficient form of electric heating in moderate climates, providing three times more heating than the equivalent amount of energy they consume in electricity. There are three types of heat pumps: air-to-air, water source, and ground source. They collect heat from the air, water, or ground outside your home and concentrate it for use inside. Heat pumps do double duty as a central air conditioner. They can also cool your home by collecting the heat inside your house and effectively pumping it outside. A heat pump can trim the amount of electricity you use for heating by as much as 30% to 40%.

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.
- 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 use electricity to heat your home and live in a moderate climate, consider installing an energy- efficient heat pump system.

Solar Heating and Cooling

Using passive solar design techniques to heat and cool your home can be both environmentally friendly and cost effective. Passive solar heating techniques include placing larger, insulated windows on south-facing walls and locating thermal mass, such as a concrete slab floor or a heat-absorbing wall, close to the windows. In many cases, your heating costs could be more than 50% lower than the cost of heating the same house that does not include passive solar design.

Passive solar design can also help reduce your cooling costs. Passive solar cooling techniques include carefully designed overhangs, windows with reflective coatings, and reflective coatings on exterior walls and the roof.

A passive solar house requires careful design and site orientation, which depend on the local climate. So, if you are considering passive solar design for new construction or a major remodeling, you should consult an architect familiar with passive solar techniques.

Solar Tips

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

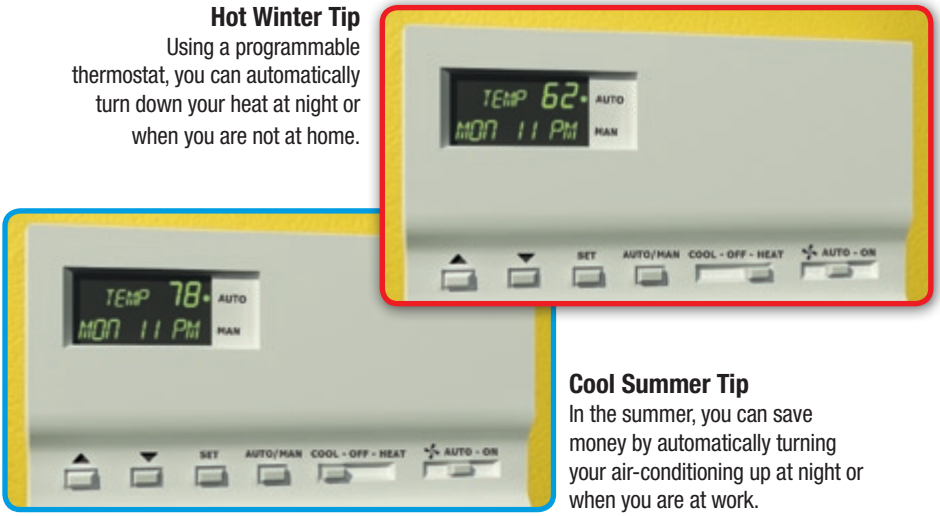
Natural Gas and Oil Heating

If you plan to buy a new heating system, ask your local utility or state energy office for information about the latest technologies available to consumers. They can advise you about more efficient systems on the market today. For example, many newer models incorporate designs for burners and heat exchangers that result in higher efficiencies during operation and reduce heat loss when the equipment is off. Consider a sealed combustion furnace; they are both safer and more efficient. Check the shopping guide in the back of this booklet for additional information on how to understand heating system ratings.

$ 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.

Hot Winter Tip
Using a programmable thermostat, you can automatically turn down your heat at night or when you are not at home.



Cool Summer Tip
In the summer, you can save money by automatically turning your air-conditioning up at night or when you are at work.

Programmable Thermostats

You can save as much as 10% a year on your heating and cooling bills by simply turning your thermostat back 10% to 15% for 8 hours. You can do this automatically by installing an automatic setback or programmable thermostat.

Using a programmable thermostat, you can adjust the times you turn on the heating or air-conditioning according to a preset schedule. As a result, the equipment doesn't operate as much when you are asleep or when the house, or a part of it, is not occupied. Programmable thermostats can store and repeat multiple daily settings (six or more temperature settings a day) that you can manually override without affecting the rest of the daily or weekly program. When shopping for a programmable thermostat, be sure to look for the ENERGY STAR label.

Air Conditioners

Buying a bigger room air-conditioning unit won't necessarily make you feel more comfortable during the hot summer months. In fact, a room air conditioner that's too big for the area it is supposed to cool will perform less efficiently and less effectively than a smaller, properly sized unit.

Sizing is equally important for central air-conditioning systems, which need to be sized by professionals. If you have a central air system in your home, set the fan to shut off at the same time as the cooling unit (compressor). In other words, don't use the system's central fan to provide circulation, but instead use circulating fans in individual rooms.

Cooling Tips

- Whole-house fans help cool your home by pulling cool air through the house and exhausting warm air through the attic.
- Set your thermostat as high as comfortably possible in the summer. The smaller the difference between the indoor and outdoor temperatures, the lower your overall cooling bill will be.
- Avoid setting your thermostat at a colder setting than normal when you turn on your air conditioner. It will not cool your home any faster and could result in excessive cooling and, therefore, unnecessary expense.

Buildings and Trees—Natural Partners
Deciduous trees planted on the south and west sides will help keep your house cool in the summer and allow sun to shine in the windows in the winter.

- Consider using an interior fan in conjunction with your window air conditioner to spread the cooled air more effectively through your home without greatly increasing your power use.
- Avoid placing lamps or TV sets near your air-conditioning thermostat. The thermostat senses heat from these appliances, which can cause the air conditioner to run longer than necessary.
- Plant trees or shrubs to shade air conditioning units but not to block the airflow. Place your room air conditioner on the north side of the house. A unit operating in the shade uses as much as 10% less electricity than the same one operating in the sun.

$ Long-Term Savings Tips

- If your air conditioner is old, consider purchasing a new, energy-efficient model. You could save up to 50% on your utility bill for cooling. Look for the ENERGY STAR and EnergyGuide labels. The shopping guide in the back of this booklet will help you find the right size unit for your needs.
- Consider installing a whole-house fan or evaporative cooler if appropriate for your climate. Check out www.energysavers.gov for more information on efficient cooling.

Landscaping

Landscaping is a natural and beautiful way to keep your home cool in summer and reduce your energy bills. A well-placed tree, shrub, or vine can deliver effective shade, act as a windbreak, and reduce your energy bills. Carefully positioned trees can save up to 25% of the energy a typical household uses for energy. Research shows that summer daytime air temperatures can be 3° to 6° cooler in tree-shaded neighborhoods than in treeless areas.

A lattice or trellis with climbing vines, or a planter box with trailing vines, shades the home's perimeter while admitting cooling breezes to the shaded area.

Water Heating

Water heating is the third largest energy expense in your home. It typically accounts for about 13%–17% of your utility bill. There are four ways to cut your water heating bills: use less hot water, turn down the thermostat on your water heater, insulate your water heater, or buy a new, more efficient model.

Water Heating Tips

- Install aerating, low-flow faucets and showerheads.
- Repair leaky faucets promptly; a leaky faucet wastes gallons of water in a short period of time.
- Lower the thermostat on your water heater; water heaters sometimes come from the factory with high temperature settings, but a setting of 120°F provides comfortable hot water for most uses.
- Insulate your electric hot-water storage tank, but be careful not to cover the thermostat. Follow the manufacturer's recommendations.
- Insulate your natural gas or oil hot-water storage tank, but be careful not to cover the water heater's top, bottom, thermostat, or burner compartment. Follow the manufacturer's recommendations; when in doubt, get professional help.
- Insulate the first 6 feet of the hot and cold water pipes connected to the water heater.
- If you are in the market for a new dishwasher or clothes washer, consider buying an efficient, water-saving ENERGY STAR model to reduce hot water use. See Appliances on page 22 for more information.

Keep Your Energy Bills Out of Hot Water
Insulate your water heater to save energy and money.

- Install heat traps on the hot and cold pipes at the water heater to prevent heat loss. Some new water heaters have built-in heat traps.
- Drain a quart of water from your water tank every 3 months to remove sediment that impedes heat transfer and lowers the efficiency of your heater. The type of water tank you have determines the steps to take, so follow the manufacturer's advice.

- Although most water heaters last 10–15 years, it's best to start shopping now for a new one if yours is more than 7 years old. Doing some research before your heater fails will enable you to select one that most appropriately meets your needs.

$ Long-Term Savings Tips

- Buy a new energy-efficient water heater. While it may cost more initially than a standard water heater, the energy savings will continue during the lifetime of the appliance. Look for the ENERGY STAR and EnergyGuide labels.
- Look for the ENERGY STAR label on efficient water heaters in the following categories: high efficiency gas non-condensing, gas condensing, electric heat pump, gas tankless, and solar.
- Consider installing a drain water waste heat recovery system. A recent DOE study showed energy savings of 25% to about 30% for water heating using such a system.
- Consider natural gas on-demand or tankless water heaters. Researchers have found savings can be up to 30% compared with a standard natural gas storage tank water heater.
- Heat pump water heaters can be very cost-effective in some areas.

Solar Water Heaters

If you heat water with electricity, have high electric rates, and have an unshaded, south-facing location (such as a roof) on your property, consider installing an ENERGY STAR qualified solar water heater. The solar units are environmentally friendly and can now be installed on your roof to blend with the architecture of your house.

Activity	Gallons per Use
Clothes washing	32
Showering	20
Bathing	20
Automatic dishwashing	12
Preparing food	5
Hand dishwashing	4

Source: ACEEE

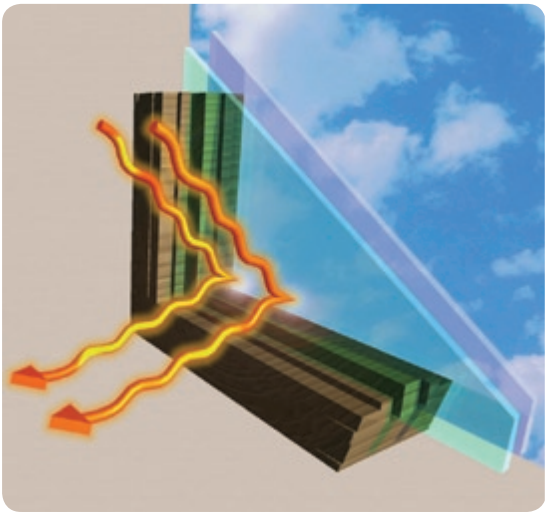
More than 1.5 million homes and businesses in the United States have invested in solar water heating systems, and surveys indicate that more than 94% of these customers consider the systems a good investment. Solar water heating systems are also good for the environment. Solar water heaters avoid the greenhouse gas emissions associated with electricity production. During a 20-year period, one solar water heater can avoid more than 50 tons of carbon dioxide emissions. When shopping for a solar water heater, look for the ENERGY STAR label and for systems certified by the Solar Rating and Certification Corporation or the Florida Solar Energy Center.

$ Long-Term Savings Tip

- Visit the Database of State Incentives for Renewables & Efficiency Web site (www.dsireusa.org) to see if you might qualify for tax credits or rebates for buying a solar water heater.

Windows

Windows can be one of your home's most attractive features. Windows provide views, daylighting, ventilation, and solar heating in the winter. Unfortunately, they can also account for 10% to 25% of your heating bill. During the summer, your air conditioner must work harder to cool hot air from sunny windows. Install ENERGY STAR windows and use curtains and shade to give your air conditioner and energy bill a break. If you live in the Sun Belt, look into low-e windows, which can cut the cooling load by 10% to 15%.



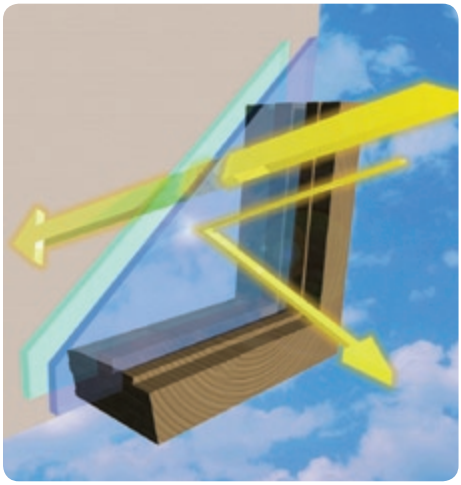
Cold-Climate Windows Keep Heat In
Double-pane windows with low-e coating on the glass reflect heat back into the room during the winter months.

If your home has single-pane windows, as many U.S. homes do, consider replacing them with new double-pane windows with high-performance glass (e.g., low-e or spectrally selective). In colder climates, select windows that are gas filled with low emissivity (low-e) coatings on the glass to reduce heat loss. In warmer climates, select windows with spectrally selective coatings to reduce heat gain. If you are building a new home, you can offset some of the cost of installing more efficient windows because they allow you to buy smaller, less expensive heating and cooling equipment.

If you decide not to replace your windows, the simpler, less costly measures listed here can improve their performance.

Cold-Climate Window Tips

- You can use a heavy-duty, clear plastic sheet on a frame or tape clear plastic film to the inside of your window frames during the cold winter months. Remember, the plastic must be sealed tightly to the frame to help reduce infiltration.
- Install tight-fitting, insulating window shades on windows that feel drafty after weatherizing.
- Close your curtains and shades at night; open them during the day.
- Keep windows on the south side of your house clean to let in the winter sun.
- Install exterior or interior storm windows; storm windows can reduce heat loss through the windows by 25% to 50%. Storm windows should have weatherstripping at all movable joints; be made of strong, durable materials; and have interlocking or overlapping joints. Low-e storm windows save even more energy.



Warm-Climate Windows Keep Heat Out
In the summertime, the sun shining through your windows heats up the room. Windows with low-e coatings on the glass reflect some of the sunlight, keeping your rooms cooler.

- Repair and weatherize your current storm windows, if necessary.

Warm-Climate Window Tips

- Install white window shades, drapes, or blinds to reflect heat away from the house.
- Close curtains on south- and west-facing windows during the day.
- Install awnings on south- and west-facing windows.
- Apply sun-control or other reflective films on south-facing windows to reduce solar gain.

$ Long-Term Savings Tip

- Installing, high-performance windows will improve your home's energy performance. While it may take many years for new windows to pay off in energy savings, the benefits of added comfort and improved aesthetics and functionality may make the investment worth it to you. Many window technologies are available that are worth considering.

Efficient windows may have two or more panes of glass, warm-edge spacers between the window panes, improved framing materials, and low-e coating(s), which are microscopically thin coatings that help keep heat inside during the winter and outside during the summer.

Shopping Tips for Windows

- Look for the ENERGY STAR label.
- Check with local utilities to see what rebates or other financial incentives are available for window replacement.
- High-performance windows have at least two panes of glass and a low-e (low emissivity) coating.
- Remember, the lower the U-factor, the better the insulation. In colder climates, focus on finding a low U-factor.
- Low solar heat gain coefficients (SHGCs) reduce heat gain. In warm climates, look for a low SHGC.
- In temperate climates with both heating and cooling seasons, select windows with both low U-factors and low SHGCs to maximize energy savings.
- Look for whole-unit U-factors and SHGCs, rather than center-of-glass, or COG, U-factors and SHGCs. Whole-unit numbers more accurately reflect the energy performance of the entire product.
- Have your windows installed by trained professionals. Be sure they're installed according to manufacturer's instructions; otherwise, your warranty may be void.

Lighting

Making improvements to your lighting is one of the fastest ways to cut your energy bills. An average household dedicates 10% of its energy budget to lighting. Using new lighting technologies can reduce lighting energy use in your home by 50% to 75%. Advances in lighting controls offer further energy savings by reducing the amount of time lights are on but not being used.

Compact Fluorescent Bulbs—A Bright Idea!

ENERGY STAR qualified lighting provides bright, warm light and uses about 75% less energy than standard lighting, produces 75% less heat, and lasts up to 10 times longer.

Indoor Lighting

Use linear fluorescent tubes and energy efficient compact fluorescent light bulbs (CFLs) in fixtures throughout your home to provide high-quality and high-efficiency lighting. Fluorescent lamps are much more efficient than incandescent (standard) bulbs and last about 6 to 12 times longer.

Today's CFLs offer brightness and color rendition that is comparable to incandescent bulbs. Although linear fluorescent and CFLs cost a bit more than incandescent bulbs initially, over their lifetime they are cheaper because of how little electricity they use. CFL lighting fixtures are now available that are compatible with dimmers and operate like incandescent fixtures.

Indoor Lighting Tips

- Be sure to buy ENERGY STAR qualified CFLs.
  - They will save you about $30 or more in electricity costs over each bulb's lifetime.
  - Producing about 75% less heat, they are safer to operate and can cut home cooling costs.
  - Visit www.energystar.gov to find the right light bulbs for your fixtures. They are available in sizes and shapes to fit in almost any fixture.
  - They provide the greatest savings in fixtures that are on for a long time each day. The best fixtures to use qualified CFLs in are usually found in your family and living rooms, kitchen, dining room, bedrooms, and outdoors.
- Consider purchasing ENERGY STAR qualified fixtures. They are available in many styles including table, desk and floor lamps — and hard-wired options for front porches, dining rooms, bathroom vanity fixtures, and more.

CFLs contain a very small amount of mercury sealed within the glass tubing. Many retailers are offering free recycling services for consumers at their stores.

ENERGY STAR qualified CFLs are available in sizes and shapes to fit in almost any fixture.

- ENERGY STAR qualified fixtures distribute light more efficiently and evenly than standard fixtures and they deliver convenient features such as dimming on some indoor models.
- Controls such as timers and photo cells save electricity by turning lights off when not in use. Dimmers save electricity when used to lower light levels. Be sure to select products that are compatible with CFL bulbs; not all products work with CFLs.
- When remodeling, look for recessed downlights, or "cans", that are rated for contact with insulation (IC rated).
- Take advantage of daylight by using light-colored, loose-weave curtains on your windows to allow daylight to penetrate the room while preserving privacy. Also, decorate with lighter colors that reflect daylight.
- If you have torchiere fixtures with halogen lamps, consider replacing them with compact fluorescent torchieres. Compact fluorescent torchieres use 60% to 80% less energy and do not get as hot as halogen torchieres.

Outdoor Lighting

Many homeowners use outdoor lighting for decoration and security. When shopping for outdoor lights, you will find a variety of products, from low-voltage pathway lighting to motion-detector floodlights. Light emitting diodes, or LEDs, thrive in outdoor environments because of their durability and performance in cold weather. Look for ENERGY STAR LED products such as pathway lights, step lights, and porch lights for outdoor use.

Outdoor Lighting Tips

- Because outdoor lights are usually left on a long time, using CFLs in these fixtures will save a lot of energy. Most bare spiral CFLs can be used in enclosed fixtures that protect them from the weather.
- CFLs are also available as flood lights. These models have been tested to withstand the rain and snow so they can be used in exposed fixtures. Most though, cannot be used with motion detectors.
- Look for ENERGY STAR qualified fixtures that are designed for outdoor use and come with features like automatic daylight shut-off and motion sensors.

LED—A New Kind of Light

Light emitting diodes, or LEDs, offer better light quality than incandescent bulbs, last 25 times as long, and use even less energy than CFLs. Look for ENERGY STAR qualified LED products at home improvement centers and lighting showrooms.

Appliances

Appliances account for about 17% of your household's energy consumption, with refrigerators, clothes washers, and clothes dryers at the top of the consumption list.

When you're shopping for appliances, think of two price tags. The first one covers the purchase price—think of it as a down payment. The second price tag is the cost of operating the appliance during its lifetime. You'll be paying on that second price tag every month with your utility bill for the next 10 to 20 years, depending on the appliance. Refrigerators last an average of 14 years; clothes washers about 11 years; dishwashers about 10 years; and room air conditioners last 9 years.

When you do shop for a new appliance, look for the ENERGY STAR label. ENERGY STAR products usually exceed minimum federal standards by a substantial amount. The appliance shopping guide on pages 27 and 28 lists some of the major appliances that carry the ENERGY STAR label and provides helpful information on what to look for when shopping for an appliance.

To help you figure out whether an appliance is energy efficient, the federal government requires most appliances to display the bright yellow and black EnergyGuide label. Although these labels will not tell you which appliance is the most efficient, they will tell you the annual energy consumption and operating cost for each appliance so you can compare them yourself. The American Council for an Energy-Efficient Economy lists the energy performance of top-rated energy-saving appliances on its web site: www.aceee.org.

Dishwashers

Most of the energy used by a dishwasher is for water heating. The EnergyGuide label estimates how much power is needed per year to run the appliance and to heat the water based on the yearly cost of natural gas and electric water heating.

What's the Real Cost?
Every appliance has two price tags—the purchase price and the operating cost. Consider both when buying a new appliance.

What's a kilowatt?

When you use electricity to cook a pot of rice for 1 hour, you use 1000 watt-hours of electricity! One thousand watt-hours equals 1 kilowatt-hour, or 1 kWh. Your utility bill usually shows what you are charged for the kilowatt-hours you use. The average residential rate is 9.4 cents per kWh. A typical U.S. household consumes about 11,000 kWh per year, costing an average of $1,034 annually.

Dishwasher Tips

- Check the manual that came with your dishwasher for the manufacturer's recommendations on water temperature; many have internal heating elements that allow you to set the water heater in your home to a lower temperature (120°F).
- Scrape, don't rinse, off large food pieces and bones. Soaking or prewashing is generally only recommended in cases of burned-on or dried-on food.
- Be sure your dishwasher is full, but not overloaded, when you run it.
- Avoid using the "rinse hold" on your machine for just a few soiled dishes. It uses 3 to 7 gallons of hot water each time you use it.
- Let your dishes air dry; if you don't have an automatic air-dry switch, turn off the control knob after the final rinse and prop the door open slightly so the dishes will dry faster.

$ Long-Term Savings Tip

- When shopping for a new dishwasher, look for the ENERGY STAR label to find a dishwasher that uses less water and 41% less energy than required by federal standards.

Refrigerators

The EnergyGuide label on new refrigerators tells you how much electricity in kilowatt-hours (kWh) a particular model uses in one year. The smaller the number, the less energy the refrigerator uses and the less it will cost you to operate. In addition to the EnergyGuide label, don't forget to look for the ENERGY STAR label. A new refrigerator with an ENERGY STAR label uses at least 20% less energy than required by current federal standards and 40% less energy than the conventional models sold in 2001.

How to Read the EnergyGuide Label

The EnergyGuide label gives you two important pieces of information you can use to compare different brands and models when shopping for a new refrigerator:

- Estimated yearly operating cost based on the national average cost of electricity.
- Estimated energy consumption on a scale showing a range for similar models

Refrigerator/Freezer Energy Tips

- Look for a refrigerator with automatic moisture control. Models with this feature have been engineered to prevent moisture accumulation on the cabinet exterior without the addition of a heater. This is not the same thing as an "anti-sweat" heater. Models with an anti-sweat heater will consume 5% to 10% more energy than models without this feature.
- Don't keep your refrigerator or freezer too cold. Recommended temperatures are 37° to 40°F for the fresh food compartment of the refrigerator and 5°F for the freezer section. If you have a separate freezer for long-term storage, it should be kept at 0°F.
- To check refrigerator temperature, place an appliance thermometer in a glass of water in the center of the refrigerator. Read it after 24 hours. To check the freezer temperature, place a thermometer between frozen packages. Read it after 24 hours.
- Regularly defrost manual-defrost refrigerators and freezers; frost buildup decreases the energy efficiency of the unit. Don't allow frost to build up more than one-quarter of an inch.
- Make sure your refrigerator door seals are airtight. Test them by closing the door over a piece of paper or a dollar bill so it is half in and half out of the refrigerator. If you can pull the paper or bill out easily, the latch may need adjustment, the seal may need replacing, or you might consider buying a new unit.
- Cover liquids and wrap foods stored in the refrigerator. Uncovered foods release moisture and make the compressor work harder.

$ Long-Term Savings Tip

- Look for the ENERGY STAR label when buying a new refrigerator. Select a new refrigerator that is the right size for your household. Top freezer models are more energy efficient than side-by-side models. Features like icemakers and water dispensers, while convenient, will increase energy use.

ENERGY STAR Refrigerators Are Cool!
Refrigerators with the freezer on the top are more efficient than those with freezers on the side.

Other Energy-Saving Kitchen Tips

- Be sure to place the faucet lever on the kitchen sink in the cold position when using small amounts of water; placing the lever in the hot position uses energy to heat the water even though it may never reach the faucet.
- If you need to purchase a natural gas oven or range, look for one with an automatic, electric ignition system. An electric ignition saves natural gas because a pilot light is not burning continuously.
- In natural gas appliances, look for blue flames; yellow flames indicate the gas is burning inefficiently and an adjustment may be needed. Consult the manufacturer or your local utility.
- Keep range-top burners and reflectors clean; they will reflect the heat better, and you will save energy.
- Use a covered kettle or pan to boil water; it's faster and it uses less energy.
- Match the size of the pan to the heating element.
- Use small electric pans or toaster ovens for small meals rather than your large stove or oven. A toaster oven uses a third to half as much energy as a full-sized oven.
- Use pressure cookers and microwave ovens whenever it is convenient to do so. They will save energy by significantly reducing cooking time.

Laundry

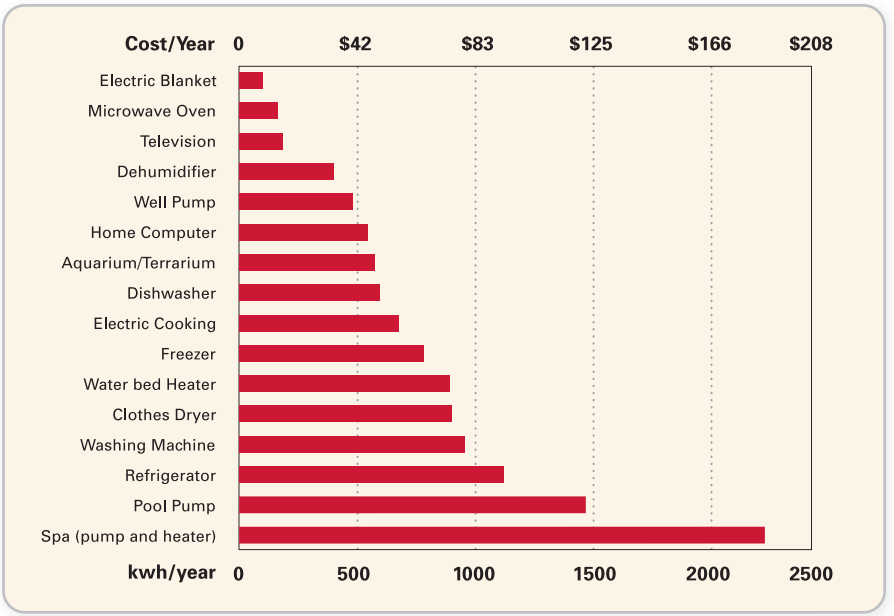
About 90% of the energy used for washing clothes in a conventional top-load washer is for heating the water. There are two ways to reduce the amount of energy used for washing clothes—use less water and use cooler water. Unless you're dealing with oily stains, the warm or cold water setting on your machine will generally do a good job of cleaning your clothes. Switching your temperature setting from hot to warm can cut a load's energy use in half.

Laundry Tips

- Wash your clothes in cold water using cold-water detergents whenever possible.
- Wash and dry full loads. If you are washing a small load, use the appropriate water-level setting.
- Dry towels and heavier cottons in a separate load from lighter-weight clothes.
- Don't over-dry your clothes. If your machine has a moisture sensor, use it.
- Clean the lint filter in the dryer after every load to improve air circulation.
- Use the cool-down cycle to allow the clothes to finish drying with the residual heat in the dryer.
- Periodically inspect your dryer vent to ensure it is not blocked. This will save energy and may prevent a fire. Manufacturers recommend using rigid venting material, not plastic vents that may collapse and cause blockages.
- Consider air-drying clothes on clothes lines or drying racks. Air-drying is recommended by clothing manufacturers for some fabrics.

$ Long-Term Savings Tips

- Look for the ENERGY STAR and EnergyGuide labels. ENERGY STAR clothes washers clean clothes using 50% less energy than standard washers. Most full-sized ENERGY



How Much Electricity Do Appliances Use?

This chart shows how much energy a typical appliance uses per year and its corresponding cost based on national averages. For example, a refrigerator uses almost five times the electricity the average television uses. Visit www.energysavers.gov for instructions on calculating the electrical use of your appliances.

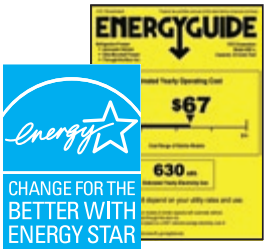
STAR washers use 15 gallons of water per load, compared to the 32.5 gallons used by a new standard machine. ENERGY STAR models also spin the clothes better, resulting in less drying time.

- When shopping for a new clothes dryer, look for one with a moisture sensor that automatically shuts off the machine when your clothes are dry. Not only will this save energy, it will save the wear and tear on your clothes caused by over-drying.
- ENERGY STAR does not label clothes dryers because most of them use similar amounts of energy, which means there is little difference in energy use between models.

Save Energy and More with ENERGY STAR
ENERGY STAR clothes washers use 50% less energy to wash clothes than standard washing machines.

Major Appliance Shopping Guide

This easy-to-read guide may help you understand how appliances are rated for efficiency, what the ratings mean, and what to look for while shopping for new appliances.



Appliances	Rating	Special Considerations
Natural Gas and Oil Systems	Look for the FTC (Federal Trade Commission) EnergyGuide label with an AFUE (Annual Fuel Utilization Efficiency) rating for natural gas- and oil-fired furnaces and boilers. The AFUE measures the seasonal or annual efficiency. ENERGY STAR furnaces have a 90 AFUE or higher.	Bigger is not always better! Too large a system costs more and operates inefficiently. Have a professional assess your needs and recommend the type and size of system you should purchase.
Air-Source Heat Pumps	Look for the EnergyGuide label that lists the SEER (Seasonal Energy Efficiency Ratio) and HSPF (Heating Seasonal Performance Factor) for heat pumps. The SEER measures the energy efficiency during the cooling season and HSPF measures the efficiency during the heating season. The ENERGY STAR minimum efficiency level is 13 SEER or higher.	If you live in a cool climate, look for a heat pump with a high HSPF. ENERGY STAR heat pumps are about 20% more efficient than standard models. Contact a professional for advice on purchasing a heat pump.
Central Air Conditioners	Look for the EnergyGuide label with a SEER for central air conditioners. The ENERGY STAR minimum efficiency level is 13 SEER.	Air conditioners that bear the ENERGY STAR label may be 25% more efficient than standard models. Contact a professional for advice on sizing a central air system.
Room Air Conditioners	Look for the EnergyGuide label with an EER (Energy Efficiency Ratio) for room air conditioners. The higher the EER, the more efficient the unit is. ENERGY STAR units are among the most energy-efficient products.	**What size to buy?** **Area in square feet** / **Btu/ hour** 100 to 150 — 5,000 150 to 250 — 6,000 250 to 350 — 7,000 350 to 450 — 9,000 400 to 450 — 10,000 450 to 550 — 12,000 550 to 700 — 14,000 700 to 1,000 — 18,000 Two major factors should guide your purchase: correct size and energy efficiency. If the room is very sunny, increase capacity by 10%. If the unit is for a kitchen, increase the capacity by 4,000 Btu per hour.

Appliances	Rating	Special Considerations
Programmable Thermostats	For minimum ENERGY STAR efficiency, thermostats should have at least two programs, four temperature settings each, a hold feature that allows users to temporarily override settings, and the ability to maintain room temperature within 2ºF of desired temperature.	Look for a the ENERGY STAR label and a thermostat that allows you to easily use two separate programs, one that can be programmed to reach the desired temperature at a specific time, and a hold feature that temporarily overrides the setting without deleting the preset programs.
Water Heaters	Look for the EnergyGuide label that tells how much energy the water heater uses in one year. Also, look for the FHR (first hour rating) of the water heater, which measures the maximum hot water the heater will deliver in the first hour of use. ENERGY STAR labeled water heaters available January 2009.	If you typically need a lot of hot water at once, the FHR will be important to you. Sizing is important—call your local utility for advice.
Windows	Look for the NFRC (National Fenestration Rating Council) label that provides U-values and SHGC (solar heat gain coefficient) values. The lower the U-value, the better the insulation.	Look at the Climate Region Map on the ENERGY STAR label to be sure that the window, door, or skylight you have selected is appropriate for where you live.
Refrigerators and Freezers	Look for the EnergyGuide label that tells how much electricity, in kWh, the refrigerator will use in one year. The smaller the number, the less energy it uses. ENERGY STAR refrigerators use at least 20% less energy than required by federal standards.	Look for energy-efficient refrigerators and freezers. Refrigerators with freezers on top are more efficient than those with freezers on the side. Also look for heavy door hinges that create a good door seal.
Dishwashers	Look for the EnergyGuide label that tells how much electricity, in kWh, the dishwasher will use in one year. The smaller the number, the less energy it uses. ENERGY STAR dishwashers use at least 41% less energy than required by federal standards.	Look for features that will reduce water use, such as booster heaters and smart controls. Ask how many gallons of water the dishwasher uses during different cycles. Dishwashers that use the least amount of water will cost the least to operate.
Clothes Washers	Look for the EnergyGuide label that tells how much electricity, in kWh, the clothes washer will use in one year. The smaller the number, the less energy is uses. ENERGY STAR clothes washers use less than 50% of the energy used by standard washers.	Look for the following design features that help clothes washers cut water usage: water level controls, “suds-saver” features, spin cycle adjustments, and large capacity. For double the efficiency, buy an ENERGY STAR unit.

Home Office and Home Electronics

In the U.S., nearly 4.2 million people worked from home in 2000, up from 3.4 million in 1990. Working from home saves energy and time by cutting out the commute, but it may increase your home energy bills a lot unless you use energy-saving office equipment.

ENERGY STAR labeled office equipment is widely available: it provides users with dramatic savings, as much as 90% savings for some products. Overall, ENERGY STAR labeled office products use about half the electricity of standard equipment. Along with saving energy directly, this equipment can reduce air-conditioning loads, noise from fans and transformers, and electromagnetic field emissions from monitors.

Shop for ENERGY STAR Products for Offices

- **Computers**
- **Copiers**
- **Fax Machines**
- **Monitors**
- **Multifunction Devices (fax, scanner, copier)**
- **Printers**
- **Scanners**

Home Office Tips

- Selecting energy-efficient office equipment—personal computers (PCs), monitors, copiers, printers, and fax machines—and turning off machines when they are not in use can result in enormous energy savings.
- An ENERGY STAR labeled computer uses 70% less electricity than computers without this designation. If left inactive, ENERGY STAR labeled desktop computers enter a sleep mode and use 4 watts or less.

Keep Your Home Office Efficient with ENERGY STAR
Home offices are increasingly popular. Be sure to use ENERGY STAR office equipment to save electricity.

Spending a large portion of time in low-power mode not only saves energy, but helps equipment run cooler and last longer.

- To maximize savings with a laptop, put the AC adapter on a power strip that can be turned off (or will turn off automatically); the transformer in the AC adapter draws power continuously, even when the laptop is not plugged into the adapter.
- Common misconceptions sometimes account for the failure to turn off equipment. Many people believe that equipment lasts longer if it is never turned off. This incorrect perception carries over from the days of older mainframe computers.
- ENERGY STAR labeled computers and monitors save energy only when the power management features are activated, so make sure power management is activated on your computer.
- There is a common misconception that screen savers reduce energy use by monitors; they do not. Automatic switching to sleep mode or manually turning monitors off is always the better energy-saving strategy.

$ Long-Term Savings Tip

- Consider buying a laptop for your next computer upgrade; they use much less energy than desktop computers.

Home Electronics Tips

- Look for energy-saving ENERGY STAR labeled home electronics.
- Many appliances continue to draw a small amount of power when they are switched off. These "phantom" loads occur in most appliances that use electricity, such as VCRs, televisions, stereos, computers, and kitchen appliances. These phantom loads can be avoided by unplugging the appliance or using a power strip and using the switch on the power strip to cut all power to the appliance.
- Unplug battery chargers when the batteries are fully charged or the chargers are not in use.
- Studies have shown that using rechargeable batteries for products like cordless phones and PDAs is more cost effective than throwaway batteries. If you must use throaways, check with your trash removal company about safe disposal options.

Shop for ENERGY STAR Home Electronics

- Cordless Phones
- Televisions
- VCRs and DVD Players
- Combination Units (TV/VCR; TV/DVD)
- Home Audio
- Set-Top Boxes

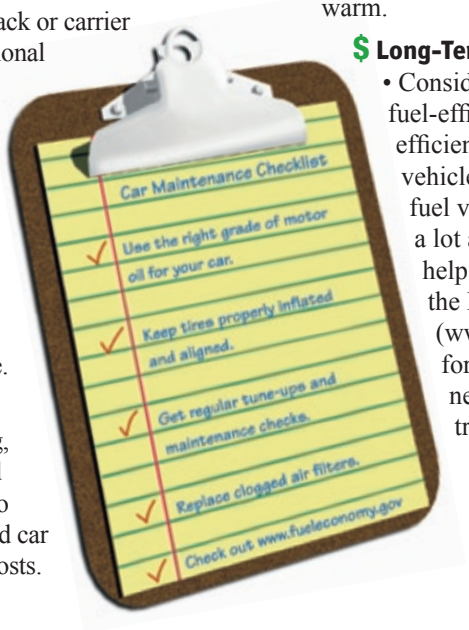
Smart power strips help save wasted energy.

Driving and Car Maintenance

Transportation accounts for 67% of U.S. oil use—mainly in the form of gasoline. Luckily, there are plenty of ways to improve gas mileage.

Driving Tips

- Idling gets you 0 miles per gallon. The best way to warm up a vehicle is to drive it. No more than 30 seconds of idling on winter days is needed. Anything more simply wastes fuel and increases emissions.
- Aggressive driving (speeding, rapid acceleration, and hard braking) wastes gas. It can lower your highway gas mileage 33% and city mileage 5%.
- Avoid high speeds. Above 60 mph, gas mileage drops rapidly.
- Clear out your car; extra weight decreases gas mileage by 1% to 2% for every 100 pounds.
- Reduce drag by placing items inside the car or trunk rather than on roof racks. A roof rack or carrier provides additional cargo space and may allow you to buy a smaller car. However, a loaded roof rack can decrease your fuel economy by 5% or more.
- Check into telecommuting, carpooling and public transit to cut mileage and car maintenance costs.



Car Maintenance Tips

- Use the grade of motor oil recommended by your car's manufacturer. Using a different motor oil can lower your gasoline mileage by 1% to 2%.
- Keep tires properly inflated and aligned to improve your gasoline mileage by around 3.3%.
- Get regular engine tune-ups and car maintenance checks to avoid fuel economy problems due to worn spark plugs, dragging brakes, low transmission fluid, or transmission problems.
- Replace clogged air filters to improve gas mileage by as much as 10% and protect your engine.
- Combine errands into one trip. Several short trips, each one taken from a cold start, can use twice as much fuel as one trip covering the same distance when the engine is warm.

$ Long-Term Savings Tip

- Consider buying a highly fuel-efficient vehicle. A fuel-efficient vehicle, a hybrid vehicle, or an alternative fuel vehicle could save you a lot at the gas pump and help the environment. See the Fuel Economy Guide (www.fueleconomy.gov) for more on buying a new fuel-efficient car or truck.

Renewable Energy

You have many options for using renewable energy at home—from solar-powered outdoor lights to buying renewable energy from your utility to even producing solar electricity at home with photovoltaic (PV) cells.

Renewable Energy Tips

- A new home provides the best opportunity for designing and orienting the home to take advantage of the sun's rays. A well-oriented home admits low-angle winter sun to reduce heating bills and rejects overhead summer sun to reduce cooling bills. See the Heating and Cooling section for more about using passive solar energy in your home.
- Many U.S. consumers buy electricity made from renewable energy sources like the sun, wind, water, plants, and Earth's internal heat. This power is sometimes called "green power." Buying green power from the utility is one of the easiest ways to use renewable energy without having to invest in equipment or take on extra maintenance.
- Another use of solar power is for heating water. Solar water heating is covered in the Water Heating section on page 16. If you have a swimming pool or hot tub, you can use solar power to cut pool heating costs. Most solar pool heating systems are cost competitive with conventional systems. And solar pool systems have very low operating costs. It's actually the most cost-effective use of solar energy.

$ Long-Term Savings Tip

- If you've made your home as energy efficient as possible, and you have very high electricity bills and a good solar resource, you might want to consider generating your own electricity using PV cells. New products are available that integrate PV cells with the roof, making them much less visible than older systems.

If the following conditions apply, you might want to do more research to see if investing in PV is right for you:

- Your site has adequate solar resources.
- A grid connection is not available in your area or can be made only through an expensive power line extension.

Solar-Powered Outdoor Lighting
Installing solar lighting around your home and garden is quick and easy with an added bonus—no wires or electricity costs!

- You are willing to pay more up front to reduce the environmental impact of your electricity use.
- Your power provider will connect your system to the electricity grid and buy any excess power you produce.
- Your state, city, or utility offers rebates, tax credits, or other incentives. Visit www.dsireusa.org to find out about financial incentives in your area.

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Visit **www.eere.energy.gov/consumer/tips/**
to order booklets, download the PDF, and view the booklet online.

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Energy efficiency and clean, renewable energy will mean a stronger economy, a cleaner environment, and greater energy independence for America. Working with a wide array of state, community, industry, and university partners, the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy invests in a diverse portfolio of energy technologies.

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October 2008

Energy Efficiency in the Economic Recovery Bill

A summary based on H.R. 1, the American Recovery and Reinvestment Act of 2009, as signed into law by President Barack Obama on February 17, 2009.

Item	Final Law
Broad Energy Programs	
State Energy Program	• $3.1 billion for the Department of Energy's (DOE's) State Energy Program (SEP), which provides grants and funding to state energy offices for energy efficiency and renewable energy programs conditioned on state Governors' assurances regarding regulatory policies, building code requirements and the prioritization of existing state programs. Authorized under Part D of Title III of the Energy Policy and Conservation Act.

Energy Efficiency and Conservation Block Grant Program	• $3.2 billion to assist local governments in implementing energy efficiency and conservation programs. Authorized in Title V of EISA. Of which:
	  ○ $2.8 billion is awarded based on existing formula
	  ○ $400 million is awarded on a competitive basis

Loan Guarantees	• $6 billion for the Innovative Technology and Loan Guarantee Program, which supports commercial use of advanced technologies to avoid and lower air pollutants, greenhouse gases, etc. Authorized under Title XVII of EPAct '05.
Research, Development, Demonstration, and Deployment (ARPA-E)	• $400 million for the Advanced Research Projects Agency-Energy. Authorized under Section 5012 of the America Competes Act. • $2.5 billion for applied research, development, demonstration and deployment activities.
Green Jobs	• $500 million for research, labor exchange and job training projects to prepare workers for careers in energy efficiency and renewable energy industries. Authorized by Section 171(e)(1)(B)(ii) of the Workforce Investment Act. • Up to $37.5 million provided for Job Corps Centers, which may include training for careers in energy efficiency
Buildings , Appliances, Electricity, Industry, and Agriculture	
Green Schools	• $9.75 billion for public safety and other government services,which may include assistance for elementary and secondary education and public institutions of higher education, and for modernization, renovation or repair of public school facilities and public institutions of higher education facilities, including modernization, renovation, and repairs that are

	consistent with a recognized green building rating system.
Federal Buildings	• $3.6 billion for Department of Defense energy efficiency projects and modernization of facilities • $4.5 billion to GSA for measures to convert GSA facilities to High-Performance Green Builings. • $400 million to establish the Office of Federal High Performance Green Buildings • $75 million for Defense-Wide funding of research, development, text and evaluation projects, including pilot projects, demonstrations, and energy efficiency manufacturing enhancements
Weatherization Assistance Program (WAP)	• $5 billion for the weatherization of low-income family homes. Authorized in Title IV, Part A of the Energy and Conservation and Production Act, Public Law 94-385.
Assisted Housing	• $250 million will support a program to upgrade HUD-sponsored low-income housing to increase energy efficiency. • $1 billion for the Public Housing Capital Fund for competitive grants, including investments that leverage private sector funding or financing for renovations and energy conservation retrofit investments
Electricity Grid	• $4.5 billion for research and development, pilot projects, and federal matching funds for the Smart Grid Investment Program to modernize the electricity grid. Authorized under Title XIII of EISA. • $3.25 billion for the Bonneville Power Administration • $3.25 billion for the Western Area Power Administration
Energy Efficient Appliance Rebate Programs	• $300 million for the Energy Star Program and for matching grants for state rebates to consumers for buying energy efficient Energy Star products to replace old appliances. Authorized under Section 124 of the Energy Policy Act of 2005 (EPACT05), or for the Energy Star Program.
Transportation	
Public Transportation and Rail	• $8 billion for capital assistance for high-speed rail corridors and Intercity Passenger Rail Service • $6.9 billion for transit capital assistance, of which $100 million is for public transit agencies for capital investments that will assist in reducing the energy consumption or greenhouse gas emissions of their public transportation systems • $1.5 billion in grants for state governments, local governments and transit agencies, for capital investments in surface transportation infrastructure, including New Starts and Small Starts projects and passenger and freight rail transportation projects, as well as highway and bridge projects

	• $1.3 billion for Amtrak, of which $450 billion is capital security grants
Advanced Batteries	• $2 billion for grants to assist U.S. companies in the manufacturing of advanced battery systems and components, including funding awards to manufacturers of advanced battery systems and vehicle batteries, including advanced lithium ion batteries, hybrid electrical systems, component manufacturers, and software designers.
Plug-in Electric Vehicles	• $400 million for the Plug-In Electric Drive Vehicle Program, which provides grants to state and local governments and others to carry out projects to encourage the use of plug-in electric drive vehicles. Authorized under Section 131 of EISA.
Alternative Transportation Grants and Programs	• $300 million for assistance to state and local governments to acquire efficient alternative fuel vehicles. Authorized under Section 721 of the EPACT05. • $300 million for grants to state and local governments to reduce diesel emissions. Authorized under Title VII, Subtitle G of the EPACT05.
Federal Fleet	• $300 million for GSA's Motor Vehicle Acquisition and Motor Vehicle Leasing program, in order to replace the Federal fleet with more efficient vehicles.
Tax Provisions	
Existing Homes Tax Credit	• Extends and increases the value of the credit to 30 percent of cost up to $1,500 for 2009 and 2010 for property meeting certain standards.
Investment Tax Credit	• Removes the $2,000 cap on the 30 percent credit for solar thermal and geothermal property, as well as the $4,000 cap on small wind property.
Energy Conservation Bonds	• Increases and expands the bond limitation on energy conservation bonds by $2.4 billion for loans and grants to implement Green Community Programs
Advanced Energy Investment Credit	• Establishes a new 30 percent investment tax credit for the manufacture of "advanced energy property," including technology for the production of renewable energy, energy storage, energy conservation, efficient transmission and distribution of technology, and carbon capture and sequestration. Up to $2.3 billion in credits may be allocated.
Grants in Lieu of Credits	• Provides grants to businesses instead of tax credits (which only have value if you owe taxes) for specified energy property placed in service during 2009 or 2010, including for combined heat and power systems, geothermal

	heat pumps, fuel cells, and microturbines.
Transit Benefits	• Increases the monthly exclusion for employer-provided transit and vanpool benefits to the level of employer-provided parking level of $230 per month
High Speed Rail Bonds	• Modifies the exempt facility bond eligibility requirement for high-speed intercity rail transportation facilities to use vehicles capable of attaining a maximum speed in excess of 150 mph.
Plug-in Electric Drive Motor Vehcile Credit	• Modifies the plug-in electric drive motor vehicle credit by limiting the maximum credit to $7,500 regardless of vehicle weight. • Eliminates the credit for low speed plug-in vehicles and for plug-in vehicles weighing 14,000 pounds or more • Replaces 250,000 plug-in vehicle limitation with a 200,000 per manufacturer limitation

INTERNAL REVENUE SERVICE
IRS News Release

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Energy-Saving Steps This Year May Result in Tax Savings Next Year

IR-2009-44, April 22, 2009

WASHINGTON — The Internal Revenue Service today reminded individual and business taxpayers that many energy-saving steps taken this year may result in bigger tax savings next year.

The recently enacted American Recovery and Reinvestment (ARRA) of 2009 contained a number of either new or expanded tax benefits on expenditures to reduce energy use or create new energy sources.

The IRS encouraged individuals and businesses to explore whether they are eligible for any of the new energy tax provisions. More information on the wide range of energy items is available on the special Recovery section of IRS.gov. For a larger listing of ARRA's energy-related tax benefits, see Fact Sheet 2009-10.

Tax Credits for Home Energy Efficiency Improvements Increase

Homeowners can get bigger tax credits for making energy efficiency improvements or installing alternative energy equipment.

The IRS also announced homeowners seeking these tax credits can temporarily rely on existing manufacturer certifications or appropriate Energy Star labels for purchasing qualifying products until updated certification guidelines are announced later this spring.

"These new, expanded credits encourage homeowners to make improvements that will make their homes more energy efficient," said IRS Commissioner Doug Shulman. "People can improve their homes and save money over the long run."

ARRA provides for a uniform credit of 30 percent of the cost of qualifying improvements up to $1,500, such as adding insulation, energy-efficient exterior windows, and energy-efficient heating and air conditioning systems. The new law replaces the old law combination available in 2007 of a 10-percent credit for certain property and a credit equal to cost up to a specified amount for other property.

The new law also raised the limit on the amount that can be claimed for improvements placed in service during 2009 and 2010 to $1,500, instead of the $500 lifetime limit under the old law.

In addition, the new law has increased the energy efficiency standards for building insulation, exterior windows, doors, and skylights, certain central air conditioners, and natural gas, propane or oil water heaters placed in service after Feb. 17, 2009.

IRS guidance issued before the enactment of ARRA will be modified in the near future to reflect the new energy efficiency standards. In the meantime, homeowners may continue to rely on manufacturers' certifications that were provided under the old guidance and on Energy Star labels for exterior windows and skylights in determining whether property purchased before June 1, 2009, qualifies for the credit. Manufacturers should not continue to provide certifications for property that fails to meet the new standards.

The new law also eliminates the cap on the 30 percent tax credit for alternative energy equipment, such as solar water heaters, geothermal heat pumps and small wind turbines, installed in a home. The cap generally has been eliminated for these improvements beginning in the 2009 tax year. The IRS today issued Notice 2009-41, which explains the effects of this change.

Funding Options for Renewable Energy Power Plants

Business taxpayers who place in service facilities that produce electricity from wind and some other renewable resources can choose one of three options to fund the project: a tax credit based on the amount invested, a tax credit based on the energy produced or a grant.

The flexibility to choose among these options was enacted as part of ARRA.

Taxpayers may opt to claim the energy investment tax credit, which generally provides a 30 percent tax credit for investments in energy projects, instead of the production tax credit, which can provide a credit of up to 2.1 cents per kilowatt-hour for electricity produced from renewable sources.

Taxpayers making qualified investments that are placed in service after 2008 and before 2014 (or 2013 for wind facilities) can make an irrevocable election to claim the energy investment tax credit instead of the renewable electricity production tax credit. IRS will issue guidance explaining how to make the election.

Taxpayers also can claim a grant once the property is placed in service instead of claiming either the energy investment tax credit or the renewable energy production tax credit. For qualified renewable energy facilities, the grant is 30 percent of the investment in the facility as long as construction begins in 2009 or 2010 and the property is placed in service before 2014 (2013 for wind facilities). The Treasury Department will issue guidance explaining how the grant works and how to apply.

Taxpayers electing to receive the grant, created by the ARRA, will not be eligible for either of the tax credits. Proceeds from the grants are not includible in the taxpayer's gross income, but the grant amount is subject to recapture if the property is disposed of or otherwise ceases to qualify.

For more information on the renewable electricity production tax credit under Section 45 see Notice 2008-60 and Notice 2008-48, and for more information on the energy investment tax credit under Section 48 see Notice 2008-68.

COMFORT SAVINGS BENEFITS INCLUDE:

- Reducing energy costs for families
- Providing education on how to make your home more energy efficient
- Identifying health and safety concerns
- Increasing financial independence
- Creating greater flexibility in spending choices

HOW DOES *COMFORT SAVINGS* WORK?

- Our professionally trained ***Comfort Savings*** technicians perform FREE evaluations of single-family homes, multi-family dwellings, and mobile homes.
- Our ***Comfort Savings*** technicians determine which energy efficiency measures are appropriate, emphasizing the most cost-effective measures which will result in the greatest energy savings for your home.
- ***Comfort Savings*** crews install FREE energy efficient products, and a Carbon Monoxide detector for gas fueled homes utilizing funds provided by NV Energy.

WHAT IS THE *COMFORT SAVINGS* WEATHERIZATION PROGRAM?

- ***Comfort Savings*** is a FREE residential energy efficiency program offered by NV Energy.
- ***Comfort Savings*** aims to reduce energy costs for qualifying families, through the installation of energy-efficient weatherization measures.
- ***Comfort Savings*** specifically focuses on assisting income qualified families.
- ***Comfort Savings*** provides assistance to individuals residing in single and multi-family dwellings as well as mobile homes. The program is available to both owner or renter occupied households.

NVEnergy™

Weatherization Works

COMFORT SAVINGS

For more information on this **FREE** home weatherization program or to check if you qualify for this program, call our customer service department

Toll Free 1-866-920-7822

phone (702) 895-6220 fax (702) 895-6260

Se habla Español

2925 East Patrick Lane #D, Las Vegas, NV 89120

New FREE Service from NV Energy

COMFORT SAVINGS

Home Weatherization Program

NVEnergy™

Free home energy efficiency audits and upgrades for income-qualified customers courtesy of NV Energy

WEATHERIZATION WORKS!

Weatherization produces an impressive range of benefits for households and communities. Nationally, for every $1 invested in the program, Weatherization returns $1.39 in energy-related benefits. Weatherization measures reduce national energy consumption and dampen demand for imported oil [1]

The ***Comfort Savings*** Weatherization Program is available ***FREE OF CHARGE*** to income-qualified customers of NV Energy. ***Comfort Savings*** employs professionally trained technicians who use field tested protocol and advanced diagnostic equipment, to determine the most cost-effective energy-savings measures appropriate for each home. ***Comfort Savings*** technicians also test heating units and appliances for dangerous carbon monoxide emissions and gas leaks.

Typical ***Comfort Savings*** services include installing insulation in the attic; stopping heat loss around windows, doors, and other infiltration points; Air Conditioning tune ups. ***Comfort Savings*** customers are also educated on basic energy-efficiency practices and provided with free literature.

NV Energy prides itself on the professionalism and courtesy of its workforce. Our team of highly skilled technicians are standing by to make your home more energy efficient, safer and more economical.

Start saving money on your monthly energy expenses by calling us today to see if your family qualifies for this FREE Home Weatherization service from NV Energy.

To find out if you qualify or for more information regarding this special program from NV Energy, call Toll Free **1-866-920-7822** to speak to a representative.

FREE Comfort Savings Services include:

BASIC INTERIOR SERVICES:

- ☑ ***FREE*** CFL High Efficiency Light Bulbs
- ☑ ***FREE*** High Efficiency Shower Heads +
- ☑ ***FREE*** High Efficiency Faucet Aerators +
- ☑ ***FREE*** Pipe Insulation +
- ☑ ***FREE*** Hot Water Heater Tank Insulation +

EXTERIOR BUILDING SERVICES:

- ☑ ***FREE*** Window and Door Caulking & Weather Stripping
- ☑ ***FREE*** Attic Insulation

HEATING AND COOLING SERVICES:

- ☑ ***FREE*** Programmable Thermostat Installation and Initial Setting

NVEnergy™

Not all services will be offered to all households. There may be limits on available funding and materials. Services offered on a first-come, first-served basis. [1] *Data provided by the U.S. Department of Energy.*

+ Available for homes with electric hot water heaters and in homes with gas water heaters if NV Energy is your gas utility.

Helping You Achieve The Greatest Benefit From Your Electric Use Every Day

Energy efficiency with household appliances. Know how much energy your household appliances use.

The estimated usages shown are average figures based on industry statistics. They do not apply to a particular manufacturer's product and vary depending on individual operation. However, if you follow the manufacturer's instructions for use and care, your appliances will use energy more efficiently.

One kilowatt hour (kWh) is 1,000 watts of electricity used for one hour. For example, 10 100–watt light bulbs burning for one hour equal one kilowatt hour.

For more conservation tools and tips, please visit:

NVEnergy™
NVEnergy.com

P.O. Box 98910
Las Vegas, NV 89151
(702) 402-1111

P.O. Box 10100
Reno, NV 89520
(866) 588-6363

ENERGY STAR

Look for products with the ENERGY STAR® label.

ENERGY STAR® labeled products are available in more than 50 categories for residential or commercial use. These products are 10 – 25% more efficient than required by the federal standard while providing top performance and innovative features.

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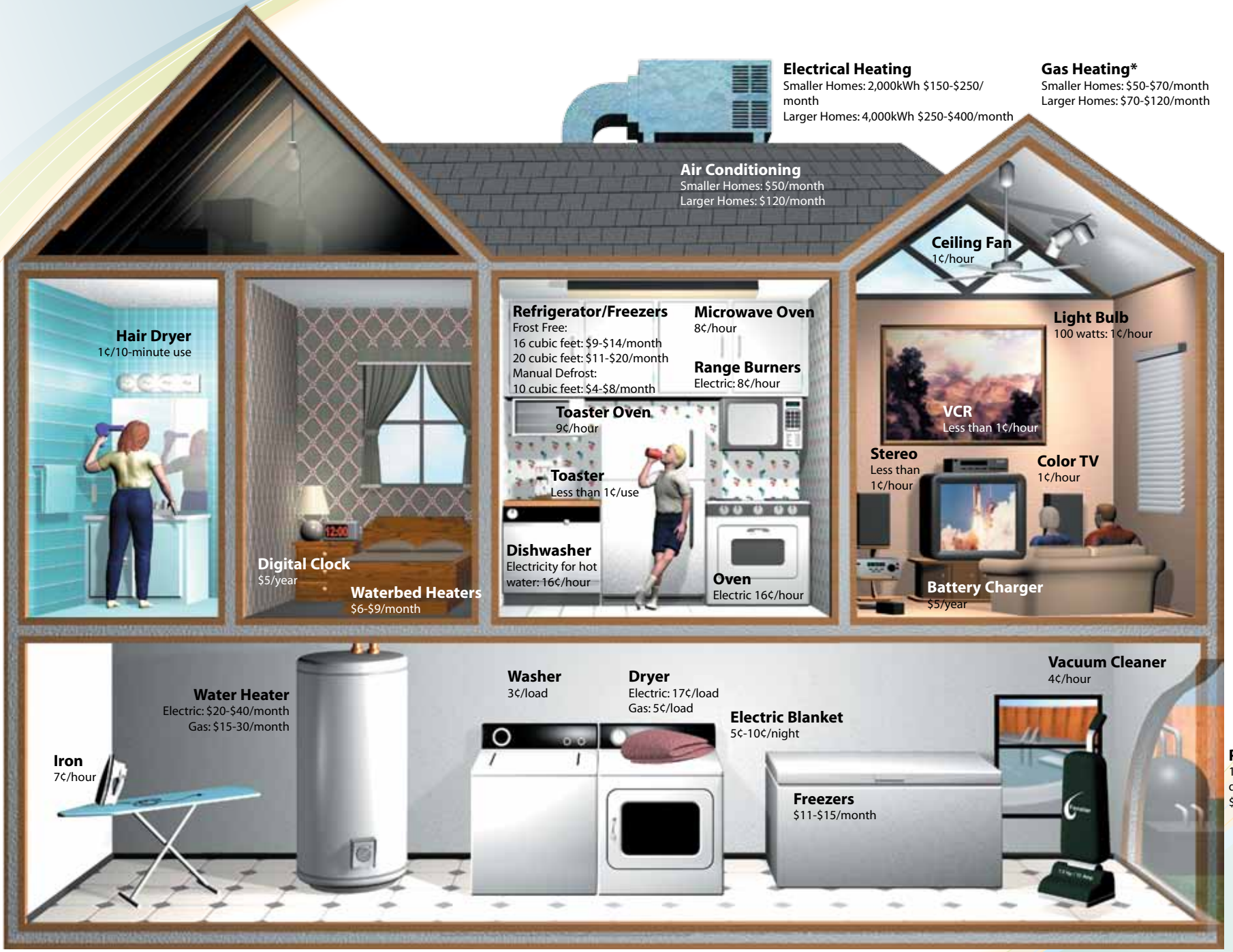
Household Appliance Guide

WHERE DO YOUR ENERGY DOLLARS GO?

NVEnergy™



For current rates visit NVEnergy.com

*NV Energy Natural Gas Rates

sized ones). You have to own the unit, and there's a two-unit per address limit. Once we take your refrigerator, we'll mail you a check for $30 (per unit) roughly 4 weeks after the pick up.

SOLAR GENERATIONS

Investing in a photovoltaic system allows you to produce your own electricity with no noise or air pollution – and no moving parts – while using a clean, renewable resource and reducing your monthly energy bills. NV Energy provides rebates to offset the installation costs for grid-connected photovoltaic (solar electric) systems.

TIME OF USE

The Time of Use (TOU) Rate offers a significant opportunity to reduce your power bill if you can conserve energy during "On-Peak" periods, when the weather is hottest and electricity use is greatest. The TOU Rate charges higher "On-Peak" prices between 1 p.m. and 7 p.m. daily, June through September, but it lowers your rate compared to the standard rate at all other times of the year. Sign-up for the TOU Rate to increase your savings while participating in Cool Share and the other great NV Energy efficiency programs.

HIGH-EFFICIENCY AC REBATE

Our southern Nevada customers may qualify for a cash incentive ranging from $140 to $1,625, depending on the size and efficiency of the air conditioning unit chosen when the old air conditioner is replaced with a more efficient system (14 SEER and 11 EER or higher). By making the switch to a high-efficiency air conditioner, not only will it lower the power bill, it will reduce the demand for the resources needed to generate power, which helps preserve our environment.

HIGH EFFICIENCY FURNACE REBATE

NV Energy provides incentive to our gas customers for the installation of high efficiency forced air furnace space heating. To be eligible for a rebate, the unit installed must be an ENERGY STAR qualified furnace with an efficiency rating AFUE of 90% or higher. (*Note: This program is only available in our northern Nevada service territory.)*

WATER HEATER BLANKETS

For our gas customers, NV Energy will install water heater blankets on gas heaters that meet criteria for safety and savings. The water heater blankets, which have an insulation value of R-11, are applied to gas water heaters that have an insulation value of less than R-24. This reduces electric use by decreasing the standby heat loss that occurs when hot water is stored waiting for future use. (*Note: This program is only available in our northern Nevada service territory.)*

For more information, visit us online at NVEnergy.com

NVEnergy™

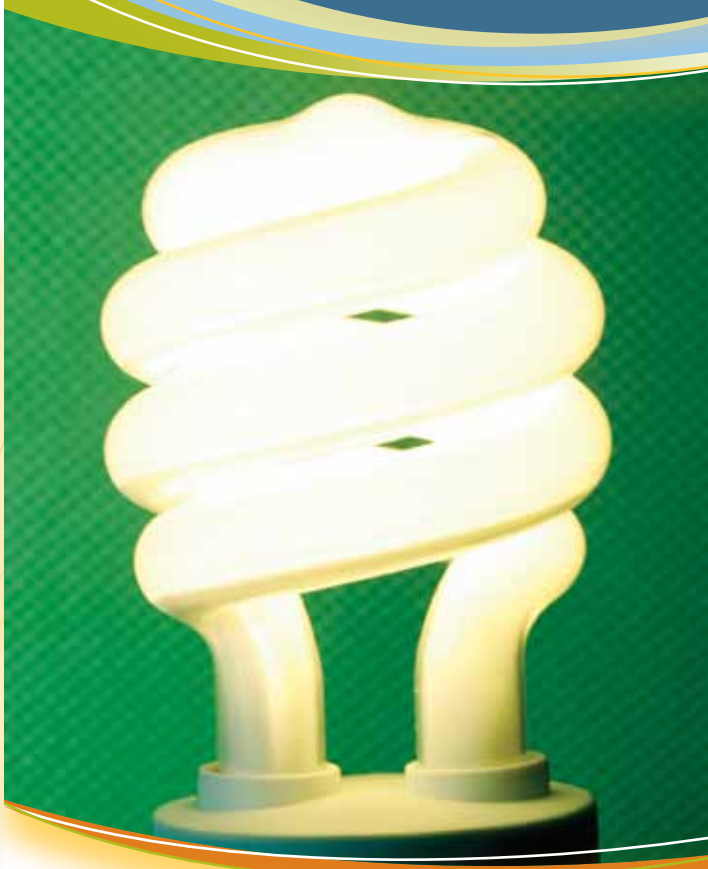
P.O. Box 98910
Las Vegas, NV 89151
(702) 402-1111

P.O. Box 10100
Reno, NV 89520
(866) 588-6363

nve/GW 15m 04/09

Energy Efficiency & Conservation

RESIDENTIAL PROGRAMS



NVEnergy™

Electricity. It's our most powerful energy resource, and we depend on it for nearly everything we do. Today our nation's demand for electricity is at an all-time high—and is projected to grow at least 40 percent within the next 25 years. That's why we are taking steps now to plan for our electric future.

Making your home more energy efficient can help reduce high energy bills while improving your level of comfort. As an added bonus, it's good for the environment we all share. NV Energy offers a number of programs and services designed to help our customers save electricity and money. These programs include cash rebates, load-control, weatherization, energy efficient lighting and educational programs.

Start saving now.

COOL SHARE

The Cool Share program automatically cycles your central air conditioning system on the hottest weekdays (104°F and above) June through September. As a program participant, NV Energy will install a web-programmable thermostat in your home at no charge (a total value of $300). You'll earn $1 per event—up to $29 over the summer for each central A/C unit. Cool Share helps you save energy and money while rewarding you for participation. (*Note: Existing receiver switch customers signed up under the former Cool Credits program are on a different incentive structure. Call for details. The Cool Share program is only available in our southern Nevada service territory.)*

ENERGY EDUCATION & CONSULTATION

Free energy audits are provided to you by our energy experts. We offer energy tips and specific recommendations to help you reduce energy consumption in your home by changing your usage habits and making educated purchases.

POOL PUMPS

If you're a pool owner, you know it's important to keep it clean, clear and healthy. If you're filtering your water with a single-speed pump, a lot of energy – and money – is flowing down the drain. To help you upgrade to a more efficient pump that will save up to 80% on energy costs, NV Energy offers a $200 instant rebate on variable-speed pumps and a $100 instant rebate on two-speed pumps.

ENERGY STAR® LIGHTING

NV Energy is working with participating retailers to offer our customers discounts on energy-efficient compact fluorescent lamps (CFLs) to replace your traditional incandescent light bulbs. Please visit our website at NVEnergy.com/conserve for a list of participating retailers and then look for our logo in the lighting aisle to identify the specially priced CFLs.

ENERGY STAR MANUFACTURED HOMES

NV Energy provides rebates to manufactured housing retailers and customers for the purchase and installation of new ENERGY STAR Manufactured Homes.

GREENPOWER PROGRAM

We are fortunate to live in one of the few prized locations in the world where there is an abundance of sunshine and other renewable energy sources. You can help protect our precious environment by participating in the GreenPower program. Your support will help encourage the development of renewable energy in Nevada as an alternative to electrical generation powered by fossil fuels. Your tax-deductible donation will be invested in the construction of solar electric generation facilities and solar education in Nevada. We will forward 100% of your donation the Desert Research Institute's Foundation, a 501(c)(3) non-profit organization, which is managing the program.

LOW INCOME WEATHERIZATION

NV Energy helps income-qualified families to reduce energy costs by providing free installation of energy-efficient weatherization measures in their homes. Customers who reside in single- and multi-family dwellings, as well as mobile homes, can receive assistance.

REFRIGERATOR RECYCLING

Old refrigerators or freezers can use three times as much energy as newer ones, and run up your power bill. But you can get rid of yours for free and pick up $30 cash by recycling it. To participate, your refrigerator or freezer must be in working condition and has to be at least 10 cubic feet in size (no dorm-

It's the tract house you made your own, or a custom home, years in the planning. It's a cozy town home you bought when the kids left, or an apartment you crash in after a day at the lake. It doesn't matter. You need to be comfortable at home and it would be nice to save some money doing it.

We've provided you with some easy, cost effective tips that you can implement to make your home that much more efficient.

For more conservation tools and tips, please visit:

NVEnergy™
NVEnergy.com

ENERGY STAR

Look for products with the ENERGY STAR® label.

ENERGY STAR® labeled products are available in more than 50 categories for residential or commercial use. These products are 10 – 25% more efficient than required by the federal standard while providing top performance and innovative features.

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Conservation Tips

RESIDENTIAL CUSTOMERS

NVEnergy™

No–Cost Tips

Save 10 to 25 percent on your energy bill

- Turn off lights and appliances when not in use.
- In the winter, turn your thermostat down when sleeping or not at home.
- In the summer, turn your thermostat up when sleeping or not at home.
- Set your water heater thermostat to 120°.
- Vacuum the coils underneath and on back of your refrigerator.
- Close foundation vents in the winter months.

Low–Cost Tips

Save an additional 10 to 25 percent

- Change incandescent bulbs to compact fluorescent bulbs. You can typically save one dollar per month on each bulb changed (For bulbs on four to six hours per day.)
- Caulk windows and weather–strip doors.
- Install water heater blanket. Install water pipe insulation.
- Plant trees and shrubs on south and west sides of residence.
- Fix leaky faucets. Install low–flow showerheads.
- Use ceiling or room fans to keep the air moving.
- Replace furnace and air conditioner filters monthly.

NVEnergy™

NVEnergy.com

Added–Cost Tips

Save up to an additional 25 percent

- Fully insulate your attic, walls, pipes and air ducts.
- Upgrade your windows to vinyl frame, double–pane units.
- Replace your old appliances with new energy–efficient models.

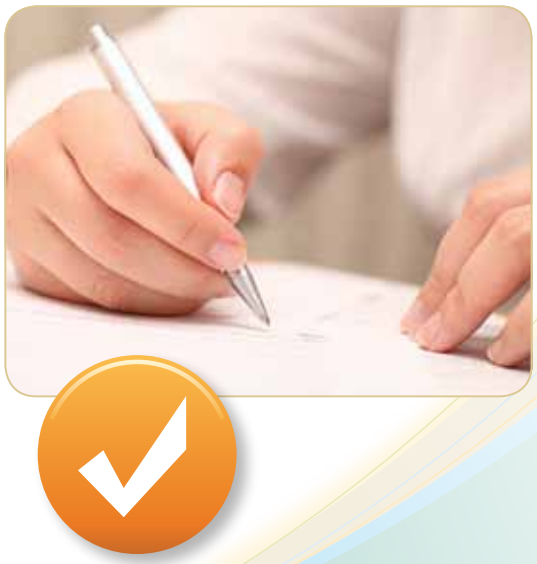
How do we apply?

1. Contact us at energyplus@NVEnergy.com to make sure you have the latest information.

2. Print out the PDF application and the Energy Plus handbook from: NVEnergy.com/energyplus.cfm

3. Complete the application and sign it. If you have a scanner, scan and email to: **energyplus@NVEnergy.com**

4. Or mail application to:
   NV Energy
   6226 West Sahara Ave. M/S 29
   P. O. Box 98910
   Las Vegas, Nevada 89151-0001
   Attn: Energy Plus New Homes Program



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NVEnergy™

6226 West Sahara Ave. M/S 29
P. O. Box 98910
Las Vegas, Nevada 89151-0001
Attn: Energy Plus New Homes Program

Energy Plus Homes

New Homes Program

NVEnergy™

Energy Plus New Homes Program

What Is It?

The Energy Plus New Homes Program (EPNHP) will award a limited number of financial incentives to builders who construct homes and multi-family dwellings (three stories or less and non mixed-use) that exceed Nevada's energy efficiency standards for new construction.

Homebuilders of all annual production volumes are encouraged to apply.

Benefits To Consider

FINANCIAL

Builders participating in the program will be paid a financial incentive per estimated annual kilowatt-hour (kWh) savings, per single and multi-family dwelling.

TRAINING BENEFITS

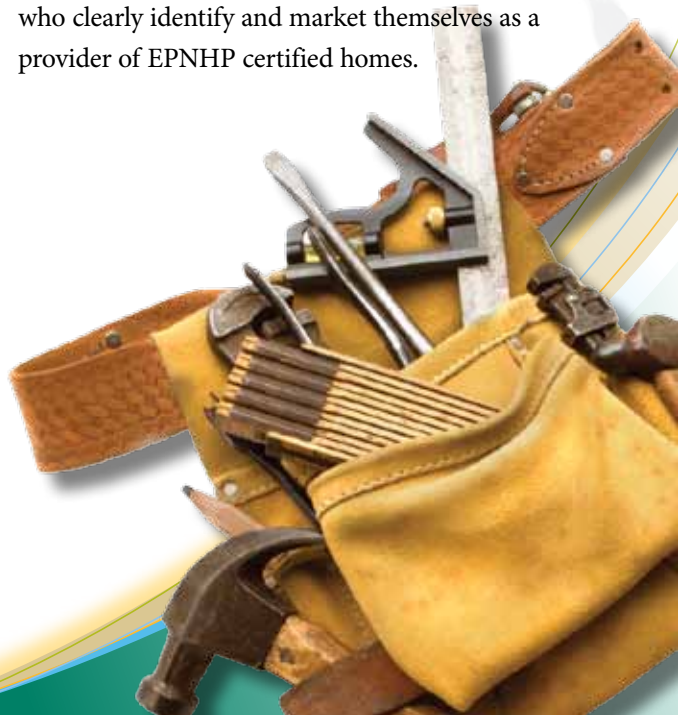
Builders can attend training sessions which promote EPNHP homes by highlighting their improved energy performance and communicate the associated benefits of buying an EPNHP qualified home.

TECHNICAL SUPPORT

The Program implements a comprehensive eligibility review and verification process. This process provides another layer of assurance to builders that their homes meet EPNHP specifications and achieves an energy efficiency of at least 30% greater than that required by code (IECC2006) and that Home Energy Rating System (HERS) raters are following Residential Energy Services Network (RESNET) standards or equivalent.

MARKETING AND OUTREACH

In addition to providing homebuilder incentives, the program will also invest in a marketing program and consumer advertising campaign to further stimulate the supply of and demands for energy efficient homes providing additional marketing value to participating homebuilders who clearly identify and market themselves as a provider of EPNHP certified homes.



Sustainable Home Green Resource Guide

SPRINGS PRESERVE
www.springspreserve.org

TABLE OF CONTENTS

Making changes at home

As we become more aware of the environmental and health implications of our unsustainable lifestyle, the idea of green living is becoming more popular – and more necessary.

The Desert Living Center and its Sustainable Home are here to show you how you can make changes at home to live more sustainably. This means reducing your use of resources like power and water and by choosing household products that have less impact on your health and the world around you.

If you want to live more sustainably, home is a good place to start. You have the power to decide how your home is run and what goes into it: what types of food, furniture, chemicals and clothes. Since homes and gardens use a lot of the Earth's resources to build and operate, they also offer many opportunities to conserve resources and costs while improving your quality of life.

What is sustainable living?

Sustainability means living within the Earth's limits, meeting the needs of the present without compromising the ability of future generations to meet their own needs.

Welcome to the Sustainable Home

Looking for healthier or more sustainable options – or just ways to save money – for your home? You've come to the right place.

For many items in your home, there are more-sustainable alternatives. The Sustainable Home shows you concrete examples of how you can use fewer resources and make sustainable choices in how you run and outfit your home, whether you're building a new one or rethinking an existing one.

You'll find information on materials, systems and products for your entire home. Their manufacturers have taken into account the resources used in the creation and everyday use of these items, and considered how they will be disposed of at the end of their lives.

How to use this guide

As you walk through the Sustainable Home, you can find out more about products you find interesting by looking in this guide. Remember to pull out drawers, look in cupboards, under sinks, all over!

The guide is organized by room. Alternative product ideas are included too. You can also search the index in the back by product name or product type.

Take this guide home with you and visit some of the websites listed here, or take it on your next grocery shopping trip to cross-check products.

This is just a taste

The products, materials and finishes noted here and featured in the home are only a sampling of those available. There are many more out there. Use the Internet and publications to find more, or ask at your local shops for sustainable products.

Green shopping guidelines

Look for products that are:

CYCLIC: don't damage the environment to make, use or dispose of.

CLEAN: don't consume disproportionate energy or resources to make, use or dispose of.

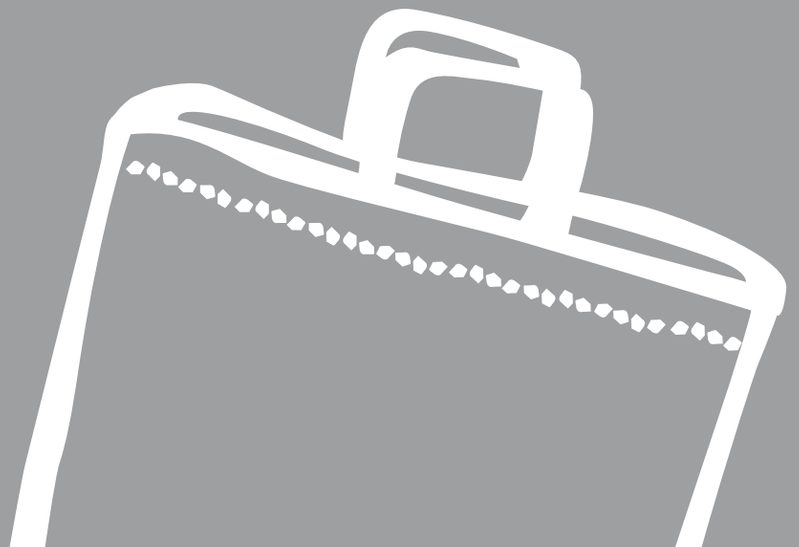
SAFE: not dangerous to the health of people, animals or the environment. Healthy to make, use and dispose of.

EFFICIENT: don't cause unnecessary waste because of excess packaging or a short life.

DURABLE: will last a long time. Easy to maintain and repair.

COMMUNICATIVE: packaging provides enough information to help you to understand products' impacts.

FAIR AND KIND: produced under fair and just conditions for workers. Production doesn't involve cruelty to animals or use materials from threatened species or environments.



It doesn't have to be new to be green

A lot of us shop for fun. Even more of us buy things we want, but don't really need. Shopping for green products can make us feel good about what we're buying, but it still feeds into a way of life that isn't sustainable. The less you shop for new stuff, the less waste you contribute and the fewer resources you use.

Buying vintage is one of the greenest ways to shop. It takes much less energy to reuse an item that already exists than to make a new one, even a sustainable one. You can paint, refinish and change the hardware on vintage furniture to give it new life. Vintage clothing can be altered to bring it up-to-date. Plus, you can probably afford higher-quality vintage products.

Local resources

Desert Living Center
Check for programs and courses on sustainable homes and gardens.
www.springspreserve.org
The Springs Preserve
333 S. Valley View Blvd.
Las Vegas

Las Vegas Valley Water District
For tips on smart water usage.
www.lvvwd.com

Nevada Power
For tips on energy conservation and rebates.
www.nevadapower.com

Las Vegas Farmers Market
Check website for times and locations.
www.lasvegasfarmersmarket.com

Nevada Recycling Hotline
1-800-597-5865

Waste Disposal
Drop off household hazardous waste free of charge, including paint thinners, mercury, solvents, paint removers, gasoline, diesel fuel, lighter fluid, waste oil, batteries, pesticides, fertilizers, drain and oven cleaners, adhesives, pool chemicals and aerosol cans.

Republic Services Recycling Facility
www.republicservicesvegas.com
333 W Gowan Rd
North Las Vegas

Whole Foods Market
Grocer and retailer with selection of sustainable foods and products.
8855 West Charleston Blvd.
Las Vegas
100 S. Green Valley Pkwy
Henderson

Wild Oats Natural Marketplace
Grocer and retailer with selection of sustainable foods and products.
517 N. Stephanie St.
Henderson

LAUNDRY ROOM

LAUNDRY ROOM

Materials and Finishes

Low-VOC Eco Spec paint
MANUFACTURER: Benjamin Moore
www.benjaminmoore.com
Most paints and finishes release low-level toxic emissions into the air for years after application. The source of these toxins is Volatile Organic Compounds (VOCs)—this product contains very low levels.

Appliances

All-In-One washer and dryer
WM3431HW
MANUFACTURER: LG Electronics
www.LGappliances.com
Front-load washers hold larger loads and use about a third as much water as top-loaders. A high-speed spin extracts more water and decreases drying time, while a ventless drying system saves energy.

Products

Laundry Products

Oxygen Bleach Plus
MANUFACTURER: biokleen
www.biokleenhome.com
No chemicals, biodegradable.

Citra-Drain Natural Enzymatics Drain Cleaner
MANUFACTURER: Citra-Solv
www.citra-solv.com
Natural enzymes, no chemicals.

Enviro-Magic Cedarwood Closet Enhancer
MANUFACTURER: Amazon Premium Products
www.amazonpp.com
Pure cedarwood and cedarwood oils, not tested on animals, can be used in place of mothballs and other pesticides.

Laundry Stain Remover
MANUFACTURER: Bio Pac
www.bio-pac.com
Biodegradable and environmentally safe ingredients. Bulk cleaners packaged in refillable containers and recycled bottles. Manufacturer donates percentage of profits to wilderness preservation.

Linen Spray
MANUFACTURER: Caldrea
www.caldrea.com
Plant-derived essential oils, no animal testing.

Free and Clear Laundry Powder
MANUFACTURER: Seventh Generation
www.seventhgen.com
Naturally derived cleaning agent, no bleach, no phosphates, biodegradable, hypo-allergenic, no fragrances, no animal testing.

Delicate Wash Laundry Detergent
MANUFACTURER: Ecover
www.ecover.com
Plant based ingredients, biodegradable, no animal testing.

Fabric Softener
MANUFACTURER: Mrs. Meyer's Clean Day
www.mrsmeyers.com
Natural essential oils, biodegradable, phosphate free.

LAUNDRY ROOM

Dryer Sheets
MANUFACTURER: method
www.methodhome.com
Biodegradable ingredients, no animal testing.

Wall shelf drying rack
www.gaiam.com
Unfinished Eastern white pine.

Bedding

Organic sheets
MANUFACTURER: Coyuchi Organic Cotton
www.coyuchi.com
100% organic cotton.

Organic jersey sheet set
MANUFACTURER: Sage Creek Naturals
www.sagecreeknaturals.com
100% organic cotton.

Ecoluxury pure wool pillow
MANUFACTURER: Sleeptek/Greensleep
www.rawganique.com
Pure organic wool, 100% organic cotton cover.

Organic buckwheat hull pillow
www.satara-inc.com
Organic buckwheat hulls, organic cotton cover.

Natural latex pillow
MANUFACTURER: Obasan
www.obasan.ca
Natural latex, no synthetics, naturally dust mite resistant, organic cotton cover.

Towels

Anastasia luxury hand-loomed organic cotton towels
MANUFACTURER: Indika Organics
www.indikaorganics.com
Hand-loomed in Turkey, 100% organic cotton, colored with plant and vegetable dyes.

Bamboo towels
RETAILER: www.ecochoices.com
100% bamboo, no dyes.

Pet Products

Natural wheat kitty litter
MANUFACTURER: Swheat Scoop
www.swheatscoop.com
Naturally processed wheat, clay free, chemical free, fragrance free, biodegradable.

Dog waste bags
MANUFACTURER: BioBag
www.biobagusa.com
Made of GMO-free corn, no polyethylene, biodegradable, compostable.

Organic pet shampoo
MANUFACTURER: Vermont Soap Organics
www.vermontsoap.com
USDA certified organic, no chemical detergents, no synthetics, no antimicrobial preservatives.

Herbal flea collar
MANUFACTURER: PetGuard
www.petguard.com
No chemicals, natural blend of herbs.

Detergent Decisions

What difference can your choice of laundry soap make to the environment? You might be surprised.

Problem ingredients

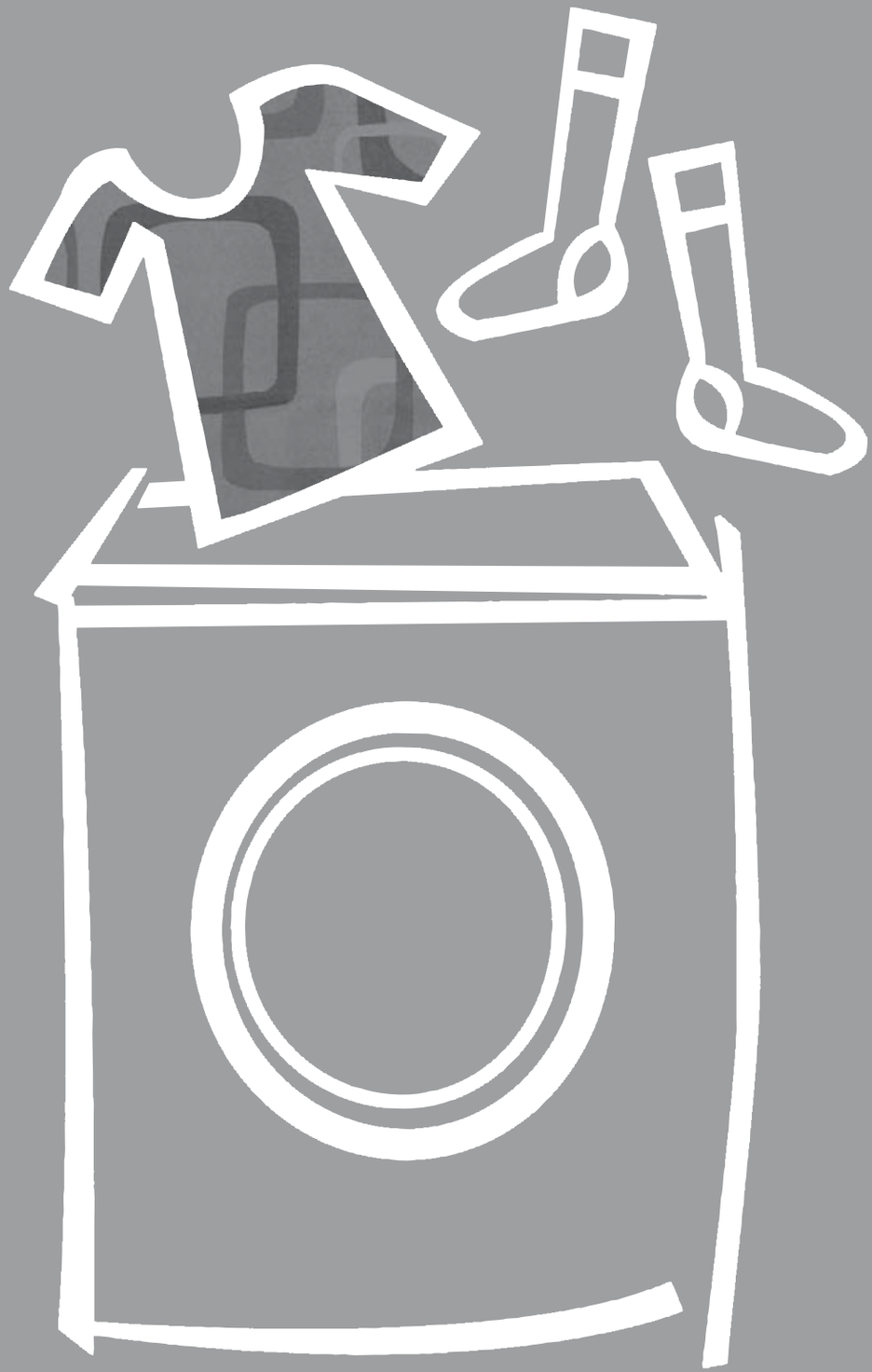
Many ingredients in detergent still have questionable effects on the environment.

- Petroleum products are often used, causing pollution both when detergents are made and used.
- Brighteners are often made of chemicals that are toxic to fish.
- Bleaches containing chlorine, a volatile chemical, should also be avoided. Chlorine in small amounts is used as a disinfectant, but household cleaners containing larger amounts produce fumes that are dangerous to people.

Healthy alternatives

Many alternative brands of laundry soap use natural ingredients and avoid all petroleum products. The manufacturers follow strict rules when making their products, ensuring that no pollution happens then or when the products are used.

These products are becoming more readily available. You can find them at most major supermarkets and department stores. Just ask!



LAUNDRY ROOM

Clothing

Wool baby sweater and cap
MANUFACTURER: NUI Organics
www.nuiorganics.com
Organic merino wool.

Striped onesie baby layette
MANUFACTURER: Under the Nile
www.underthenile.com
Certified organic Egyptian cotton, fair prices/wages paid to growers and workers.

Bamboo golf shirt
MANUFACTURER: Moseau
www.moseau.com
70% bamboo.

Organic cotton jeans
MANUFACTURER: Loomstate
www.loomstate.org
100% organic cotton.

3/4 sleeve Galway graphic tee
MANUFACTURER: Edun
www.edun.ie
Company has mandate to emphasize sustainable and ethical business practices to build sustainable communities.

Button cuff scoop neck sweater
MANUFACTURER: Stewart + Brown
www.stewartbrown.com
100% Mongolian cashmere supports traditional herding, percentage of profits go to environmental charities.

Men's Synchilla® vest
MANUFACTURER: Patagonia
www.patagonia.com
Made of 100% recycled materials, percentage of profits go to environmental charities.

Men's Eco Rain Shell jacket
MANUFACTURER: Patagonia
www.patagonia.com
Both layers made of recycled polyester, percentage of profits go to environmental charities.

Organic cotton men's dress shirt
MANUFACTURER: Boll Organic
www.bollorganic.com
100% organic cotton, percentage of profits donated to environmental charities.

False Advertising?

Is your laundry detergent taking credit for being **phosphate-free?** It shouldn't. That label doesn't mean anything on laundry products. By 1994, major manufacturers of laundry detergents had cut phosphates from their "recipes." Liquid laundry detergents have never contained phosphates.

However, most dishwasher powders still do, releasing phosphorus into the environment every day. Phosphorus acts like a superfood for plants. Too much of it encourages unhealthy algae and weed growth in lakes, rivers and streams.

KITCHEN

Materials and Finishes

Low-VOC Eco Spec paint
MANUFACTURER: Benjamin Moore
www.benjaminmoore.com
Most paints and finishes release low level toxic emissions into the air for years after application. The source of these toxins is Volatile Organic Compounds (VOCs)—this product contains very low levels.

Cork tile flooring
MANUFACTURER: WE Cork
www.wecork.com
Cork is a natural product made from the bark of the cork tree. Cork regrows its bark every nine years, making it a highly renewable resource.

Dakota Burl cabinets
MANUFACTURER: Environ Biocomposites
www.environbiocomposites.com
Composite board made of agricultural waste.

Avonite countertops
MANUFACTURER: Avonite Surfaces
www.avonitesurfaces.com
Contains reclaimed materials.

Appliances

Dishwasher GU220XTS
MANUFACTURER: Whirlpool
www.whirlpool.com
Light cycle cleans glassware or lightly soiled items using less energy and water than a full cycle.

Refrigerator
MANUFACTURER: Whirlpool GB2SHDXP
www.whirlpool.com
Bottom freezers use less energy to keep food frozen because cold air naturally sinks – this fridge doesn't use extra energy to circulate cold air top to the top.

Gas stove SD362LXS
MANUFACTURER: Whirlpool
www.whirlpool.com
Gas ranges use less energy than electric ranges because gas provides instant heat while electricity has to be converted into heat.

Microwave EM-Z2001S
MANUFACTURER: SANYO
www.sanyo.com
Smaller cooking appliances like microwaves and toaster ovens use less energy than conventional ovens, simply because they have less space to heat.

Choose Energy Star®

Look for the Energy Star® on appliances. To earn the Energy Star®, they must meet energy efficiency criteria set by the US Environmental Protection Agency or the US Department of Energy. Since they use less energy, these products help you save on your electricity bill and help protect the environment by causing fewer harmful emissions from power plants.

KITCHEN

Products

Room Décor

Provenance woven wood shades
MANUFACTURER: Hunter Douglas
www.hunterdouglas.com
Made of bamboo, reeds and grasses.

Capsule pendant lights (over sink)
MANUFACTURER: MIO
www.mioculture.com
Shell is 100% wool, uses CFL bulbs, can be returned to manufacturer for recycling.

Aum recycled sailcloth square grocer bag
MANUFACTURER: Red Flag Design
www.redflagdesign.ca
Made of recycled Dacron sailcloth.

Hemp apron
MANUFACTURER: Ecolution
www.ecolution.com
100% hemp. Company manufactures hemp fabrics in Transylvania under fair-trade conditions.

Non-toxic soy candles
MANUFACTURER: Green Nest
www.greennest.com
100% pure soybean oil, no pesticides/herbicides, no petroleum products, biodegradable.

Bamboo tall vase
RETAILER: www.biomelifestyle.com
Bamboo, a renewable resource.

Chloe vessel
MANUFACTURER: Perch!
www.perchdesign.net
Handmade, low-fire ceramic, non-toxic glaze.

Lunchbox

Laptop lunch system
MANUFACTURER: Laptop Lunches
www.laptoplunches.com
Reusable, recyclable, lead-free, proportion of profits go to schools and charities.

Waste-free Lunches

You can reduce the waste produced from your kids' lunches and save money at the same time. By using reusable containers, drink bottles, cutlery and napkins, you keep trash out of our schools and the landfill. The less schools have to pay to haul garbage, the more dollars they can spend in the classroom. Homemade lunches are a bit more work, but they're also less expensive and healthier than pre-packaged foods.

Bamboo Products (in drawer)

Natural salad servers
MANUFACTURER: Bambu
www.bambuhome.com
100% organically grown bamboo, natural, food-safe wood oil.

Bamboo knife, fork and spoon set
RETAILER: www.greenfeet.com
Bamboo, finished with natural, food-safe oil.

KITCHEN

The Plank cutting board
MANUFACTURER: Bambu
www.bambuhome.com
100% organically grown bamboo, natural, food-safe wood oil, non-toxic adhesive.

Condiment cups
MANUFACTURER: Bambu
www.bambuhome.com
100% organically grown bamboo, natural, food-safe wood oil.

Cloth Products (in drawer)

Mabu cloth (with blue trim)
MANUFACTURER: Sage Creek Naturals
www.sagecreeknaturals.com
100% wood fiber.

Kitchen dishtowel with stripes
RETAILER: www.branchhome.com
Hand-made, vintage fabric (80% hemp and 20% cotton), organically grown on family farms.

Classic hemp oven mitt
RETAILER: www.greenfeet.com
100% hemp, fair trade.

Stainless steel cutlery (in drawer)

Stainless steel cutlery
MANUFACTURER: any!
Stainless steel has a high recycled content and can be endlessly recycled.

Disposable dishware (in drawer)

Bella paper napkins
MANUFACTURER: Marcal Paper Mills
www. marcalpaper.com
100% recycled paper, 30% post-consumer, elemental-chlorine free.

Bagasse disposable plates
RETAILER: www.greenhome.com
Sugar cane stalk, bleached with hydrogen peroxide (no chlorine), compostable.

Compost-ready Dishes

If you must use disposable dishware, look for biodegradable types. They are made of plant materials, and are tough and sturdy. Some can even be washed and reused. All break down in your compost pile just like yesterday's fruit salad.

High heat disposable cutlery
RETAILER: www.greenhome.com
Bio-based resins and potato scraps, heat resistant, compostable.

Clear cups
RETAILER: www.greenhome.com
Made from corn—compostable starch.

Recycled aluminum foil
MANUFACTURER: If You Care
www.ifyoucare.com
100% recycled aluminum.

Lightbulbs (in drawer)

See www.greenseal.org for up-to-date information about compact fluorescent lightbulbs.

Bamboo baskets and bowls

Nesting baskets
MANUFACTURER: Bambu
www.bambuhome.com
Organically grown bamboo, sustainable business practices, percentage of profits goes to environmental charities.

Salad bowl
MANUFACTURER: Bambu
www.bambuhome.com
Organically grown bamboo, non-toxic adhesive, natural food-safe wood oil.

"En Tray" serving tray
MANUFACTURER: Bambu
www.bambuhome.com
Organically grown bamboo.

Laquerware bowls
MANUFACTURER: Bambu
www.bambuhome.com
Organically grown bamboo, non-toxic adhesive, natural lacquer.

Bamboo storage jars
RETAILER: Biome Lifestyle
www.biomelifestyle.com
Made of bamboo.

Glassware

Monaco champagne flutes
MANUFACTURER: The Green Glass Company
www.greenglass.org
Made of recycled Breganze wine bottles.

Off pitcher
MANUFACTURER: esque design glass works
www.esquedesign.com
Hand-made from recycled glass stock, processed in an electric furnace powered by wind energy.

Glass plates
RETAILER: Greenfeet
www.greenfeet.com
Made of recycled glass.

Arácnea stemmed wine glass
MANUFACTURER: La Mediterranea
www.la-mediterranea.es
100% post-consumer recycled glass.

Willow vintage tumblers
MANUFACTURER: The Green Glass Company
www.greenglass.org
Made of recycled Napa Valley wine bottles.

Ceramics

Repainted dishes
MANUFACTURER: Rehabilitated Dishware by Sarah Cihat
www.sarahcihat.com
Reused and rehabilitated second-hand dishes.

Egg cups and egg box
MANUFACTURER: Yoyo Ceramics
www.yoyoceramics.co.uk
Looks like plastic, but made of earthenware, non-toxic paint.

Pottery espresso cups
MANUFACTURER: Eshelman Pottery
www.eshelmanpottery.com
Clay, lead-free glaze.

KITCHEN

Miscellaneous

Stainless steel coffee mug Insulates drinks, reusable, avoids need for disposable cups.

Mikoto bamboo knife block
MANUFACTURER: Ekobo
www.ekobo.org
100% bamboo, filled with bamboo skewers.

Cooking pots
Made of stainless steel (high recycled content, endlessly recylable) and cast iron (long-life material).

Household Cleaning Products

Borax
MANUFACTURER: Dial
www.dialcorp.com
100% borax, a naturally occurring mineral made of sodium, boron, oxygen and water. Does not contain phosphates or chlorine.

Super washing soda
MANUFACTURER: Arm and Hammer
www.thelaundrybasket.com
100% sodium carbonate. No fragrance, surfactants or other additives.

Liquid castille soap
MANUFACTURER: Dr. Bronner's Magic Soaps
www.drbronner.com
Organic ingredients, packaging 100% post-consumer recycled PET plastic, manufacturer committed to social responsibility.

Healthy Housecleaning

Many household cleaners contain toxic chemicals such as formaldehyde or petroleum products. Not only do these chemicals pollute the environment; they can affect the health of you and your family.

There are alternatives. You can do most of the cleaning in your house using simple, natural ingredients such as baking soda, vinegar, hydrogen peroxide, and vegetable-based soaps. They'll do the job, and keep you and the environment healthy.

All purpose cleaner and degreaser
MANUFACTURER: Eco Concepts
www.ecoconceptsusa.com
Green Seal certified. Biodegradable, non-toxic. Manufacturer committed to health, environment and natural ecological balance.

Parsley Plus all surface cleaner
MANUFACTURER: Earth Friendly Products
www.ecos.com
Neutral pH, ammonia-free, biodegradable, plant-based surfactants.

Scrub brushes
Wood with natural bristles.

KITCHEN

All purpose cleaner
MANUFACTURER: Ecover
www.ecover.com
Plant-based ingredients, quickly and completely biodegradable, no animal testing.

Basic H
MANUFACTURER: Shaklee
No chemicals, biodegradable, non-toxic, recyclable packaging, no animal testing.

White vinegar
MANUFACTURER: Heinz or other
No chemicals.

Sun & Earth glass cleaner
MANUFACTURER: Sun & Earth
www.sunandearth.com
Citrus, coconut oil and corn alcohol, no chemicals, non-toxic.

Cleaning powder
MANUFACTURER: Bon Ami
www.bonami.com
No detergents, bleach, perfumes or dyes.

Natural Citrus carpet cleaner
MANUFACTURER: Seventh Generation
www.seventhgen.com
Non-toxic, biodegradable, no cholorine, no phosphates, no chemicals, no perfumes, no animal testing.

Floor Revive
MANUFACTURER: The Hope Company
www.hopecompany.com
No chemicals, waxes or petroleum solvents.

The Natural Oven Cleaner
MANUFACTURER: The Clean Environment Company
www.cleanenvironmentco.com
Non-toxic, non fuming, biodegradable, no toxic chemicals, no animal testing, packaging is recycled and recyclable.

Dishmate dishwashing soap
MANUFACTURER: Earth Friendly Products
www.ecos.com
Coconut oil based surfactants, non-toxic, biodegradable, no fumes.

Seafoam Destain dishwasher powder
MANUFACTURER: Cal Ben Soap Company
www.calbenpuresoap.com
No phosphates, non-toxic, biodegradable.

Rinse Aid
MANUFACTURER: Ecover
www.ecover.com
Plant-based ingredients, biodegradable, no animal testing.

Kitchen bags
MANUFACTURER: BioBag
www.biobagusa.com
Made of GMO-free corn, no polyethylene, biodegradable, compostable.

General purpose microfiber cloth
MANUFACTURER: E-cloth
www.e-cloth.com
Cleans with water (no chemicals needed).

Quickie 530 natural cellulose sponges
MANUFACTURER: Quickie
www.quickie.com
Made of cellulose from plant fibers, biodegradable, compostable.

You Are What You Eat

Stocking your kitchen – and body – with healthy, sustainable food means thinking about where your food comes from and how it was raised.

Where did it come from?

Transporting food around the world uses a lot of fuel and requires a lot of packaging. The most sustainable choice is to seek out food produced nearby – even from your own backyard. Farmers markets are a good place to find local food. Not only do you get the freshest groceries possible, you support your community too.

What is it made of?

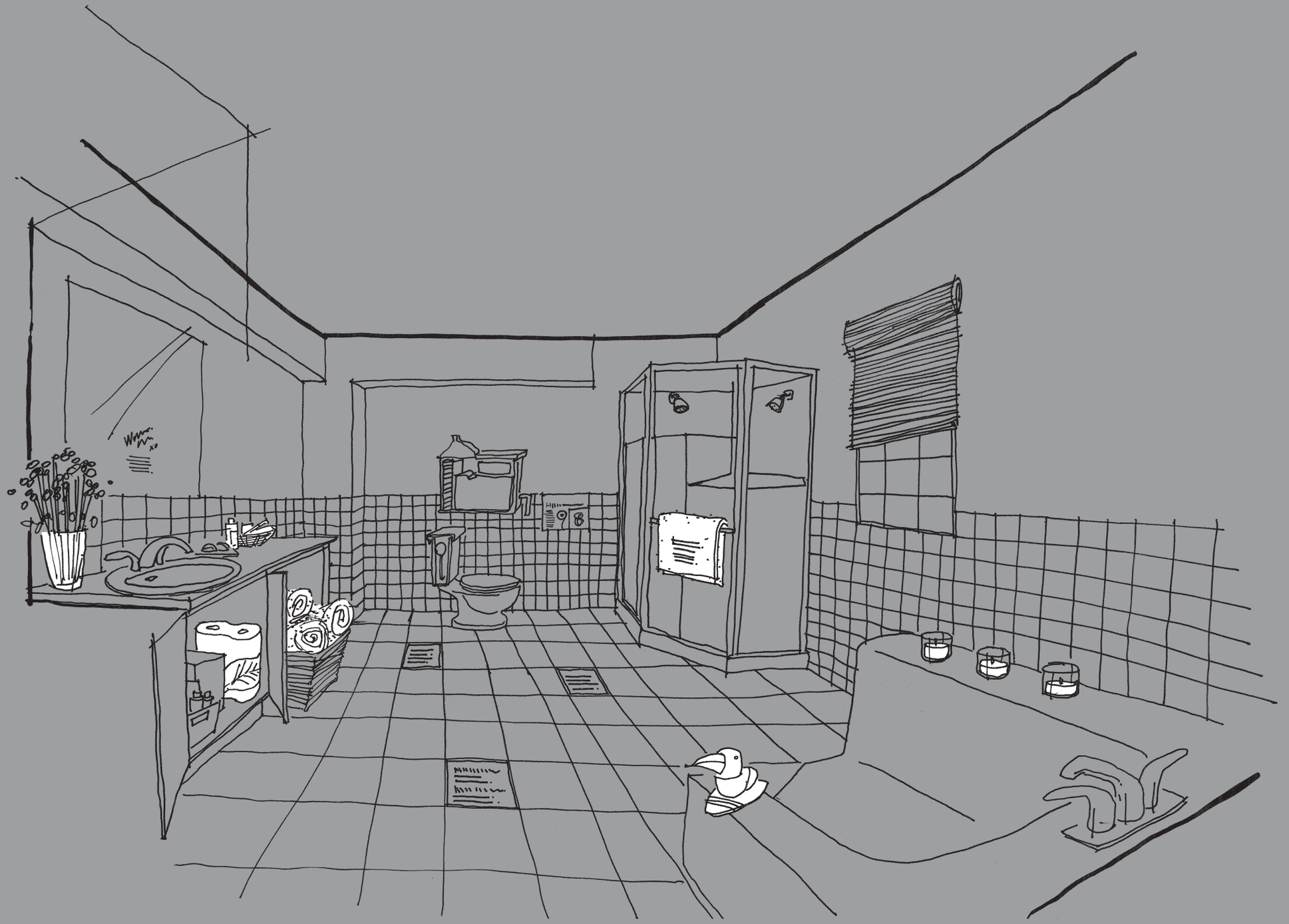
Most of us find it hard to interpret the ingredients listed on a chocolate bar wrapper or frozen dinner. Processed foods like these contain a lot of chemicals and preservatives. Choosing to cook fresh, wholesome food at home gives us better control over what we put into our bodies.

How was it produced?

Labels like Certified Organic, Rainforest Alliance and Fair Trade tell you about the conditions in which your food was raised. There are other things to consider too. Is the fish you're eating endangered? The Blue Ocean Institute updates a list of ocean-friendly seafood choices. Eating sustainably takes some thought. It requires educating yourself and making decisions that involve your head and health as well as your taste buds.

What do sustainable food labels mean?

Certified Organic	No synthetic (or petroleum-derived) pesticides or fertilizers, antibiotics, genetic engineering, irradiation or sewage sludge are used. Organic animals must have access to the outdoors and must eat 100% organic feed without animal by-products or growth hormones.
Rainforest Alliance Certified	Products from the tropics are grown using environmentally responsible practices including integrated pest and disease management, soil and water conservation, fair labor treatment and good community relations.
Fair Trade Certified	Farmers in developing nations receive a fair price for their products; have direct trade relations with buyers and access to credit; and use sustainable farming methods without harmful pesticides or forced child labor. Products must be grown by small-scale producers democratically organized in cooperatives or unions.
Bird Friendly	Organic coffee grown in tropical forests is usually shade-grown, but as of 2007, the Bird-Friendly label was the only certifier of shade-grown products. All products must be organic. Criteria includes maintenance of the tree canopy, diversity in tree and plant species, shade at certain times of the day, and plant borders around streams and rivers.
Blue Ocean Institute, Seafood Watch, Oceans Alive	These organizations don't have labels you'll find on seafood products – they are resources for choosing sustainable seafood. Their websites provide small, printable smart-choices cards you can carry in your wallet to help you make good choices in shops and restaurants.



BATHROOM

BATHROOM

Materials and Finishes

Low-VOC Eco Spec paint
MANUFACTURER: Benjamin Moore
www.benjaminmoore.com
Most paints and finishes release low level toxic emissions into the air for years after application. The source of these toxins is Volatile Organic Compounds (VOCs)—this product contains very low levels.

Dakota Burl cabinets
MANUFACTURER: Environ Biocomposites
www.environbiocomposites.com
Composite board made of agricultural waste.

Terra Green floor tile
MANUFACTURER: Terra Green Ceramics
www.terragreenceramics.com
Made of over 55% recycled glass.

Syndecrete counters
MANUFACTURER: Syndesis
www.syndesisinc.com
Cement-based composite contains up to 41% recycled content from industry and post consumer goods. Includes metal shavings, plastic regrinds, recycled glass chips and scrap wood.

Products

Room Décor

Provenance woven wood shades
MANUFACTURER: Hunter Douglas
www.hunterdouglas.com
Made of bamboo, reeds and grasses.

Blackened wood tray (soap dish)
www.gaiam.com
Hand-made in Honduras, sales help local community.

TranSglass serving vessels (drinking glasses)
MANUFACTURER: TranSglass/Artecnica
www.artecnicainc.com
Made from recycled wine and beer bottles.

Non-toxic soy candles
MANUFACTURER: Green Nest
www.greennest.com
100% pure soybean oil, no pesticides/herbicides, no petroleum products, biodegradable.

Paper Products

Earthfirst Bath Tissue toilet paper
MANUFACTURER: Royal Paper Converting
www.royalpaper.us
100% recycled paper (up to 80% post-consumer), non chlorine-bleached.

Feminine Hygiene

Cotton tampons
MANUFACTURER: Seventh Generation
www.seventhgen.com
100% organic cotton, non chlorine-bleached, packaging is 100% recycled.

Sanitary pads
MANUFACTURER: Natracare
www.natracare.com
Natural plant cellulose, no synthetics, perfume free, non chlorine-bleached, biodegradable.

Choosing Green Paper Products

Do the disposable paper products we flush away need to be made of virgin wood?

The short life of a one-use wonder

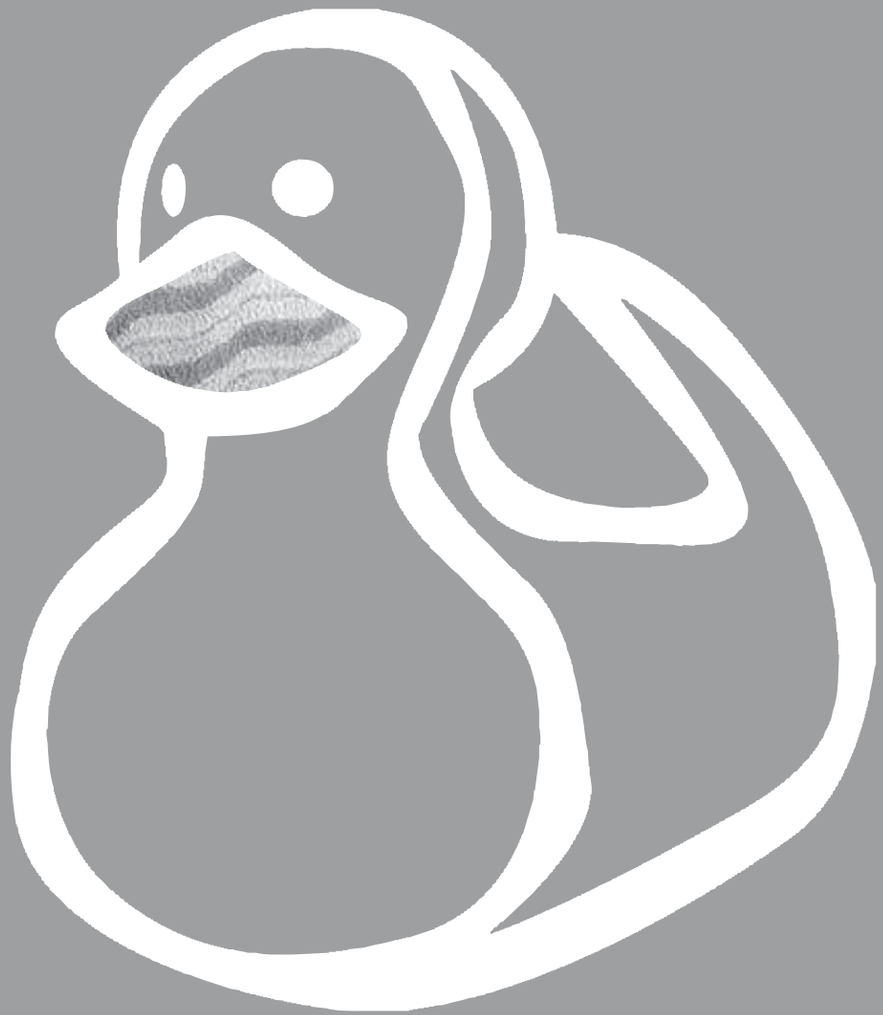
Tissues and toilet paper are used once and then thrown out. You can reduce the impact of these short-lived products by buying 100%-recycled paper products. Those with a high percentage of post-consumer paper channel more paper away from the landfill. And don't worry – products made of recycled paper can be just as soft and absorbent as those made of virgin trees.

Unbleached is the way to go

The pristine white we associate with paper is the product of chlorine bleaching. The chemical compounds that bleaching can release into the environment are harmful to people, wildlife and aquatic life. Unbleached paper towels, toilet paper and tissues work just as well as bleached ones. The only difference is the color.

The diaper debate

You might have wondered, which is better for the environment, cloth or disposable diapers? The answer is: it depends on where you live. Here in Las Vegas, where cutting back on water use is more important than saving landfill space, disposables (unbleached) are probably the best choice. There are other options too: gDiapers combine a flushable core with a washable cover.



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Pantiliners
MANUFACTURER: Seventh Generation
www.seventhgen.com
Non chlorine-bleached, dye- and fragrance-free.

Diapers

gDiapers
MANUFACTURER: gDiapers
www.gdiapers.com
Flushable, elemental-chlorine free, no perfumes, no inks or dyes, no plastic, manufacturer committed to social responsibility.

Bathroom Cleaners

Shower Kleener
MANUFACTURER: Earth Friendly Products
www.ecos.com
Plant-based ingredients, essential oils, formaldehyde free, no petrochemical-based ingredients, neutral pH, ethanol derived from corn.

Bathroom Cleaner
MANUFACTURER: Seventh Generation
www.seventhgen.com
Biodegradable, no chlorine, no petrochemical-based solvents, no phosphates, no glycol ethers, no acids, no caustics, no dyes.

Bac-Out Stain & Odor Eliminator
MANUFACTURER: biokleen
www.biokleenhome.com
Live enzyme-producing cultures, safe to use around children and pets, no animal testing.

Toilet bowl cleaner
MANUFACTURER: Ecover
www.ecover.com
Plant-based ingredients, no chemicals, biodegradable, no animal testing.

Toilet Kleener
MANUFACTURER: Earth Friendly Products
www.ecos.com
Plant-based ingredients, essential oils, formaldehyde free, no petrochemical-based ingredients, neutral pH.

Natural delimer/descaler
MANUFACTURER: Naturally Yours
www.naturallyyoursclean.com
No chemicals, no perfume, biodegradable.

Towels

Anastasia luxury hand-loomed organic cotton towels
MANUFACTURER: Indika Organics
www.indikaorganics.com
Hand-loomed in Turkey, 100% organic cotton, colored with plant and vegetable dyes.

Bamboo towels, white
RETAILER: www.ecochoices.com
100% bamboo, no dyes.

Organic cotton bathrobe
MANUFACTURER: Coyuchi Organic Cotton
www.coyuchi.com
100% organic cotton grown on a cooperative farm.

Personal care

Shave cream
MANUFACTURER: Naturopathica Botanical Skin Care Products
www.naturopathica.com
100% natural ingredients, no animal testing.

Organic aftershave balm & body lotion
MANUFACTURER: Herban Cowboy
www.herbancowboy.com
Certified organic ingredients, US made, vegan, cruelty-free, recycled packaging with soy ink.

Eye liner
MANUFACTURER: Aveda
www.aveda.com
Organic, plant-based ingredients, manufacturer works with indigenous groups in a sustainable business model, and offsets energy use with 100% certified wind power.

Odorless polish remover
MANUFACTURER: Honeybee Gardens
www.honeybeegardens.com
Acetone-free, fragrance-free.

Non Peel-Off nail polish
MANUFACTURER: Honeybee Gardens
www.honeybeegardens.com
Water-based, odor-free, no solvents, no formaldehyde, toluene, dibutyl phthalates or FD& C colors.

Pure shea butter
MANUFACTURER: L'Occitane
usa.loccitane.com
All-natural ingredient. Shea butter sourced from women's collectives in western African, supporting economic recovery and harvesting traditions.

Is beauty skin deep?

The personal-care-product industry is regulated very loosely. This means that your favorite make-up and skin cream may claim to be "natural" or "organic" and still contain unhealthy chemicals. In fact, according to a report from the Environmental Working Group (a non-profit environmental research organization), only 11% of ingredients in personal care products have been tested for safety. It's up to you to check the labels. Here are some ingredients to avoid:

- Antibacterials
- Coal Tar Colors: FD&C Blue 1, Green 3, Yellow 5&6; D&C Red 33
- Diethanolamine (DEA, TEA)
- Quaternium 15 (Formaldehyde)
- Glycol Ethers
- Phenylenediamine (PPD)
- Methyl, Propyl, Butyl and Ethyl Parabens
- Petrolatum
- Sodium Lauryl Sulfate (SLS)
- Toluene
- Mercury and Lead
- Fragrance (contains Phthalates)

BATHROOM

Mango butter hand and body lotion
MANUFACTURER: Kathy's Family
www.kathys-family.com
Certified organic ingredients, no chemicals, biodegradable, reusable and recyclable containers.

Scented lotion
The Merry Hempsters
www.merryhempsters.com
Hemp seed oil, tree-free packaging made of hemp and recycled content.

Exfoliating cleanser
MANUFACTURER: Juice Beauty
www.juicebeauty.com
Organic ingredients.

Liquid rock deodorant
MANUFACTURER: Kiss My Face
www.kissmyface.com
No animal ingredients, no artificial fragrance, no parabens, not tested on animals.

Lavender and Aloe Deodorant
MANUFACTURER: Nature's Gate Organics
www.natures-gate.com
Organic ingredients, cruelty-free.

Organic lip balm
MANUFACTURER: Dr. Bronner's Magic Soaps and Sun Dog's Magic
www.drbronner.com
No synthetic ingredients or preservatives, scented with essential oils, committed to fair-trade practices.

Pure olive oil bar soap
MANUFACTURER: Kiss My Face
www.kissmyface.com
No animal ingredients, artificial fragrance, artificial colors, or animal testing.

Bandages

EcoGuard bandages for kids
MANUFACTURER: All Terrain
www.allterrainco.com
Latex-free for those with allergies, no animal testing.

Insect Repellent

Happy Trails aromatherapy mist
MANUFACTURER: V'TAE
www.vtae.com
DEET free, made with essential oils.

Tooth Care

Preserve toothbrush
MANUFACTURER: Recycline
www.recycline.com
Handle made of recycled polypropylene (yogurt cups). Product can be returned for recycling. Company also makes razors with recycled handles.

Preserve junior toothbrush for kids
MANUFACTURER: Recycline
www.recycline.com
Sales help National Wildlife Federation. Handle made of recycled polypropylene (yogurt cups). Product can be returned for recycling.

Natural anticavity fluoride toothpaste
MANUFACTURER: Tom's of Maine
www.tomsofmaine.com
Flavored with natural oils, no artificial sweeteners, no preservatives or dyes.

BATHROOM

Organic Aloe Vera toothpaste
MANUFACTURER: Kiss My Face
www.kissmyface.com
Organic aloe vera, no animal ingredients or artificial colors, not tested on animals.

Shower Products

Zinc and sage shampoo with conditioner
MANUFACTURER: John Masters Organics
www.johnmasters.com
Certified organic ingredients, not tested on animals.

Mixed Greens shampoo
MANUFACTURER: Modern Organic Products (MOP)
www.mopproducts.com
Certified organic ingredients, vegetable derived cleaning agents

Clean Balance conditioner
MANUFACTURER: Suki
www.sukinaturals.com
Natural essential oils, no synthetics.

Nourishing shampoo
MANUFACTURER: Avalon Organics
www.avalonorganics.com
pH balanced, no animal testing, no parabens, no petroleum-based ingredients, no sodium lauryl/laureth sulfate, no synthetic fragrances or colors.

Shower gel
MANUFACTURER: Pangea Organics
www.pangeaorganics.com
No synthetic preservatives, sulfates or detergents.

Ylang-ylang daily shower spray
MANUFACTURER: method
www.methodhome.com
Biodegradable, not tested on animals.

Kids Products

Spunky surfer dude soft bath toy
www.progressivekid.com
Soft, safe, quick-drying, no plastics.

Super Sensitive bubble bath
MANUFACTURER: California Baby
www.californiababy.com
Fragrance-free, no synthetic additives or sodium lauryl sulfate.

Rainbow bubble bath for kids
MANUFACTURER: Rainbow Research
www.rainbowresearch.com
Not tested on animals.

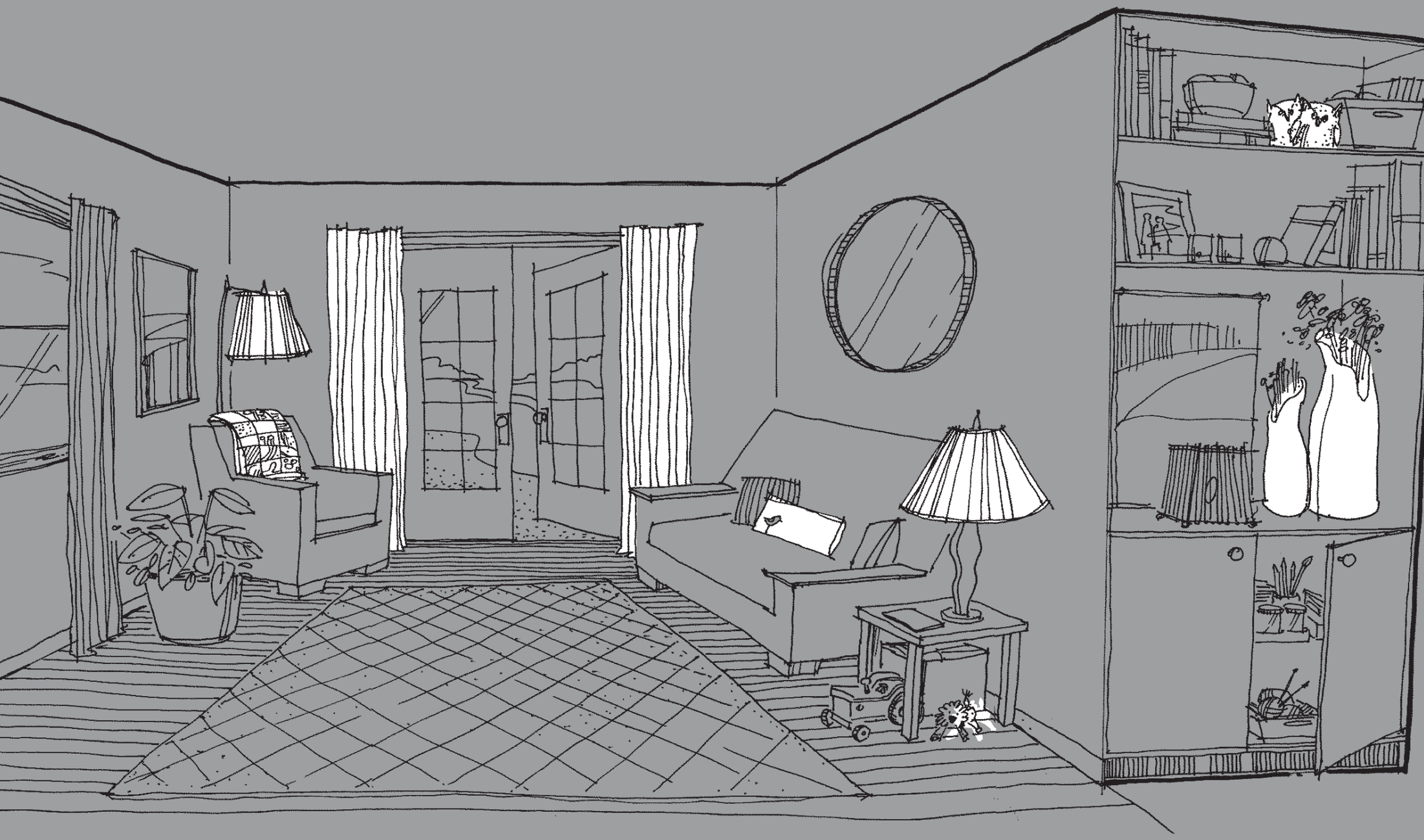
Water-saving Tips

- Inspect all pipes and faucets for leaks. You could save hundreds of gallons of water a day.
- Check toilets for hidden leaks. Place a few drops of food coloring in the toilet tank. Wait 15 minutes and watch for color appearing in the bowl. If you see any, you have a leak.
- Turn off the tap while you shave or brush your teeth.
- Keep showers under 5 minutes.
- Install low-flow faucet aerators.

Did you know that you're probably already using a low-flow showerhead?

Most bathrooms in Las Vegas are fitted with low-flow showerheads, but you probably can't tell. Their water pressure is equal to regular showerheads, but they save impressive amounts of water. With a low-flow showerhead, your daily five-minute shower saves 56 gallons of water in one week. Imagine how much water your whole family saves!

You can also save water by showering instead of having a bath. A five-minute shower can save almost 2/3 the water you would use in a bath.



LIVING ROOM

Materials and Finishes

Low-VOC Eco Spec paint
MANUFACTURER: Benjamin Moore
www.benjaminmoore.com
Most paints and finishes release low level toxic emissions into the air for years after application. The source of these toxins is Volatile Organic Compounds (VOCs)—this product contains very low levels.

Plyboo bamboo flooring
MANUFACTURER: Smith & Fong Company
www.plyboo.com
Laminated bamboo plywood. Low VOC adhesive. Bamboo is a renewable resource.

Dakota Burl cabinets
MANUFACTURER: Environ Biocomposites
www.environbiocomposites.com
Composite board made of agricultural waste.

Products

Window Treatments

Hemp curtains
RETAILER: Rawganique
www.rawganique.com
Organic hemp provides good insulation and is resistant to UV rays.

Provenance woven wood window shades
MANUFACTURER: Hunter Douglas
www.hunterdouglas.com
Made from bamboo, reeds and grasses.

Wall Décor

Picture frames
Vintage, from second-hand stores.

Reclaimed wood frames
MANUFACTURER: Green House Framing
www.recycledframes.com
Reclaimed wood, animal and earth-friendly finish, manufacturer uses renewable energy and sustainable business practices.

Copper coil mirror
MANUFACTURER: Rerun Productions
www.rerunproductions.com
Made of recycled copper.

Are all paints created equal?

No! The paint used in the Sustainable Home is called "low-VOC" paint. Volatile Organic Compounds (VOCs) are released from oil paints and some latex paints as they dry. VOCs can cause eye, nose, and lung irritation, headaches, and in some cases, life-threatening illness.

Choosing high quality "no- or low-VOC" paint will improve the air quality of your home and the environment.

Choosing Healthy Floors

What is the best choice of flooring for your family and the environment?

The carpet dilemma

Wall-to-wall carpet can be one of the least healthy choices for covering your floors. Carpet is often made from synthetic materials that can "off-gas", or give off chemical fumes. Backings and glues can also contain unhealthy chemicals such as formaldehyde. It can be hard to keep carpets clean – they accumulate soil and allergens, and if they get damp, they can house mold or fungus.

Good news!

There are healthier choices on the market, such as natural fiber carpeting made of wool or cotton and recyclable carpets made from recycled pop bottles. Formaldehyde-free carpet pads and glues are also available.

Other choices

If you still want the soft touch of carpets, you can place natural fiber rugs over smooth flooring. Laminate flooring can be made from sustainable materials. Bamboo, for example, is a more sustainable alternative to hardwood – it replenishes itself in four years instead of every 60 to 100. Stone tile is another natural flooring that may be more expensive than synthetic tile, but is very durable.

Pillows

Bird pillow
MANUFACTURER: k studio
www.kstudiohome.com
Shell is 100% hemp; filling is natural feathers and down, manufacturer committed to sustainable manufacturing practices.

Caister flower cushion
RETAILER: Biome Lifestyle
ww.biomelifestyle.com
100% organic brushed cotton.

Furniture

Couch and easy chair
MANUFACTURER: Bean Products
www.beanproducts.com
Wood comes from managed forests, steel is recycled, and the cushions are filled with natural latex foam rubber and organic cotton batting. The cover is made of hemp fabric, a renewable resource that can also be composted when its usable life is over.

W magazine stand
MANUFACTURER: OFFI and Company
www.offi.com
Bent-plywood technique minimizes waste–wood and energy use in manufacturing. Non-toxic, fornaldyhyde-free adhesives.

Bamboo "straight" floor lamp, "vertical bowtie" table lamp
MANUFACTURER: Rerun Productions
www.rerunproductions.com
Made of recycled items with handmade paper shades.

Gold stripes area rug
MANUFACTURER: Garuda Woven Art
www.garudawovenart.com
100% wool, dyed with natural vegetable dyes, chemical-free. Socially responsible: local housing provided for families, flextime, equal pay for men and women (higher than average in Nepal), free medical care, clothes for workers.

Accessories (on shelves)

Juice clock
MANUFACTURER: Bean Products
www.beanproducts.com
Made of 100% recycled detergent bottles.

TranSglass serving vessels
RETAILER: www.re-modern.com
Made from recycled wine and beer bottles.

Chopstick table lamp
MANUFACTURER: Green Home Environmental Store
www.greenhome.com
Recycled post-consumer bamboo chopsticks.

Ahal vase
RETAILER: www.biomelifestyle.com
100% post consumer recycled glass.

Bowler Vine vase
RETAILER: www.biomelifestyle.com
Handmade, naturally gathered objects from the Philippines.

LIVING ROOM

Swoop Softbowls decorative bowls
MANUFACTURER: MIO
www.mioculture.com
100% molded wool, manufacturing uses less than one tenth of the energy needed to make comparable ceramic products.

Stationery and Art Supplies (in cupboard)

Recycle Map Stationery Sampler Pack
RETAILER: www.eco-artware.com
Staionery made of recycled maps and charts.

Folded notecards
RETAILER: www.eco-artware.com
Made from the lokta plant, a renewable paper source.

Envelopes
MANUFACTURER: Waste Not Paper
www.wastenotpaper.com
Earth-friendly products.

Magazine files
MANUFACTURER: Waste Not Paper
www.wastenotpaper.com
Earth-friendly products.

Magazine files (white and brown)
RETAILER: See Jane Work
www.seejanework.com
Made of recycled fiberboard.

Soy, plant-based or beeswax crayons
MANUFACTURERS: Artemis, Stockmar
www.ecoartworks.com
Recycled construction paper
MANUFACTURER: Riverside Paper
RETAILER: www.amazon.com
Made of 90% recycled paper.

Finger puppets
RETAILER: Branch
www.branchhome.com
Natural wool yarn, natural vegetable-based dyes, hand-knit by women's collective dedicated to environmental sustainability and ethical business practices.

Organic and natural fiber yarn

Bamboo knitting needles

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HOME FREE
HIGH PERFORMANCE HOMES

Southern Nevada's Emerging Home Performance with Energy Star Program

A drafty home, rooms that are too hot or too cold, and high energy bills are all common issues for homeowners. A quality installation of a new heating or air conditioning system, buying replacement windows, or adding more insulation may fix part of the problem. But the way to better results is through an integrated "whole-house" approach that looks at your house as a system.

Home Performance with ENERGY STAR, a national program from the U.S. EPA and U.S. DOE, offers a comprehensive and quantitative, whole-house approach to improving energy efficiency, comfort, health safety and durability at home, while helping to protect the environment. The Springs Preserve is a sponsor of the Home Performance with ENERGY STAR (HPwES) program under the name HomeFree Nevada (HFN). An Advisory Board has been developing the program details since August 2008.

Sponsors
Las Vegas Valley Water District/Las Vegas Springs Preserve; NV Energy; Southern Nevada Regional Planning Coalition
Participants
Cities of Las Vegas, North Las Vegas and Henderson; Clark County; Southwest Gas; Nevada Division of Housing; UNLV; UNR; Sierra Club, AIA Nevada; Nevada Conservation League; Southwest Energy Efficiency Partnership (SWEEP); Nevada State Bank; National Renewable Energy Laboratory (NREL); Private Contractors; Private Energy Auditors.

Goals
- Create jobs
- Create a Home Performance Contracting Industry
- Improve the energy efficiency, comfort, health, safety and durability of homes and buildings
- Reduce greenhouse gas emissions

Progress through May 2009
- Las Vegas Spring Preserve selected as program sponsor.
- Secured over $75,000 in funding and in-kind support for the Program Manager.
- Les Lazareck contracted as Program Manager.
- Adopted RESNET's National Standard for Comprehensive Home Energy Audit.
- Established training guidelines requiring Consultant/Contractors be certified as a RESNET Home Energy Rating System (HERS) Rater and a Building Performance Institute (BPI) Building Analyst.
- To offer local BPI Building Analyst written and field test proctoring in June 2009.
- Establish a local RESNET Provider by July 2009.
- Training completed as of May 24, 2009.
  - 31 – Completed Saturn Online's 8-week RESNET and BPI training program
  - 9 – Currently taking Saturn Online's 8-week RESNET and BPI training program
  - 18 – Certified BPI Building Analysts
  - 12 – RESNET HERS Raters (Probationary Period)
  - 4 – Certified RESNET HERS Raters
  - 3 – Trained and certified to serve as the program's mentors overseeing QA/QC

Next Steps
- Submit Home Performance with Energy Star Application – June 1, 2009
- Conduct marketing workshops, webinars and training for consultants/contractors – June 18, 2009
- Utilize the Housing and Urban Development (HUD) Neighborhood Stabilization Funds from Clark County and the cities of Las Vegas and North Las Vegas to ensure homes receive the highest level of energy efficiency and to provide a ready-market and field training opportunities for consultants/contractors.
- Host a community Home Performance Makeover for homeowners and businesses to educate them about the advantages of energy audits and retrofits – Winter 2009

ENERGY STAR

U.S. Environmental Protection Agency
U.S. Department of Energy

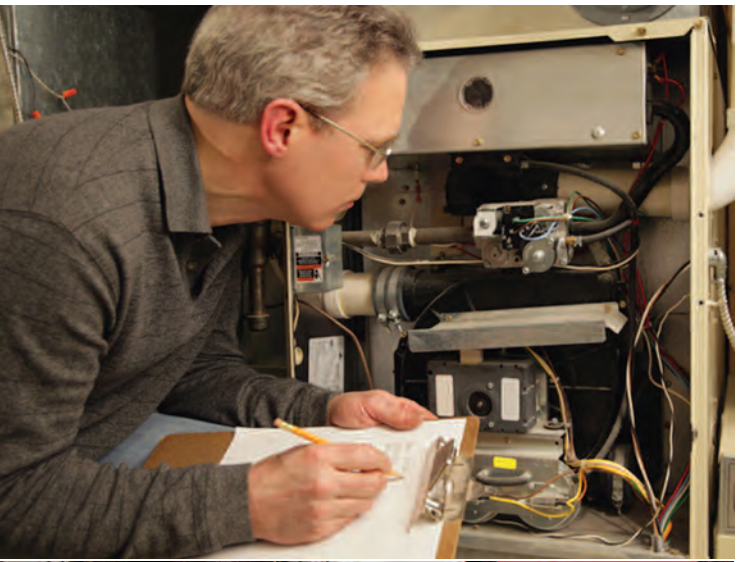
Home Performance with ENERGY STAR®

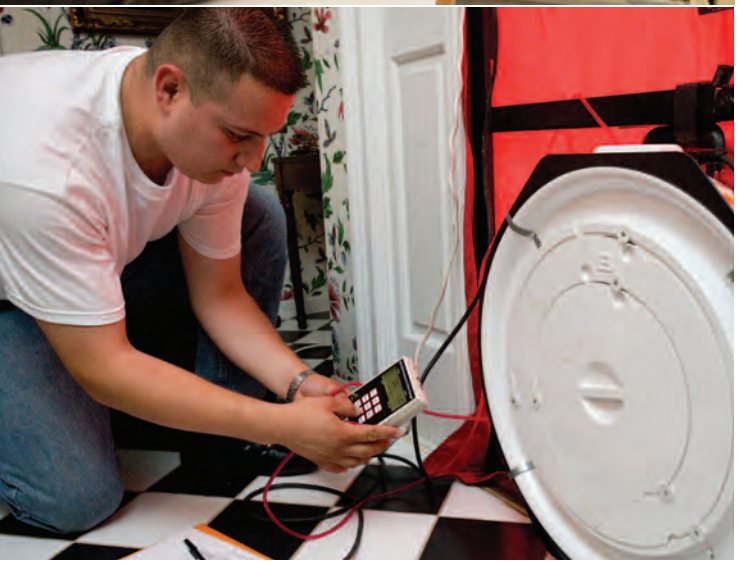
HOME FREE
HIGH PERFORMANCE HOMES

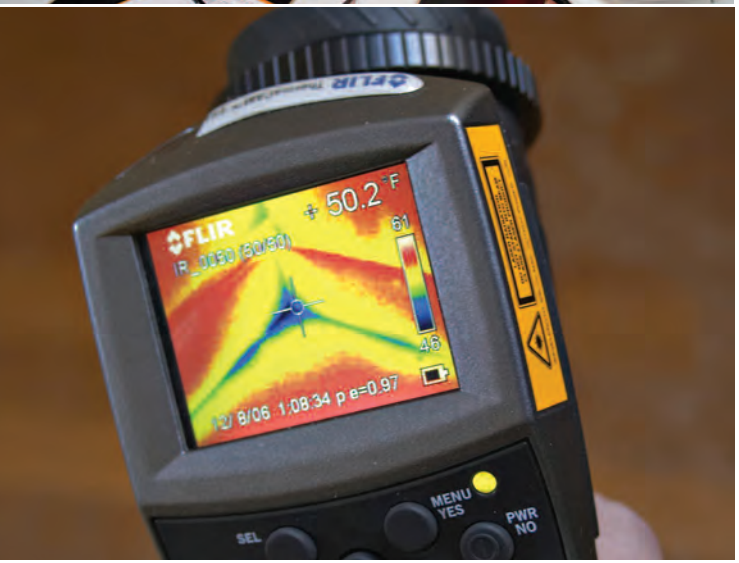
Emerging Soon

Learn more at
www.homefreenevada.org

EPA 430-F-09-001 January 2009







HOME PERFORMANCE WITH ENERGY STAR:

A WHOLE-HOUSE APPROACH

If you're considering making improvements to your home to lower energy bills or fix comfort problems, you should learn about Home Performance with ENERGY STAR—a comprehensive, whole house approach to improving energy efficiency and comfort at home, while helping to protect the environment and fight global warming.

Rather than focusing on a single problem, like an old heating or cooling system, not enough insulation in the attic, or leaky windows, Home Performance with ENERGY STAR looks at how improvements throughout your home can work together to give you the best results.

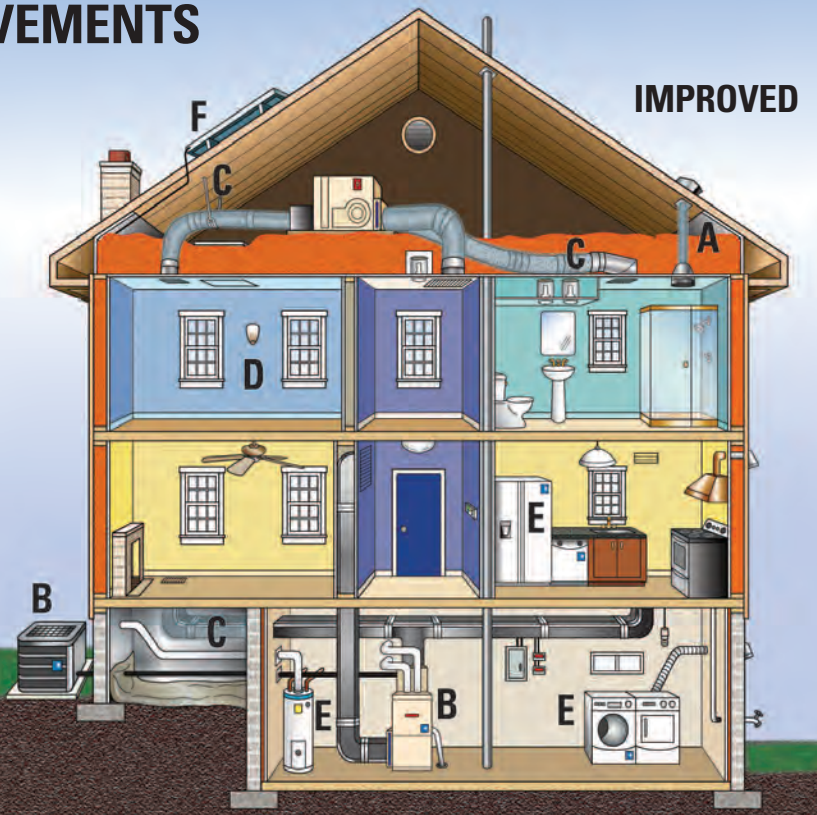
Benefits of Home Performance with ENERGY STAR:

- **Utility bill savings of 20% or more**
- **Fewer drafts and more comfortable rooms**
- **Work performed by specially trained contractors**
- **Third-party quality assurance to make sure work gets done right**
- **Reduced greenhouse gas emissions to protect the environment**

TYPICAL HOME IMPROVEMENTS

BEFORE

IMPROVED



COMMON RECOMMENDATIONS

Each home's problems are different, but there are some recommendations that Home Performance contractors frequently make:

A. Sealing Air Leaks and Adding Insulation. These are critical first steps to improving the energy efficiency of your home.

B. Improving Heating and Cooling Systems. If your furnace or air conditioner is more than 10 years old, your contractor may recommend that you replace it with a unit that has earned the ENERGY STAR label.

C. Sealing Ductwork. Sealing leaks, making sure ducts are straight and properly connected, and insulating where needed, will greatly improve your home's comfort and energy efficiency.

D. Replacing Windows. If it's time to replace your home's windows, your contractor may recommend ENERGY STAR qualified models specific to your climate.

E. Upgrading Lighting, Appliances, and Water Heating Equipment. Energy used in these areas can account for nearly half your utility bill, so there's a big opportunity to save by installing ENERGY STAR qualified products.

F. Installing Renewable Energy Systems. Once energy efficiency improvements have been made to your home, your contractor may recommend additional measures, like installing solar panels or a solar hot water system.

WHAT MAKES HOME PERFORMANCE CONTRACTORS DIFFERENT?

Knowing what energy-efficiency improvements to make in a home and how they can work together requires special expertise. Home Performance contractors are equipped with specialized training and diagnostic tools to determine how your home is performing, and can assist you in achieving your goals, whether it's improving comfort, cutting energy costs, or protecting the environment.

WHAT IS
ENERGY STAR®?

ENERGY STAR is the government-backed program that helps us all to save money and protect our environment with energy-efficient products and practices. Whether you are looking to replace old appliances, remodel your home, or buy a new house, ENERGY STAR can help.

More than 50 kinds of products, including lighting, appliances, televisions, computers, heating and cooling equipment, and even new homes, can earn the government's ENERGY STAR label. ENERGY STAR also offers best practice solutions, like Home Performance with ENERGY STAR, to make your home more comfortable and reduce your energy costs.

For more information on Home Performance with ENERGY STAR, visit www.energystar.gov/homeperformance or call 1-888-STAR-YES (1-888-782-7937)

WHAT TO EXPECT FROM
HOME PERFORMANCE WITH ENERGY STAR

A COMPREHENSIVE HOME ENERGY AUDIT

The Home Performance with ENERGY STAR process starts with an interview with you, the homeowner, to help your contractor understand concerns you have about your home's energy use and comfort.

After the interview, the contractor will inspect your home to determine where improvements are needed—inspecting your home inside and out, including the heating and cooling equipment, duct systems, and even lighting and appliances. Your contractor will also inspect your attic, basement, or crawlspace (if you have them), and run diagnostic tests to check the home's envelope and duct leakage, or use an infrared camera to find the trouble spots.

Your contractor will also review your utility bills to compare them to similar homes in your area and determine how energy is potentially being wasted in your home.

GETTING THE WORK DONE

After the assessment, your contractor will prepare a detailed work proposal outlining recommended improvements and can also show you how they may qualify for special financing or other incentives, where available. Once you decide which improvements to make, your Home Performance contractor will help you get the job done right.

When work is completed, your contractor will run another set of tests to show the difference the improvements have made. Their work is also spot-checked by independent third-parties, so you can have added confidence that your job will be done correctly.

TYPICAL RESULTS

The comprehensive approach offered by Home Performance with ENERGY STAR will make your home more comfortable and energy efficient. Depending on the improvements you choose, you may be able to save 20% or more on your annual utility bill. And because you're using less energy, you'll also be helping to protect the environment.

Recycled/Recyclable—Printed with vegetable oil based inks on recycled paper (Minimum 50% post-consumer content)

ENERGY STAR

U.S. Environmental Protection Agency

Seal and Insulate with ENERGY STAR®

EPA 430F-09-052 March 2009

WHY SEAL AND INSULATE?

Sealing and insulating the "envelope" or "shell" of your home—its outer walls, ceiling, windows, doors, and floors—is often the most cost effective way to improve energy efficiency and comfort. A knowledgeable homeowner or skilled contractor can save up to 20% on heating and cooling costs (or up to 10% on total annual energy bills) by sealing and insulating.

To Seal and Insulate with ENERGY STAR:

- **Seal air leaks** throughout the home to stop drafts,
- **Add insulation** to block heat loss in winter and heat gain in summer, and
- **Choose ENERGY STAR** qualified windows when replacing.

BENEFITS

- **Lower utility bills**
- **Improved comfort, especially during summer and winter**
- **Reduced noise from outside**
- **Less pollen, dust, and insects entering your home**
- **Better humidity control**

GETTING STARTED

If your attic is accessible and you like home improvement projects, check out our DIY Guide to Sealing and Insulating with ENERGY STAR, available at energystar.gov. The Guide offers step-by-step instructions for sealing common air leaks and adding insulation to the attic.

For a more comprehensive approach, hire a contractor that uses special diagnostic tools to pinpoint and seal the hidden air leaks in your home. Ask local insulating companies or home energy professionals if they offer these services.

WHAT IS
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ENERGY STAR is the government-backed program that helps us all to save money and protect our environment with energy-efficient products and practices. Whether you are looking to replace old appliances, remodel your home, or buy a new house, ENERGY STAR can help.

More than 60 kinds of products, including lighting, appliances, televisions, computers, heating and cooling equipment, and even new homes, can earn the government's ENERGY STAR label. ENERGY STAR also offers best practice solutions, like sealing and insulating your home, that can improve comfort and reduce energy costs.

HELP PROTECT
THE ENVIRONMENT

Did you know that the average home produces twice the greenhouse gases as the average car? In fact, 15 percent of all greenhouse gases are generated from the energy used in houses nationwide.

ENERGY STAR was introduced by the U.S. Environmental Protection Agency (EPA) in 1992 as a voluntary partnership to reduce greenhouse gas emissions through increased energy efficiency. Today, ENERGY STAR offers consumers and businesses energy-efficient solutions to save energy, save money, and help protect the environment for future generations.

For more information on Seal and Insulate with ENERGY STAR, visit www.energystar.gov or call 1-888-STAR-YES (1-888-782-7937)

SEAL AND INSULATE WITH
ENERGY STAR

• SEALING AIR LEAKS

Many air leaks and drafts are easy to find because they are easy to feel—like those around windows and doors. But holes hidden in attics, basements, and crawlspaces are usually bigger problems. These leaks can make your home uncomfortable, waste energy, and cost you money.

Different types of products can be used to address different types of air leaks:

- Caulk, spray foam, and weather stripping for sealing smaller leaks;
- Plywood, drywall, or rigid foam insulation for covering larger holes; and
- Sheet metal and high-temperature caulk to close gaps around chimneys and furnace flues.

• ADDING INSULATION

Insulation helps keep your home warm in the winter and cool in the summer. There are several common types of insulation—fiberglass (in both batt and blown forms), cellulose, rigid foam board, and spray foam. Reflective insulation (or radiant barrier) can also help save energy in hot, sunny climates. When correctly installed, each type of insulation can deliver comfort and lower energy bills, especially during the hottest and coldest times of the year.

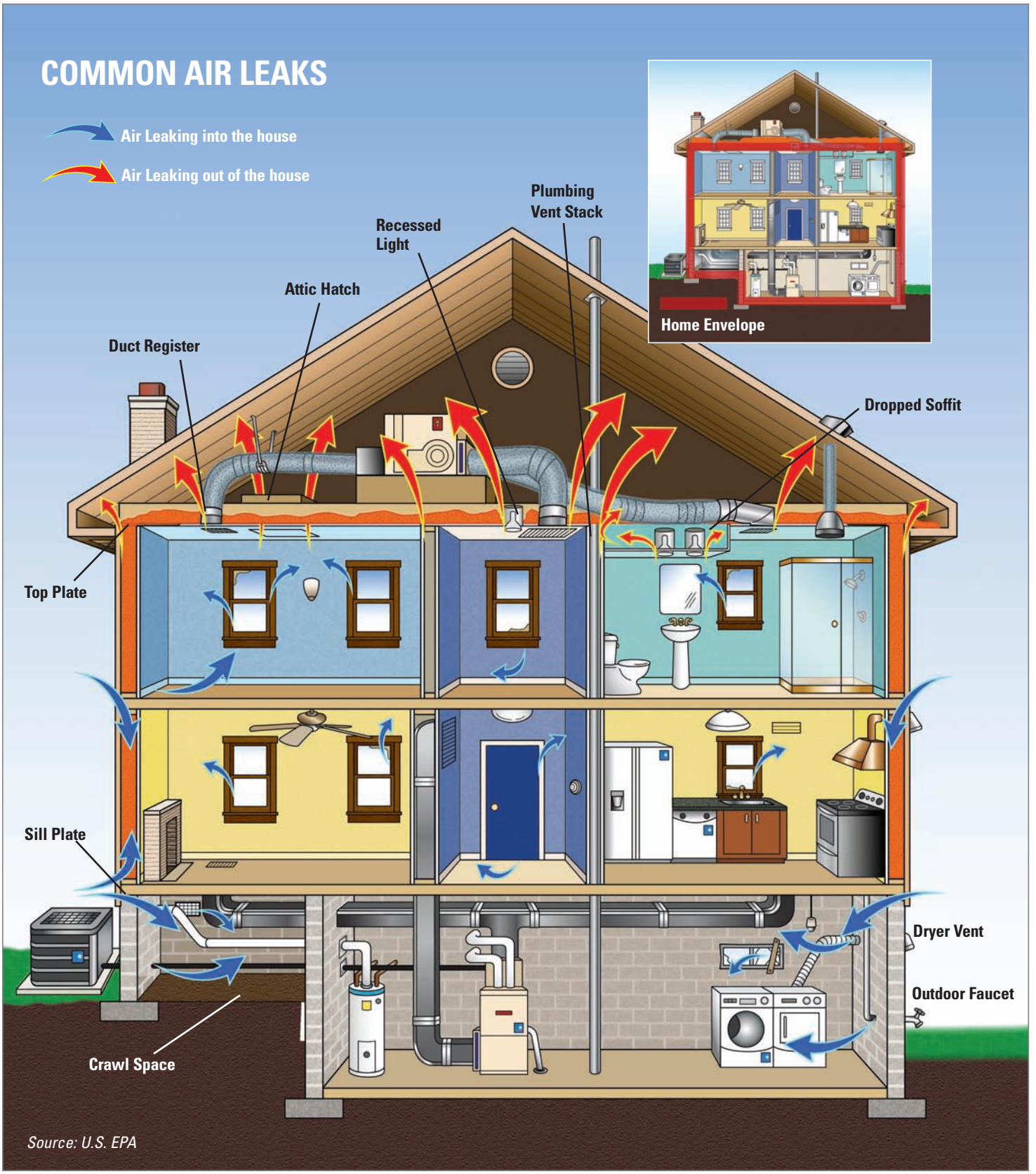
Insulation performance is measured by R-value—its ability to resist heat flow. Higher R-values mean more insulating power. Different R-values are recommended for walls, attics, basements and crawlspaces, depending on your area of the country.

Because insulation works best when air is not moving through or around it, it is important to seal air leaks before installing insulation to ensure that you get the best performance.

• CHOOSING ENERGY STAR QUALIFIED WINDOWS

Windows are an important part of your home's envelope. If you are replacing windows as part of a home improvement project, choose ENERGY STAR qualified models to save energy and money, increase the comfort of your home, and protect your valuable possessions from sun damage. Also look for ENERGY STAR qualified doors and skylights.

COMMON AIR LEAKS



Source: U.S. EPA

United States
Environmental
Protection Agency
6202J
Washington DC 20460

ENERGY STAR

U.S. Environmental Protection Agency

Duct Sealing

EPA 430-F-09-050 February 2009

WORKING WITH
A CONTRACTOR

Many homeowners choose to hire a professional contractor for duct improvement projects. Most heating and cooling equipment contractors also repair ductwork. Look for a contractor that will:

- Inspect the whole duct system, including the attic, crawlspace, garage and basement as needed.
- Evaluate the system's supply and return air balance. Many systems have air return ducts that are too small.
- Repair damaged and disconnected ducts and straighten out flexible ducts that are tangled or crushed.
- Seal all leaks and connections with mastic, metal tape, or an aerosol-based sealant.
- Seal all registers and grills tightly to the ducts.
- Insulate ducts in unconditioned areas with duct insulation that carries an R-value of 6 or higher.
- Include a new filter as part of any duct system improvement.
- Evaluate air flow after repairs are completed.
- Ensure there is no backdrafting of gas or oil-burning appliances, and conduct a combustion safety test after ducts are sealed.

HIGH UTILITY BILLS?
STUFFY ROOMS? DUSTY HOUSE?
IT COULD BE YOUR DUCTS.

A duct system that is properly sealed and insulated can make your home more comfortable, energy efficient, and safer. Making improvements to your duct system can:

Improve Comfort

Sealing and insulating ducts can help with common comfort problems, such as rooms that are too hot in the summer or too cold in the winter.

Enhance Indoor Air Quality

Fumes from household and garden chemicals, insulation particles, and dust can enter your duct system, aggravating asthma and allergy problems. Sealing ducts can help improve indoor air quality by reducing the risk of pollutants entering ducts and circulating through your home.

Promote Safety

During normal operation, gas appliances such as water heaters, clothes dryers, and furnaces release combustion gases (like carbon monoxide) through their venting systems. Leaky ductwork in your heating and cooling system may cause “backdrafting,” where these gases are drawn back into the living space, rather than expelled to the outdoors. Sealing leaks can reduce this risk.

Save Money

Leaky ducts can reduce heating and cooling system efficiency by as much as 20 percent. Sealing and insulating ducts increases efficiency, lowers your energy bills, and can often pay for itself in energy savings. Plus, if you’re planning to install new heating and cooling equipment, a well-designed and sealed duct system may allow you to downsize to a smaller, less costly heating and cooling system that will provide better dehumidification.

Protect the Environment

When power plants burn fossil fuels to make electricity, they release greenhouse gases. By sealing ductwork and using less energy at home, you can help reduce these emissions and fight global warming.

WHAT IS
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More than 60 kinds of products, including lighting, appliances, televisions, computers, heating and cooling equipment, and even new homes, can earn the government's ENERGY STAR label. ENERGY STAR also offers best practice solutions, like duct sealing, that can make your home more comfortable and reduce your energy costs.

For more information on duct sealing,
visit www.energystar.gov
or call
1-888-STAR-YES (1-888-782-7937)

KNOW YOUR DUCTS

In houses with forced-air heating and cooling systems, ducts are used to distribute conditioned air throughout the house. But in typical houses, about 20% of the air that moves through the duct system is lost due to leaks, holes, and poorly connected ducts. The result is higher utility bills and difficulty keeping the house comfortable, no matter how the thermostat is set.

Some signs that your home may have leaky, poorly insulated, or inefficient ducts:

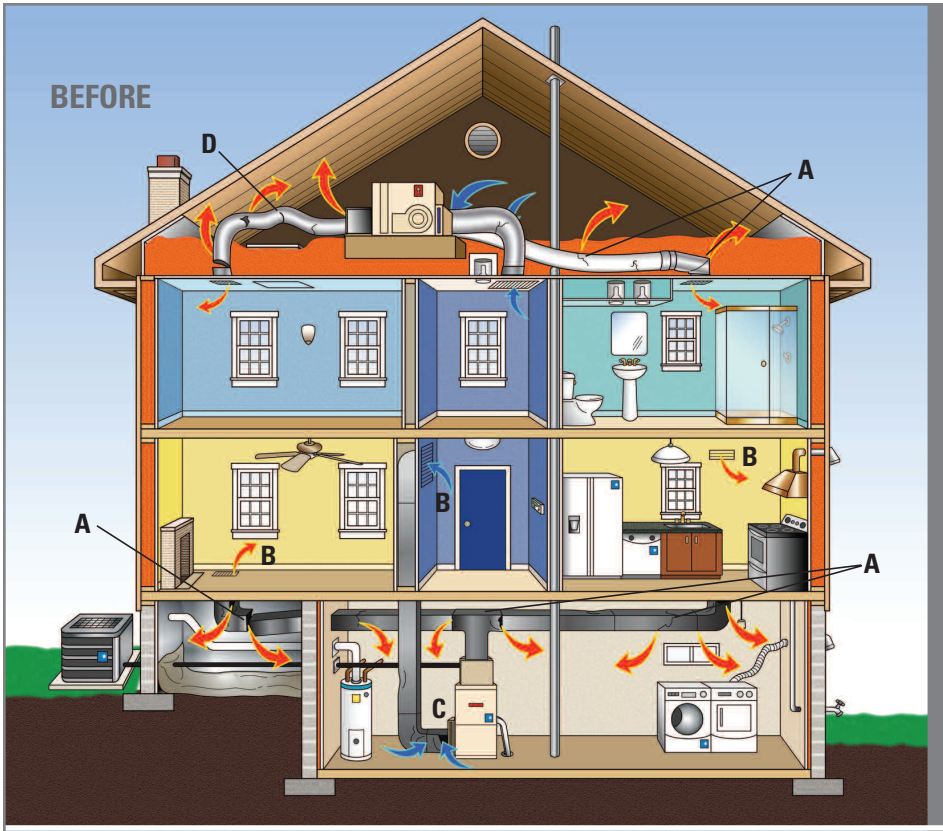
- you have high summer and winter utility bills;
- you have rooms that are difficult to heat and cool;
- you have stuffy rooms that never seem to feel comfortable;
- your ducts are located in an attic, unfinished basement, crawlspace, or the garage;
- you find tangled or kinked flexible ducts in your system.

SIMPLE STEPS TO IMPROVING DUCT PERFORMANCE

Because ducts are often concealed in walls, ceiling, attics, and basements, repairing them can be difficult. But there are things that you can do to improve duct performance in your house.

Start by sealing air leaks using mastic sealant or metal tape and insulating all the ducts that you can access. Never use duct tape, as it is not long-lasting.

Also, make sure that the connections at vents and registers are well-sealed where they meet the floors, walls, and ceiling. These are common locations to find leaks and disconnected ductwork.



COMMON DUCT PROBLEMS AND SOLUTIONS

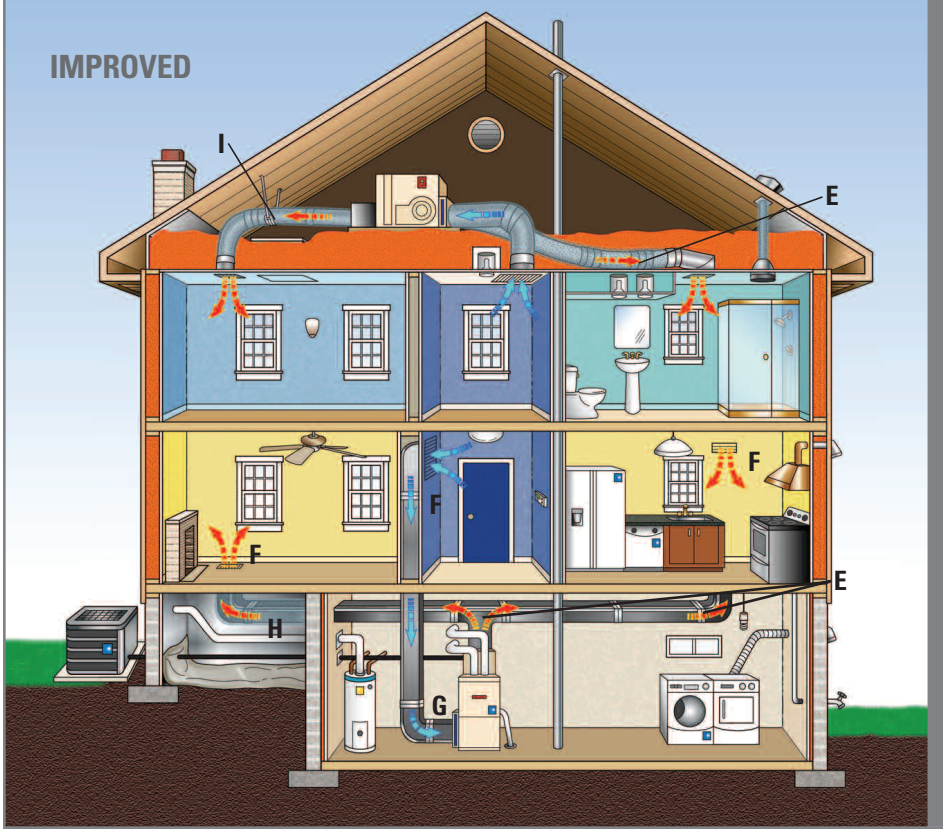
PROBLEMS:

A. Leaky, torn, and disconnected ducts

B. Poorly sealed registers and grills

C. Leaks at furnace and filter slot

D. Kinks in flexible ductwork restricting airflow



SOLUTIONS:

E. Properly sealed ducts

F. Registers and grills tightly sealed to ducts

G. Sealed furnace and filter slot

H. Well-insulated ducts in unfinished areas

I. Straightened flexible ducts with improved airflow

United States
Environmental
Protection Agency
6202J
Washington DC 20460

Seeking a New Residence Best Practices

Dr. Robert Fielden, NCARB, FAIA

1. Identify the Right Neighborhood.

Answer the following questions and rank each neighborhood based on how it meets household needs.

- Are the CC&R's flexible and user friendly?
- Are other neighborhood properties being upgraded?
- Are employment opportunities available for household members within two miles?
- Does the neighborhood have convenient access to public transit?
- Are basic shopping needs close-by and within comfortable walking distances?
- Are parks, schools and churches within comfortable walking distances?
- Are the streets designed to carry only neighborhood traffic?
- Is the neighborhood and its surrounds pedestrian friendly and bike friendly?
- Are front yards connected to support children's outdoor play?
- Are there adequate areas for community gardens and locations where neighborhood "Block Parties" can be held?

2. Find the Right House.

Answer the following questions and rank each residence based on how it meets your household needs.

- Can this house be viewed primarily as a "Home" rather than a "Real Estate Investment" for future sale?
- Is this a residence that can remain useful into retirement?
- Is this an affordable house to operate, maintain and improve over time?
- Does the property have a greater southern and northern exposure than east and west exposures?
- Does the property have a clear southern exposure to farm for solar energy?
- Does the house face east and have a protected porch and entrance from southwest and northerly winds?
- Can the east exposure be adequately shaded to reduce the summer morning sun?
- Can the west exposure be adequately shaded to reduce the afternoon sun?
- Can the south exposure be treated to allow farming for the winter sun and be shaded in the summer?
- Are air-conditioning condenser units located on the ground where they can be shaded?
- Are the backyard or side yards large enough to improve for new functional uses?

3. Upgrading a Residence.

The following techniques and applications can be used to make a home more sustainable, advance its purpose, increase its value and extend its useful life by one-hundred years.

- Follow each of the recommended procedures and improvements in the preceding segments of this series of documents.
- If you need to repaint the house use a ceramic based paint to reflect the heat; it can also be used to successfully recoat many roofing materials.

- If you have to replace siding, install the new siding over a 2” minimum layer of high efficiency foam-board. Set all edges of the foam-board in calking and tape joints. Also calk around all penetrations.
- If you have to replace roofing, install a reflective layer of building wrap over the existing roof sheathing, beneath the new roofing material.
- If you add new roof insulation, staple it to fill the voids beneath the roof sheathing and between the roof framing and down to the existing ceiling joists.
- Find ways to shade the exposed envelope of the house from the sun. The roof can be shaded using trees, which also adds moisture to the air that lowers the ambient temperature around the house. A solar shade can also be installed over flat roofs to shade the roof surface.
- Wall surfaces can be shaded by adding trellises around the house a minimum of two-feet away from the wall. A planted trellis keeps the sun off of the wall surface and blocks the solar radiation from increasing temperatures along the wall. The distance between the trellis and the wall allows increased heat from solar radiation to thermo-cycle and vent upwards back into the atmosphere, thus lowering temperatures along the wall surfaces.
- Trellises along the east wall and south wall should be planted with deciduous materials so during the winter the sun can be used to naturally warm the house. The west wall trellis should be planted with an evergreen material. Grape vines are ideal and edible south and east wall screening and shading materials.
- Trees should also be planted strategically to reduce the heat island effect created by solar absorption on hard surfaces, including decomposed granite often found in desert landscapes. Added solar temperatures absorbed by concrete, asphalt pavement and other hard ground surfaces release into the atmosphere at night when temperatures fall, increasing nighttime temperatures around the house and needs for additional indoor air-conditioning comfort.
- As well, trees and shrubbery should be strategically planted to shade air-conditioning condenser units that are ground mounted. The shade and added moisture produced by plant materials help lower ambient temperatures around the equipment which allows it to operate with greater efficiently and more economically. Operating at lower ambient temperatures also extends the effective operating lives of the mechanical units.
- Install “sola-tubes” in every room of the house and eliminate any need for daytime electrical lighting.
- Create an outdoor “Nevada Room” for living as much of daily-life as possible outside year around. A shaded patio or gazebo can provide for all of the creature comforts out-of-doors including provisions for a kitchen, a living area and even sleeping quarters. As many as eight months each year can be spent living out of doors, including at least five months where sleeping outdoors is comfortable.
- Create an “Edible Landscape” throughout the yard. If there is a desert garden with decomposed granite, plant vine foods like cucumbers, melons, and squash; shading the rock groundcover reduces the surrounding heat island effect.
- Keep a small number of pet chickens in the backyard for fresh eggs and eliminate spiders, scorpions and other worrisome insects from your yard.
- Compost everything possible, including old newspapers and magazines for conversion to soil amendments and moisture retention in the yard.

Useful Energy-Saving Web Links

Energy Audits and Calculators

Energy Star: http://www.energystar.gov/index.cfm?fuseaction=HOME_ENERGY_YARDSTICK.showGetStarted
http://www.energystar.gov/index.cfm?fuseaction=home_energy_advisor.showGetInput
NV Energy: http://www.nvenergy.com/saveenergy/home/energyaudit.cfm
Lawrence Berkley National Laboratory: http://hes.lbl.gov/
U.S. Department of Energy: http://www.energysavers.gov/your_home/energy_audits/index.cfm/mytopic=11160
http://www1.eere.energy.gov/calculators/homes.html

Room by Room Guide to Energy Efficiency

Energy Star At Home: http://www.energystar.gov/index.cfm?c=products.es_at_home

No Cost, Low Cost and Added Cost Energy Tips

Alliance to Save Energy: http://ase.org/content/article/detail/965
American Council for an Energy-Efficient Economy: http://www.aceee.org/consumerguide/checklist.htm
Energy Trust of Oregon:
http://www.energytrust.org/residential/existinghomes/forms/LowCostRentersChecklist.pdf
NV Energy: http://www.nvenergy.com/saveenergy/home/energytips.cfm
Washington State University: http://www.energyideas.org/documents/factsheets/hometips.pdf

Information on Specific Products/Techniques

Appliances: http://www1.eere.energy.gov/consumer/tips/appliances.html
CFLs (Compact Fluorescent Lights): http://www.energystar.gov/index.cfm?c=cfls.pr_cfls
Heating and Cooling: http://www.energy.gov/heatingcooling.htm
Insulation and Air Sealing: http://www.energy.gov/insulationairsealing.htm
Landscaping: http://www.energy.gov/landscaping.htm

Nevada Resources

DSIRE: http://www.dsireusa.org/incentives/index.cfm?re=1&ee=1&spv=0&st=0&srp=1&state=NV
Nevada Energy Office: http://energy.state.nv.us/efficiency/residential/existing.htm
U.S. Department of Energy: http://www.energy.gov/nevada.htm
http://apps1.eere.energy.gov/states/state_specific_information.cfm/state=NV

Overview of Each State's Resources for Residential Solar and other Funding Opportunities

State-by-State Database of Incentives: www.dsireusa.org

Rebates

Energy Star Rebate Locator: http://www.energystar.gov/index.cfm?fuseaction=rebate.rebate_locator
NV Energy: http://www.nvenergy.com/saveenergy/home/rebates/

Tax Credits

Energy Star: http://www.energystar.gov/index.cfm?c=products.pr_tax_credits
U.S. Department of Energy: http://www.energy.gov/taxbreaks.htm
IRS: http://www.irs.gov/newsroom/article/0,,id=206871,00.html

Weatherization Grants

Nevada Housing Division: http://www.nvhousing.state.nv.us/weatherization/weatherization%20index.htm
Help of Southern Nevada: http://www.helpsonv.org/

Energy Tips for Kids

NV Energy: http://www.nvenergy.com/kids_conservation/
U.S. Department of Energy: http://www.eere.energy.gov/kids/
Energy Star: http://www.energystar.gov/index.cfm?c=kids.kids_index