



## Landscaping

Proper landscaping can add more than beauty to your home. Did you know that carefully positioned trees can save up to 25% of a typical household's energy for heating and cooling? This could save you between \$100 and \$250 in annual energy costs. Studies show that summer daytime air temperatures are three to six degrees cooler in tree-shaded neighborhoods than in treeless areas. Deciduous (leaf shedding) trees planted on the south and the west sides of your house will keep you cool in the summer and allow sun to shine through the windows in the winter. Planting a coniferous (evergreen) windbreak to block winter winds may reduce winter heating bills by up to one-third.

Shading your air conditioning unit can reduce energy costs by 10%. However, be careful not to plant shrubs so close that they interfere with yearly maintenance work or air movement around the unit.

### Important:



**Always remember to plan your landscaping projects around all overhead electrical lines in the area, keeping in mind the mature growth of the trees. Never plant a tree within 25 ft. of a power line.**

**Also, remember to call 811 before starting any digging project.**

**For more information visit:**  
**U.S. Department of Energy (DOE)**  
**Energy Efficiency and Renewable Energy**  
[www.energysavers.gov](http://www.energysavers.gov)

**Iowa Energy Center**  
[www.energy.iastate.edu/efficiency/residential](http://www.energy.iastate.edu/efficiency/residential)

# ENERGY EFFICIENCY



The Power of Human Connections



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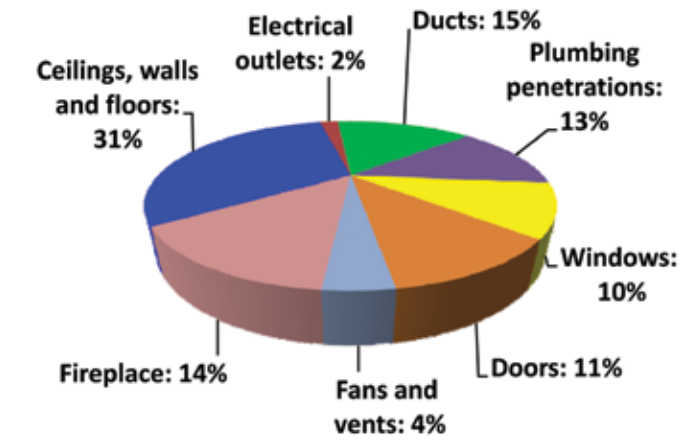


cost-effective

energy-efficient

environmentally responsible

## Sources of Air Leaks in a Typical Home



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

According to the U.S. Department of Energy, you can save 10 percent or more on your energy bills just by plugging air leaks in these places in your home.

The average Iowa family spends more than half of its annual household energy bill on heating and cooling. That's a significant number, but you can dramatically reduce these costs - up to 20 percent (according to Energy Star®) by making some simple energy-saving weatherization and insulation improvements to your home. In addition, with a little attention to proper ventilation, you can protect your home from moisture damage year-round, reduce problems caused by ice dams on the roof during the winter and significantly cut summer cooling costs. As a bonus, these projects can extend the life of your home and may increase the resale value of your property.



## Weatherization

You can increase the comfort of your home and reduce your heating and cooling needs up to 30% by investing in proper insulation and weatherization products. Even the most energy-efficient heating and cooling system will not significantly reduce your energy bills if your ductwork leaks or your walls, attic, windows and doors are not well insulated. Energy efficiency improvements will not only make your home more comfortable, they will yield long-term financial rewards. Such improvements may also help you qualify for an energy efficiency mortgage. In addition, your home may have a higher resale value.

The average home has enough leaks around its windows and doors to equal one open 3' X 3' window. To determine if your doors or windows have leaks, wet your fingertips and run them around the door or window frame to feel for a draft or hold up a tissue and see if it waves. Seal leaks between the door and its frame with

weather stripping. Fill cracks between window frames and walls with caulking.

Uncoated, single pane windows account for a huge energy loss. Today's high-efficiency windows are three to four times more energy-efficient than windows commonly installed a decade ago. Special "low-e" or solar selective coatings greatly reduce the amount of heat that is transmitted through window glass and thus decrease heat loss in winter and heat gain in summer.

According to the U.S. Department of Energy, the easiest and most cost-effective way to improve your home's energy efficiency is to add insulation to the attic. To find out if you have enough attic insulation, measure the thickness of the existing material. If there is less than seven inches of fiberglass or rock wool, or six inches of cellulose, you could most likely benefit by adding more. If your attic has ample insulation and your home still feels drafty, chances are you need to add insulation to the exterior walls as well. Substantial savings can also be achieved by insulating basement walls and crawl spaces.



## Heating and Cooling

Without a doubt, electric heat pumps are today's most energy-efficient home heating and cooling equipment. Heat pumps capture heat that occurs naturally in the atmosphere, ground or water to provide heating and cooling for your home. Because heat pumps transfer rather than create hot or cool air, they can deliver up to \$3 worth of comfort for every \$1 spent for energy. For more information about the benefits of heat pumps for year-round comfort, call your Touchstone Energy® Cooperative today. We can provide information to help you make the appropriate choice of equipment for your home.

## Maintenance

You can save money and increase the comfort in your home by properly maintaining and upgrading your equipment. In fact, by combining proper equipment maintenance and upgrades with appropriate insulation, weatherization and correct thermostat settings, you may be able to cut your energy bills in half.

You will see multiple benefits when you take these steps to save energy. Immediately, your home will be more comfortable, and you will soon realize savings on your energy bills. The additional pleasure will be in knowing, through wise use of electricity, you are helping the environment and delaying the need to build additional power generating plants.

## Great Ways to Gain More Value from Your Energy Dollars

If the words "saving energy" bring to mind turning down the thermostat and sacrificing comfort, forget that image. Today, energy efficiency means getting the most from every kilowatt-hour you purchase by using state-of-the-art technologies to provide home comfort.

### Using a whole house approach to energy efficiency will

- cut your utility bills
- increase your comfort
- be good for the planet

## Household Appliances

After heating, cooling and water heating equipment, your refrigerator uses more energy than any other single household appliance. Fortunately, the new models are as much as 50% more efficient than they were just a decade ago. Therefore, it may be wise to replace your old refrigerator even if it is operating trouble free.

Other appliances that have greatly increased energy-efficient technology are dishwashers, clothes washers and dryers. Front-loading tumble-action clothes washers can cut energy use by up to 70%, plus you save water and detergent. Studies show clothes actually get cleaner with the gentler tumbling action. Dryers with temperature and moisture sensors reduce wrinkling, over-drying and wasted energy. Reduced operating costs will more than make up for the higher price of new energy-efficient appliances over their lifetimes.