



Landscaping may be your best long-term investment for reducing heating and cooling costs.

Landscaping for Energy Efficiency

Are you looking for cost-effective yet eye-pleasing ways to lower your energy bills? Planting trees, shrubs and hedges could be the answer. In fact, landscaping may be your best long-term investment for reducing heating and cooling costs.

A well-designed landscape will:

- Cut your summer and winter energy costs dramatically.
- Protect your home from winter wind and summer sun.
- Reduce consumption of water, pesticides, and fuel for landscaping and lawn maintenance.

Computer models devised by the U.S. Department of Energy predict that the proper placement of only three trees will save an average household between \$100 and \$250 in energy costs annually. On average, a well designed landscape provides enough energy savings to return your initial investment in less than 8 years.

Before you purchase your trees, you need to consider the mature height of

the tree, the distance from the house and the direction.

Shade trees should be planted on the south east, south and south west side of your home to provide maximum summertime roof shading. Deciduous trees with high, spreading crowns work best on the south side. Trees with crowns lower to the ground are more appropriate to the south east and south west where shade is needed for morning and lower afternoon sun angles. You also want to plant to shade air conditioning units and as many windows as possible.

Properly placed landscaping can also provide excellent wind protection which will reduce heating costs considerably. The best windbreaks block wind close to the ground by using tree and shrubs that have low crowns. Evergreen trees and shrubs planted to the north and northwest of the home are the most common type of windbreak.

For more information on energy efficiency, visit linncountyrec.com.

Local Graduates Awarded College Scholarships

Linn County REC recently awarded scholarships to area high school seniors. The following students will receive a scholarship for the 2011 - 2012 college year:

Allison Kindig, Cedar Rapids, is considering several Universities and will major in biomedical engineering.

Taylor Steckler, Cedar Rapids, will attend the University of Iowa and major in Pharmacy.

Thomas Henry, Palo, will attend Iowa State University and major in Engineering.

Luke Serafin, Swisher, is considering several Universities and will major in Mathematics.

Carlyn Hill, Fairfax, will attend Iowa State University and major in Mechanical Engineering.

Taylor Van Scoyoc, Solon, will attend the University of Iowa and major in Nursing.

Eric Fritz, Amana, will attend Kirkwood Community College and major in Industrial Maintenance/HVAC.

Kara Culjat, North Liberty, will attend Kirkwood Community College and major in Culinary Arts.

Jared Donaldson, Springville, will attend Kirkwood Community College and major in Industrial Maintenance/Electrician.

Lincoln Schrock and Daniel Baudler received the Allen Feickert Memorial Scholarship to attend power line school at Northwest Iowa Community College.



Maintain A Safe (and Energy Efficient) House Year Round

May is National Electrical Safety Month and is a great time to check your home for potential electrical hazards. So if you want to maintain a safe (and energy efficient) house, here are some simple ways to keep your appliances, outlets and alarms working all year long.

Clean Cold Coils

Refrigerators are one of the highest energy-consuming products in your home. In fact, if your current refrigerator was made before 1993, it uses twice the amount of energy used by new models.

Vacuum the coils every three months to eliminate dirt buildup that reduces efficiency and creates fire hazards. To clean condenser coils:

Step 1: Unplug the refrigerator.

Step 2: Pull or unscrew the vent plate that protects the coils.

Step 3: Clean the coils with a vacuum hose, using a brush to wipe off dust you can see.

Clean Air = Safe Air

Air conditioners need to be cleaned at the beginning of every season to keep them running safely and efficiently. To clean your air conditioner:

Step 1: Shut off power to the unit and remove the filter cover

Step 2: Use a vacuum extension brush on either the coils or the visible air fins.

Step 3: Pull out the filter and clean or replace according to the instructions in the manual.

Step 4: Outside, clear leaves and debris away from the condensing unit. Hose off dirt.

Smoke Alarms

On average, eight people die in a home fire each day in the United States, for a total of nearly 3,000 fatalities every year.

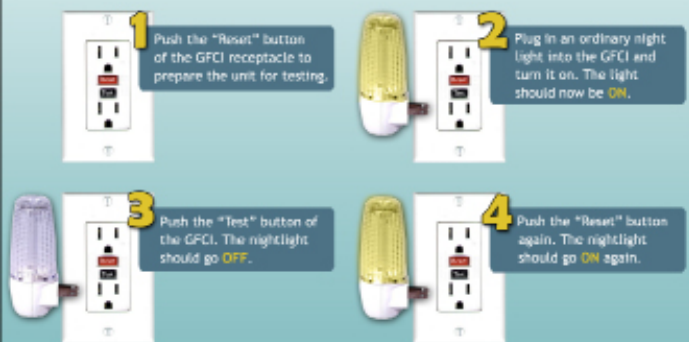
Smoke alarms should be installed in every bedroom, outside each sleeping area, and on every level of the home.

Test smoke alarms monthly by pushing the TEST button or using other procedures recommended by the manufacturer. Smoke alarm batteries should be changed at least once a year. If an alarm “chirps” or “beeps” to indicate low batteries, change them right away. Replace all smoke alarms at least every 10 years.

How to test electrical outlets

Since the 1970s ground fault circuit interrupters (GFCIs) have saved thousands of lives, helping cut the number of home electrocutions in half. The safety devices prevent deadly shock by quickly shutting off power to the circuit if the electricity flowing into the circuit differs from the amount returning. The safety devices should be used in any indoor or outdoor area where water may come into contact with electrical products.

GFCIs should be tested once a month to make sure they're working properly. To test a device, follow these four steps:



Source: Electrical Safety Foundation International

Outlet Serves as Fail-safe

Ground fault circuit interrupters (GFCIs) are designed to protect people from electrical shock and electrocution. A GFCI constantly monitors electricity flowing in a circuit. If it senses any loss of current, it quickly switches off power to that circuit.

GFCIs can be installed at the main service panel or in place of ordinary outlets. Typically, GFCIs are installed in areas where water and electricity mix in close proximity, such as a bathroom, garage, kitchen, or basement.

GFCIs can be damaged or wear out due to voltage surges from lightning, utility switching, or normal use. Just because an outlet works does not mean that the GFCI is functioning. GFCIs should be tested monthly to ensure they are in working condition.

Check Cords

Check the electrical cords in your home to make sure they are not worn or frayed and keep cords out of traffic areas in the home.

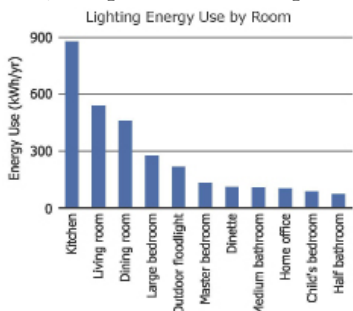
How To Upgrade Your Incandescent Light Bulbs

Many people are choosing replacements for their standard incandescent light bulbs to save money or energy, because they've heard of new LED options, or in anticipation of the phase-out of standard incandescent bulbs in the U.S. starting in 2012.

If you've shopped for replacement light bulbs, you probably noticed that you have many options and the alternative bulbs are more expensive. Rensselaer Polytechnic Institute's Lighting Research Center (LRC) offers the following steps to choose replacement light bulbs.

Step 1. Choose which bulbs to replace first

You can save energy and money by replacing any standard incandescent light bulbs in the house. Start with lights that are on for long periods of time per day and use the most power. In most houses, this means first replacing lights in the kitchen, living room and dining room.



Step 2. Gather information about current bulb

Bring this information to the store:

- Determine the light output from your current bulb, measured in lumens. Look at the wattage of your incandescent bulb and use this ENERGY STAR table to determine how many lumens are needed.

| Incandescent bulb power (watts) | Light output (lumens) |
|---------------------------------|-----------------------|
| 25 | 250 |
| 40 | 450 |
| 60 | 800 |
| 75 | 1100 |
| 100 | 1600 |

- Note the type and shape of light bulb you're replacing, such as a general use light bulb or a reflector lamp.



- Measure the length and maximum diameter of the bulb to make sure the new bulb will fit in your light fixture.

Step 3. Choose the new bulb type

Halogen

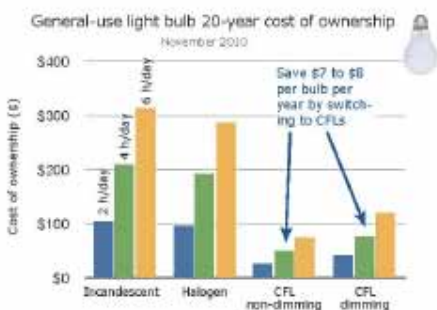
Halogen bulbs are similar to standard incandescent bulbs, but use about three-quarters of the energy. They provide the same quality of light as standard incandescent bulbs and can be used with any dimmer, but because of the higher bulb price, halogens cost about the same to own as standard incandescents, as shown in the graphs.

CFL (compact fluorescent lamp)

CFLs use about one-third the energy of incandescent bulbs and are likely to be the least expensive replacement option in many fixtures in the home, as shown in the graphs. Keep in mind that CFLs require a few minutes to reach full light output.

LED (light-emitting diode)

As expected for a new technology, there is a wide variation in cost and performance among LED products. Most general-use LED bulbs currently available produce less light than a 60W incandescent bulb. LEDs are leading to new product forms, such as this LED downlight bulb, which can replace reflector lamps in recessed cans.



Analysis based on manufacturer-provided performance data, two products per light source. General service lamp is 60W incandescent A-lamp equivalent, light output 750-900 lm. Reflector lamp is 65W BR30 incandescent equivalent or LED downlight bulb, 375-700 lm. Cost of ownership includes lamp replacement and electricity costs at current prices. Data collected November 2010.

Step 4. At the store, choose which light bulb to buy

- Find the right kind of bulb, such as a general purpose bulb or the specific reflector lamp you are replacing, for example, "PAR38".
- Find a bulb that provide about the amount of light you need based on the lumens marked on the package.
- Look for a color temperature of "2700K" or "3000K" on the package.
- Make sure the bulb is rated for exterior use if it will be installed in an outdoor fixture.
- If your light has a dimmer, either use halogen bulbs or look for a CFL or LED package that says it's dimmable and then try one bulb for compatibility before buying more.
- Look for the ENERGY STAR label on the package. This is a mark of quality assurance in addition to energy savings.
- Make sure the new light bulb is the same size or smaller than the old one so it will fit properly in the fixture.

Step 5. After installing...

Save the packaging and receipt in case the bulb fails during the warranty period. To save even more energy:

- upgrade to a more efficient light fixture,
- use occupancy or vacancy sensors, or
- if you are renovating or building, work with a lighting designer to achieve higher quality lighting with less energy use.



LCREC Model Home Showcases Geothermal This June

Learn the benefits of having the most energy efficient heating and cooling system available on the market today by visiting the Linn County REC geothermal model home. The model home is currently under construction at 2970 Diamond Mil Lane in Coralville and will be showcased during the Iowa City Parade of Homes.

General Contractor Aaron Klosterman Construction designed and built the home with energy efficiency in mind. The 4,400 square foot house features a 5 ton geothermal heating and cooling system that was installed by J and S Plumbing and Heating.

This all electric, HERS rated home will be featured June 4, 5, 7, 9, 11, 12.



- 1 sheet frozen puff pastry dough
- 1 lb. fresh asparagus spears (16 spears)
- 1 pkg. (8 oz.) Philadelphia® Cream Cheese, softened
- 1/2 cup grated Parmesan cheese
- 5 fresh basil leaves, chopped
- 3 Tbsp. fresh lemon juice
- 1 pinch sea salt
- 2 Tbsp. olive oil
- 2 Tbsp. shaved Parmesan cheese

Preheat oven to 400°F. Remove pastry dough from freezer and let thaw for 10 minutes. While dough is thawing, wash and trim asparagus so it is 1-1/2 inches shorter than width of pastry sheet. In a medium bowl, combine cream cheese, grated Parmesan, chopped basil leaves and lemon juice. Set aside. Unfold dough onto a baking sheet sprayed with cooking spray. Cut into 4 equal rectangles. Separate rectangles slightly on sheet. Spread cream cheese mixture onto each of the pastry rectangles, not quite to edges. Press 4 asparagus spears onto each rectangle, alternating directions. Sprinkle pastries with sea salt and drizzle with olive oil. Bake for 18 to 22 minutes until pastries are golden brown. Remove from oven, cut each pastry in half and transfer to serving platter. Garnish with a sprinkle of shaved Parmesan cheese and serve. **Yield: 8 servings.**

What's YOUR Incentive?

Energy efficient interior lighting can save up to 75% of the energy that an incandescent light source would use. This is done while maintaining lighting levels, increasing life of lamps and reducing waste heat generated by bulbs.



Linn County REC has residential incentives for the purchase of ENERGY STAR® rated:

- Compact fluorescent lights (9 watt minimum)
- Compact fluorescent hard wired fixtures
- T-8 and T-5 4 foot and 8 foot new fixtures and replacement lamp and electronic ballast sets
- LED lamps and fixtures (10 watt minimum)
- Ceiling Fan Lighting Kits
- Ceiling Fans with pin type CFL fixture

For more information on incentive amounts and to download forms with terms and conditions, visit our website at www.linncountyrec.com.

To receive an incentive from Linn County REC:

- Must be or have been a member at service location
- Complete ALL fields on incentive form
- Provide a copy of the sales receipt
- Provide ALL additional required documentation (i.e. **Energy Star® verification**)
- Must be received within six months of installation

Members contacted for additional information on incomplete/unsigned forms will be assessed a 10% reduction of incentive amount. Need help filling out an incentive form? Visit the video center on our website for a step by step tutorial on the filing process. Questions about our incentive program? Contact our office to speak with member services.

