

LEDs Add Holiday Twinkle



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It definitely is fun for families to decorate their homes during the holiday season, both indoors and outdoors, but it can increase your electric bill much more than most people realize. Including the cost of the bulbs, the five-year cost (typical life of many bulbs) for using standard colored bulbs during the holidays can be as high as \$150.

Obviously, the best alternative to consuming all this energy is using nonelectric decorations or many fewer lights. As many find with their families, the holidays are a special time for children and they will resist this option. It would help to have a talk with your children and explain to them about the long-term benefits of energy conservation during the holidays and year-round. You might be surprised how receptive they will be.

When you compare standard holiday colored lights at the store, you will see designations such as C9, C7 and mini-bulbs. C9 bulbs are the largest ones and each bulb can use up to 10 watts of electricity. C7 bulbs are slightly smaller and typically use about five watts per bulb. The mini-bulbs use just a fraction of a watt, but they are not nearly as bright as C9 or C7 bulbs.

The newest technology in energy efficient lighting is a LED (light emitting diode). This is a solid-state device which does not create light by heating an element inside the bulb. Most of the electricity they use ends up as light instead of heat as with standard incandescent bulbs. The red numerals on a digital alarm clock use efficient LED technology.

To create energy efficient larger colored holiday bulbs, several LEDs are mounted inside of one bulb. This bulb has a standard base to screw into your existing holiday fixtures. A colored C7 bulb with three LEDs inside of it will be as bright as a standard C7 bulb, but it will use only 0.15 watts of electricity.

These colored C7 LED bulbs have the same shape as regular holiday lights, so you cannot distinguish them from standard colored bulbs. In addition to the electricity savings, the colored shell is made of durable plastic instead of glass. Also, with LED technology, they do not get very hot so they are safer around children and on a dry tree.

The only drawback to these colored LED bulbs is their ini-

tial higher cost. You can purchase individual bulbs and screw them into an existing string or purchase ready-to-use string and bulb sets. With a life of more than 60,000 hours, you will likely never have to replace them in your lifetime. Considering this long life and the electricity savings, they should pay back their higher initial cost.

Another efficient option is using standard or LED mini-bulbs wherever possible. Both use much less electricity than standard colored lights and are relatively inexpensive to buy. As with the larger LED bulbs, the LED mini-lights last literally forever and do not get very hot.

If you already have your larger C7 and C9 bulbs and don't want to purchase new LED ones right now, consider installing fiber-optic converters on the bulbs so you need to use fewer bulbs. These converters snap over the bulbs and have many protruding fiber-optic fibers extending out from the bulbs. These fibers carry the light to the ends and create a large bright cluster around each bulb.

The best energy efficiency tip is to use fewer bulbs and light them for a shorter time period each night. Perhaps you can negotiate with your children for a two- or three-hour time period for the lights to be on each night. Plug them into a timer so you don't forget to turn them off. Check the maximum wattage rating of the timer so you do not exceed it. This is particularly good for outdoor lights. In my neighborhood, some homeowners still leave their outdoor lighted decorations on all night long.

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Use as many reflective ornaments as possible to multiply the effect of fewer lights. Decorating around mirrors is an effective method to accomplish this. Small and large mirrored globe ornaments hanging near lights on a tree are particularly effective. If you make ornaments yourself, use reflective metallic threads which are available at most craft shops.

The following companies offer efficient holiday lights/decorations: American Lighting, (800) 880-1130, www.american-lighting.com; Bronners, (800) 361-6736, www.bronners.net; Holiday Creations, (303) 694-1121, www.holidaycreations.com; Kreinik Mfg., (800) 537-2166, www.kreinik.com; and Miles Kimball, (800) 546-2255, www.mileskimball.com.

Send inquiries to James Dulley, Cooperative Connections, 6906 Royalgreen Dr., Cincinnati, OH 45244

This Fall, Change a Light to Change the World

U.S. Secretary of Energy Samuel W. Bodman takes the "Change a Light" pledge at the Department of Energy (DOE), challenging 120,000 DOE employees and all Americans to replace at least one traditional light bulb with an energy-efficient compact fluorescent bulb at home.

"The Department of Energy encourages all Department employees and all Americans to answer the president's call to be more energy efficient," Secretary Bodman said. "Taking small and easy steps, such as replacing light bulbs with newer, more efficient compact fluorescent bulbs, can add up to real, substantive savings."

If every household in America changed one bulb to a CFL, combined efforts would save 5.6 billion kilowatt-hours of electricity per year or \$526 million a year in electric expenses. If everyone at the Department changed one light bulb, it would save enough energy to light 3,065 homes for a year, would reduce carbon dioxide emissions equal to removing 886 cars from our parking lots and would have the same effect as planting 1,260 acres of trees. To take the pledge and for more information, visit: <http://www.energy.gov/pledge.htm>.

The "Change a Light" campaign runs from Oct. 4 to Nov. 30.

For the past seven years, DOE and the Environmental Protection Agency's (EPA) "Change-a-Light, Change-the-World" program has encouraged consumers to save energy and money by installing compact fluorescent light bulbs. In addition to internal campaign promotional efforts, DOE and EPA have reached out to members of Congress, governors and state energy and local officials to join the campaign by encouraging their constituents to participate.

Salmonson Re-elected to National Development Board

Linda Salmonson, economic development manager at East River Electric Power Cooperative in Madison, S.D, has been re-elected to the board of directors for the National Association of Development Organizations (NADO) for a one-year term.

Salmonson oversees the Rural Electric Economic Development (REED) Fund, through which East River and

its 21 member systems provide loans that help develop new value-added projects, businesses, industries, civic improvements and jobs in eastern South Dakota and western Minnesota.

Based in Washington, D.C., NADO provides advocacy, education, research and training services for the nation's regional development organizations.



Linda Salmonson



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