

## Time to switch off the 100-year-old bulb

By Matt Siegel

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Would you drive a car that was invented 100 years ago and never improved upon? Do you wash your clothes the way people did 100 years ago?

Of course not. Then why do you light your home with a light bulb invented 100 years ago?

How much of the energy that enters an incandescent light bulb actually gets turned into light? Fifty percent, you say? No, maybe 40 percent. No, in fact only 10 percent of the energy that goes into them gets turned into light, the rest is given off as heat. That's why you could bake a cake as a kid in your easy bake oven with just a 100-watt light bulb.

So what's one to do? Light candles? Go to sleep at sunset? Only if you want to, but there is a better way to light your home or business.

Compact fluorescent light bulbs use about 25 percent of the energy and last seven to 10 times longer compared with incandescent light bulbs (i.e., a 100-watt incandescent bulb can be replaced with a 27-watt CFL bulb).

Compact fluorescent light bulbs are available as spotlights, flood lights, three-way, dimmable lights and in a variety of wattages. There are many brands being sold; try different brands to find one that lasts and supplies good light for your needs.

Did you know North Carolina imports more than \$6 billion for our energy needs each year? If each of the 8 million people in North Carolina changed just one 60-watt incandescent to a 13-watt compact fluorescent bulb, it would save 1.5 million — yes, million — kilowatt hours each day and reduce our peak load needs by 360 megawatts. This would also save \$44 million a year in utility bills for consumers that would stay in local economies.

What do I do with those CFLs when they do finally burn out? CFLs do contain a very small amount of mercury, so they should be disposed of properly. The Buncombe County Landfill's household hazardous waste program will recycle them.

What's in store for the future of lighting beyond CFLs? The newest type of energy efficient lighting is Light Emitting Diodes, which use 90 percent less electricity and last up to 50 times longer than an incandescent bulb. LEDs are being used in traffic lights and exit signs almost everywhere you look. The U.S. Department of Energy predicts that this new technology could eventually save \$125 billion in U.S. household electric bills per year.

While they are not now affordable for residential light, the city of Raleigh installed LED lighting in one floor of its municipal building's parking garage in 2006 and has already quantified a 40 percent energy savings and a great improvement in lighting on that floor.

Matt Siegel is director of the WNC Green Building Council.

For more information about simple things you can do to become more energy efficient or how to become a member or volunteer of the Green Building Council, please visit our Web site [www.wncgbc.org](http://www.wncgbc.org). You can find upcoming events, links and information on modern building practices and energy related issues. Please contact them with any questions at: The Green Building hotline call 254-1995 or

e-mail [info@wncgbc.org](mailto:info@wncgbc.org).

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