

## Think Globally, Change a Light bulb Locally

Here's something that brought the future into focus for me lately. As I was perusing an architectural journal, I noticed a design competition for the New York City of the future. The odd thing was, the illustration showed the streets as water. Reading further, I found that several of the contestants had projected that the streets of Manhattan would be at least partially under water within the next 100 years, due to melting land ice and rising sea levels. It's a real possibility.

**The USA, with less than 5% of the world's population, produces a quarter of the world's climate-changing emissions.**

Consider the consequences of our (in)action: think for a moment about the social and political ramifications of millions of refugees around the world needing to relocate because of the rising sea level. Add to that those who will be displaced by drought in Africa, or by increasingly severe storms around the world – particularly on the coasts. Multiply the Katrina/New Orleans problem by the number of low-lying cities, countries and islands around the world, most with fewer resources for adaptation than we have...what will these pressures do to the world's already shaky political scene?

**Let's think again about changing a light bulb.** Given the circumstances, let's change all of them, and then turn as many off as possible. Using daylight is even better. Let's watch the energy bill shrink and save the endangered Ohio White Christmas at the same time. The New Yorkers (and the people of Florida, New Orleans, Venice, and millions in the low-lying areas of the world) will thank us.

*"If every American home replaced just one light bulb with an ENERGY STAR, we would save enough energy to light more than 2.5 million homes for a year and prevent greenhouse gases equivalent to the emissions of nearly 800,000 cars."*

*EPA Energy Star website*

### **Compact fluorescent light bulbs (CFLs)**

The options are expanding almost every day; you can now go fluorescent in a multitude of ways, and with style. There are bulbs with the traditional shape, and mini-bulbs that will fit in any spot a traditional bulb will. There are spotlights, down-lights, candelabra fixtures, flood lamps, and outdoor bulbs. You can now buy anti-bug-bulbs, three-way bulbs, and bulbs for dimmer switches. There's even an LED (light-emitting diode) nightlight with a lifetime warranty that uses a whopping 0.3 watts. You can find CFLs in most stores now, with Lowe's and Walmart appearing to have the best selection in Alliance right now. Can't find the right bulb in the right brightness? Try online.

### **Energy Star**

The Energy Star label means that the bulb met requirements for a warmer shade of light (similar to incandescent, unless otherwise labeled), no buzz, and an instant light-up, with no flicker. If you need more brightness, you can get the "craft bulbs," "bright," or Sylvania's "Daylight Extra," which is very bright and white – like bright, high-altitude

sunlight. Be sure to keep your receipts – Energy Star rated CFL’s will have a warranty, to ensure you get your money’s worth.

### **Mercury Questions**

According to the EPA, a CFL contains on average 5 mg of mercury (old thermometers contained about 500 mgs). The bulbs will need to be carefully recycled as hazardous material (NOT thrown away!). The EPA says that because the amount of mercury in the bulb is so small, there is more risk from broken glass should the bulb break. More significantly, 10 mg of mercury is released into the atmosphere by a coal-burning power plant to keep one incandescent light burning. This mercury is eventually deposited in the soils and water that produce our food.

### **Other Options**

CFLs can’t be used in fixtures with photo sensors, but now you can get motion-detecting lantern fixtures for your porch and garage lights. Like security lights, these only turn on when they’re needed, so you’re not burning the midnight oil (takes on a whole new meaning, doesn’t it?) when no-one’s there to trigger them. Solar landscape lighting is another earth-friendly trend.

### **Businesses and Institutions**

Electricity budgets can be substantially reduced, and protected from fuel price fluctuations, by tightening up buildings’ energy efficiency. Lighting is one relatively easy-to-upgrade method of achieving this. Here are a few money-savers:

- LED exit signs, outdoor signs, and freezer case lighting
- Skylights, or the more efficient solar tubes together with “smart” lighting, which switches on only when the natural lighting gets too low
- Motion detecting lights in conference rooms, break rooms and hallways

The UN’s Intergovernmental Panel on Climate Change will have updated sea level rise estimates in a report coming out in February. I imagine the leaders of coastal cities and islands are anxiously awaiting news about the future for which they must plan. That future will be determined in part by our actions in this country; actions which can begin with something so simple as changing a light bulb.