

## **GLOBAL WARMING: BAN INCANDESCENT LIGHT BULBS**

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After thirty years, I've gotten tired of hearing the easy answer to Peak Oil and Global Warming: "Replace your incandescent light bulbs with fluorescents."

It seems at first so obvious. Why not?

There can be a big difference between a supposed technological answer and the real-life world. I'll tell you some of the "fine-print" – both so you'll avoid problems, and because most of them aren't problems any more!

First, you don't get the energy savings the flag-wavers promise. Yes, incandescent bulbs only convert a small part of the electrical energy into light. The rest goes into the room as heat. But from there things get more complicated. If you live in Oregon, and heat your home with electricity, all that "wasted heat" from the light bulbs just reduces the amount of electricity you take out of the same pipe to heat your home. And you're not using air conditioning to get that heat out in the summer. So at least half the year, those savings don't exist. (But they DO for the other half of the year, and that's worth more than the price of admission.)

Second, CFLs (compact fluorescents) used to have a deserved bad reputation. They used be slow warming up. First one I put in on our stairway years ago would scare the daylights out of me as I'd flip the switch and start down the stair . . . and "no light"!). That's changed as the designs have gotten better. Instant light now, but only about half the light output for the first couple of minutes.

Third, early CFLs didn't work well. Light color used to be "cool white" like industrial fluorescent tubes, and always was jarring with other warmer colored incandescent lights in a room. You still have to check sometimes, but most now are "warm white". CFL ballast also used to buzz audibly, and there was an uncomfortable almost invisible flicker to the lights. Over time, I'd sneak a new model into the house when my wife wasn't looking, to see if she could tell I'd done it, to find out if the new model was OK. Now they all seem pretty good. But that legacy remains in people's minds.

You also have to pay attention to special applications with CFLs. There are dimmable models available, but you have to be sure you've gotten the right one. Some burn out quickly in enclosed fixtures, though their lower wattage reduces the overheating problem. Again, there now are CFLs that say right on the package that they're OK for enclosed fixtures. Get them if that's what you need. Now you CAN get CFLs for indoor and outdoor floodlight and spotlight applications. IKEA even sells CFL "candelabra" bulbs. Some specialty bulbs, like 50w spotlights, are now replaceable by LED lights at even greater energy savings. And CFLs are now the same size as incandescents, so they fit in lamps where they didn't use to.

If you read the fine print, many CFLs also don't produce the same light output as the incandescents they're supposed to replace, and their wattage comparison is often closer to 1/3 rather than 1/4<sup>th</sup>. There's variable performance from different

manufacturers, so things haven't shaken down to the simple, mindless act of picking up a yellow box in the store.

And one of the best alternatives to incandescent bulbs isn't a light bulb. It's that old-fashioned thing called a window. They don't work well at night, but if put in the right places, they can let in that strange stuff called sunshine, which works even when the power is out.

Even then, the problem isn't simple. I designed a bank a few years ago that was totally daylit with windows and skylights. Didn't need any lights except at night. But then I'd walk into the bank and find they had the lights on. Why???? Habit. People would go past and not see any lights on in the building and would think the bank wasn't open!

So why did I feel so good last year when I heard that Australia had legislated a ban on incandescent bulbs where alternatives are available? Well, first, here was a pretty conservative government taking serious and forceful action on global warming. And secondly, they cut through all those human roadblocks to change. The stuff's available now, most of the problems are resolved, and after the usual amount of grumbling, even Australians can adapt.

So can we. Australia was a leader. Oregon wasn't. But Canada has joined Australia in the bulb-ban. And Brazil has already replaced half the bulbs in the country with CFLs. If they can, so can we. Quickly. We don't have to wait 5 years to do so.

The difference between "You can replace your lightbulbs . . ." and a governmental entity requiring that more efficient bulbs be used is a four-fold increase in the number of lamps that get converted. It's the difference between a government passing the buck on a major issue vs. taking clear and decisive action. It's acknowledgement of the availability of clear, simple, and visible solutions and the need for decisive and prompt action. If we can't handle this one, we *are* in trouble.

[Preprint of article prepared for East Oregonian newspapers.]