Incandescent ban steamrolls past legislative efforts

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The Better Use of Light Bulbs Act [1] (BULB) has been defeated [2] in the House of Representatives. BULB would have amended the 2007 Energy Independence and Security Act, thereby staying the incandescent ban. But it was not to be. With no further challenges, the Edison Lightbulb faces mandatory retirement in January 2012.

Though not technically a “ban”, the 2007 Energy Independence and Security Act sets energy efficiency standards which disqualify most incandescent bulbs. The 100 W bulb is the first to go, meeting its untimely demise in 2012. By 2014, incandescents will be completely eliminated. The EU has similar legislation in place, concluding in 2012 with the 40/25 W bulb.

The first phase—100 W bulbs—triggered massive hoarding. Der Spiegel reported a huge increase in incandescent sales across Germany. For 100 W bulbs, sales rose by 80-150%. Clearly, the market has decided against CFL's (the Edison Bulb's likely successor, and a stopgap solution between incandescents and solid state lighting).

The future is solid state lighting (SSL). But SSL faces the same hurdle as hybrid cars—short term investment vs. long-term value. Some consumers will bite. Others will balk at paying $20-60 for LED home lighting replacements (even if they last decades). Early adopters will drive down costs, but until then, consumers are stuck with the CFL.

CFL's are four-times more efficient than incandescents (20% vs. 5%, respectively). Yet, in the court of public opinion, they haven't fared so well. Critics point to its unnatural, bluish light, time to achieve full brightness (3 minutes [3]), and dimming issues. An independent study found that 25% of CFL's no longer met their rated output after 40% of their rated service life. Certain CFL's emit a headache-inducing buzzing sound. One UK commentator noted that [4], "it seems strange suddenly to

force people to use a product about which so many consumers are unhappy."

Some feel that government regulation is necessary to facilitate adoption of more efficient technologies. Others prefer consumer choice to forced obsolescence. Energy Secretary Steven Chu has chosen option #3—deny everything. "The standards do NOT ban incandescent bulbs," Chu said [5]. "You'll still be able to buy energy-saving halogen incandescent bulbs that look exactly the same as the ones you're used to." **Nothing to see here. Move along**.

Yet in the bill's summary, it plainly states [6], "Thomas Edison's 1880's-era lightbulb will be replaced with new technologies." True, the bill doesn't explicitly ban incandescent bulbs as a product. But most incandescents cannot meet the bill's efficiency requirements. For all intents and purposes, it's a ban.

No matter how we parse it, the incandescent bulb is headed for early retirement. And The Department of Energy is indirectly responsible for our current predicament. The chief culprit is the Energy Policy Act of 1992, which strove to "improve energy efficiency." Following this directive, the DOE designed the 1998 Sub-CFL Program [7] to promote the compact fluorescent lamp.

In Phase 1 of the program, bids were solicited for lighting manufacturers to provide CFLs that met "minimum technical specifications." The criteria were weighed heavily in favor of size and price. Together, price and size constituted 80% of the scoring criteria, with product warranty and a ratio of cost/life a mere 20%. As a result, cheap CFLs flooded the market. These same CFLs will ascend at the behest of the incandescent ban.

Should we force the early obsolescence of legacy technologies? Or should the market decide? Let your voice be heard! Join the debate below.

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