## Irrational incandescence

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## People can't be bothered to make easy energy savings

SOME ways of cutting carbon are cheaper than others. So, at different carbon prices, different sorts of methods of abatement become worthwhile. Vattenfall, a Swedish power utility, has tried to quantify which ones would be worth undertaking at what price (see chart 3).



The result is a testament to economic irrationality. The measures below the horizontal line have a negative abatement cost—in other words, by carrying them out, people and companies could both cut emissions and save money. At a macroeconomic level they would boost, rather than reduce, economic growth.

Lighting, for instance, accounts for some 19% of the world's electricity use. A standard incandescent light bulb costs around  $\in 1$ , says Theo van Deursen, chief executive of Philips Lighting, and uses  $\in 15$ -worth of electricity a year. A low-energy one costs  $\in 5$ -6 and uses  $\in 3$ -worth. The payback on investing in a compact fluorescent bulb, therefore, is less than a year. Yet low-energy lighting makes up only 30% of Philips's sales. Mr van Deursen admits to being disappointed. Sales are rising faster in the developing world: there, people pay more attention to electricity bills than they do in the rich world.

Economists trying to explain this apparent irrationality suggest that the savings are too small and the effort involved in change too large. People find their electricity bills too boring to think about; within companies, those responsible for keeping bills down may not have the authority to spend the necessary capital. Another explanation is the agency problem: that the developer who would have to pay higher capital costs up front will not be forking out for the electricity bills. Besides, people buy houses not because they have good insulation but because they have pretty views.

Compared with pursuing greater energy efficiency, the abatement measures into which so much money is now being poured look rather expensive. Carbon capture and storage and wind and solar power, for instance, all have positive, and relatively high, abatement costs.

But the cheapest sources of abatement are difficult for policymakers to get at. Billions of different actors are involved. They cannot be targeted in the way that a few hundred factories can. What is more, a moderate carbon price is not likely to be effective, since people clearly do not care enough about cost.

One policy option is to decouple the utilities' revenues from the amount of electricity they sell. That gives them an incentive to increase the efficiency of power usage rather than to produce and sell extra power. California is already doing this, which is presumably why electricity prices there are among the highest in America, while consumption is relatively low.

Energy-efficiency standards, such as building regulations, are another option. Economists generally prefer to avoid rules that specify what companies can produce and how, because they require governments, rather than markets, to allocate resources, and markets tend to do a better job. But if, as in this case, a public as well as a private good is involved, and the market does not seem to be doing its job properly, there is an argument for governments giving it a nudge.

There are lots of energy-efficiency regulations in place already, and they are being tightened. Incandescent light bulbs are the top target at the moment. Both the European Union and Australia said earlier this year that they are planning to ban them. But the man in the vanguard of this green revolution is Fidel Castro, who started phasing them out two years ago.