

## THE YEAR IN IDEAS



### You are your own energy source

In the past ten years, the internet has put us in control of all sorts of new things. We can be music producers, film producers, bloggers on the international stage, with just a computer and a network. This is an incredible liberation, turning the old hierarchies upside down.

In the next ten years, something similar could happen to electricity. Ever since 1882, when Thomas Edison opened the first commercial power station in Manhattan, we have been building big, remote power stations, transmitting power to households through a national grid. Economies of scale meant that it made sense to centralise energy production.

But new technologies are making it possible for individuals to produce their own energy on a much smaller scale, without having to wait for big power companies to get round to it. Some American households are already producing more energy than they need, from renewable sources like the sun and the wind, and are selling surplus power to the very companies that they used to depend on.

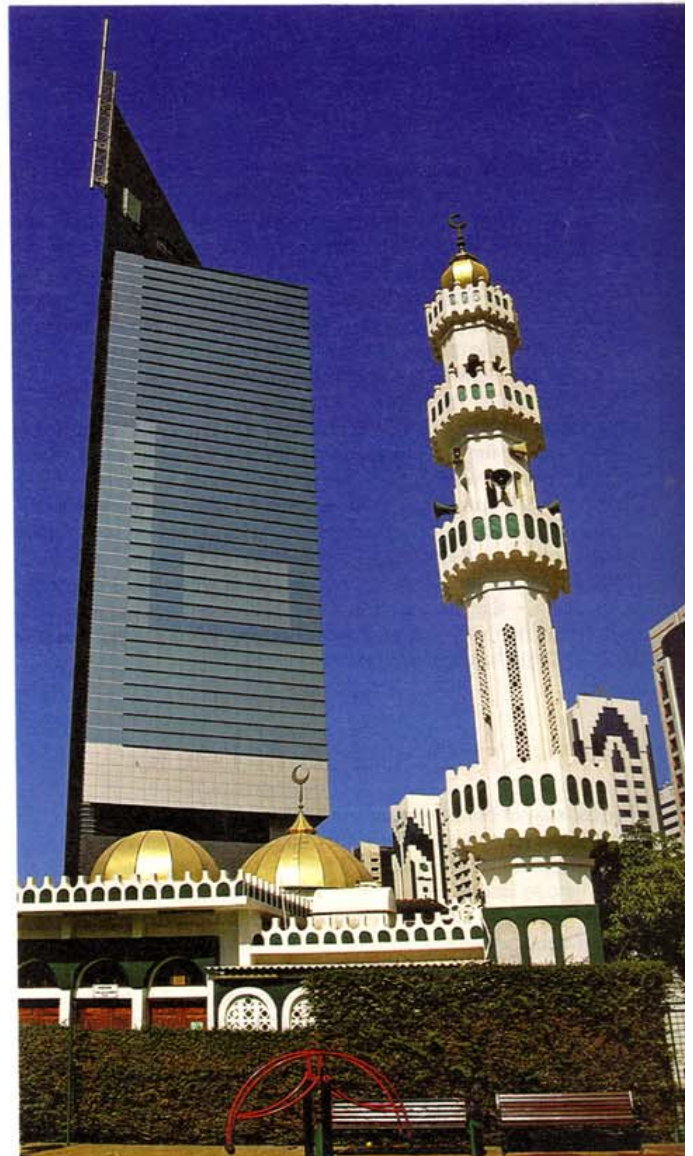
One small sign of this trend will soon be on the British high street. A few companies now sell backpacks and jackets made of pliable solar panels, which will recharge your iPod, mobile phone, maybe even your laptop, as you walk around. This small innovation will free many of us from the need to rush to the office to plug in to the mains – though it won't help much at night. (The Reactor backpack shown in our picture, above, from [www.thesolarcentre.co.uk](http://www.thesolarcentre.co.uk), costs £99.99 and is apparently made from recycled drinks bottles.)

Packing power on our backs may change the way we think about energy. But the real liberation will come when we start to install micro-generators in our homes, offices or streets. Combined heat and power systems, heat pumps and solar panels all offer ways to cut waste from our centralised energy system, which, according to the DTI (now BERR), loses roughly half its energy in generation and transmission over long distances. Our current system is also extremely vulnerable to blackouts. Decentralised systems are more like an "energy internet", re-routing energy supply swiftly if one network link fails.

The Netherlands now meets about a third of its electricity demands through decentralised energy. In Britain, the tipping point will come next year, when the Government changes the building regulations to make all new homes "zero-carbon" by 2016. This will only be possible if each development generates its own power.

Today most of us remain connected by an umbilical cord to the electricity grid, exposed to the vagaries of energy prices. The decentralised way of thinking would let us break free from that tyranny. It won't happen all at once. But next year the concept will become much more familiar. Making our own energy could prove almost as entertaining as watching YouTube. **CAMILLA CAVENDISH**

ALAMY, CORBIS, MAGNUM PHOTOS



### Koran-compliant finance

You're a Muslim, you're also a free-marketeer — heir to a medium-sized Abu Dhabi construction firm, maybe, or a travel agent for the Kuwaiti football team, or a pharmacist on the Uxbridge Road. You want to expand, but Sharia law forbids the payment of interest, which is something banks might expect in return for a loan. (It also bans investment in anything that sells booze, guns, porn or pork.) What do you do?

You relax. Help is at hand. As the rest of the financial services industry writes off duff loans and furls once-billowing bonus expectations, Islamic banks are booming. They offer loans and bonds and even Sharia-compliant hedge funds, none of which pays or charges interest. They pay and charge agreed percentages of profit or loss instead, and the distinction, which may seem trivial, has been enough to attract tens of billions of petrodollars that would otherwise have been invested in impure Western institutions for want of an alternative.

The global volume of certified Koran-friendly assets has grown by 30 per cent to more than £250 billion in the past year alone. In the past five years, the international Islamic bond business has expanded more than 80-fold. And there's no crash in sight: an estimated £750 billion is still sloshing around the Middle East in search of a good home. Post-