



Environment

# Fridge gadget that could slash greenhouse emissions

David Adam, environment correspondent  
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It is made of wax, is barely three inches across and comes in any colour you like, as long as it's black. And it could save more greenhouse gas emissions than taxes on gas guzzling cars, low energy light bulbs and wind turbines on houses combined. It is the e-cube, and it is coming soon to a fridge near you.

Invented by British engineers, the gadget significantly reduces the amount of energy used by fridges and freezers, which are estimated to consume about a fifth of all domestic electricity in the UK. If one was fitted to each of the 87 million refrigeration units in Britain, carbon dioxide emissions would fall by more than 2 million tonnes a year.

The patented cube mimics food and is designed to fit around a fridge's temperature sensor, which usually measures the temperature of the circulating air.

Because air heats up much more quickly than yoghurt, milk or whatever else is stored inside, this makes the fridge work harder than necessary. With the cube fitted, the fridge responds only to the temperature of the food, which means it clicks on and off less often as the door is open and closed.

Trials are under way with supermarkets, breweries and hotels. One of the largest, the Riverbank Park Plaza hotel in London, fitted the device to each of the hotel's 140 major fridges and freezers. David Bell, chief engineer, says energy use decreased by about 30% on average - enough to slash the hotel's annual electricity bill by £17,000. The Park Plaza group plans to fit them throughout its UK hotels, and to recommend them overseas.

An independent report by Campden and Chorleywood Food Research Association Group said: "The devices do indeed save energy. The slightly increased variation in temperatures in dummy loads would indicate that food safety would not be compromised."

Spencer Freedman of Ecube Distribution said about 10,000 of the devices have now been sold, and tests are under way at the Dorchester hotel in London, as well as Asda, GreeneKing IPA, Iceland, Netto and Starbucks. Guy Lamstaes, co-inventor of the device, said heightened concern about climate change had made companies more interested in saving energy. "We tried to market these for years but nobody was interested."

Mr Freedman said the devices would have the biggest impact in the large freezers and open chill cabinets used in the catering and supermarket industries. They do reduce the energy consumption of domestic fridges, but the saving is not so great because the door is not opened very often.

The company is talking to supermarket chains about fitting them to the refrigerated lorries used to ferry chilled and frozen foods.

The company is also about to report the results of trials at a central London pub, which had them fitted to 34 fridges.

Ecube Distribution claims the results will show the brewery could save around £3.5m and 17,000 tonnes of carbon dioxide each year if it used them nationwide.

Energy efficiency is one of the key pillars of a government pledge to save 60% of UK carbon emissions by 2050, which will be made legally binding by the climate change bill announced this week.



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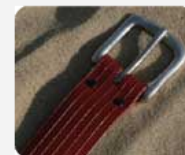


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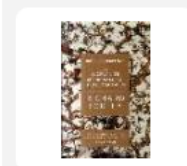


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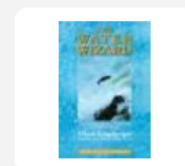


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