

Passing cars to generate energy for new UK supermarket

June 17 2009, by Lisa Zyga



"Kinetic Road Plates" are expected to generate 30 kW per hour, enough to power the store's checkouts. Credit: J Sainsbury plc.

A new grocery store in the UK opening today will generate energy every time a customer drives into the parking lot. Sainsbury's, located in Gloucester, is the first European store to feature "Kinetic Road Plates" - thin, flexible plates that capture energy as cars drive over them.

The system is expected to produce about 30 kW of energy per hour, which is more than enough energy to power the store's checkouts. As designer Peter Hughes of Highway Energy Systems explains, as a vehicle passes over the plates, the plates are pushed down by the weight of the vehicle. The pushed plates create rocking motions under the road's surface that turn generators, which is redirected back to the store. Drivers feel no disturbance when driving over the rounded-edge plates,

and the system does not affect vehicles' [fuel efficiency](#).

"This is revolutionary, not only are we the first to use such cutting-edge technology with our shoppers, but customers can now play a very active role in helping to make their local shop greener, without extra effort or cost," said Alison Austin, Sainsbury's environment manager. "We want to continue offering great value but we also want to make the weekly shop sustainable. Using amazing technology like this helps us reduce our use of carbon and makes Sainsbury's a leading energy-efficient business."

The kinetic road plates are one of many energy-saving measures at the new Sainsbury's store. Other environmental features include harvesting rainwater to flush toilets, [solar panels](#) to heat up to 100% of the store's hot water during the summer, floor-to-ceiling windows and sun pipes in the roof to maximize natural light, automatic dimmers for electric lights, and retrieving cold air from refrigerators to keep the checkout area cool.

More information: www.j.sainsbury.co.uk

Citation: Passing cars to generate energy for new UK supermarket (2009, June 17) retrieved 24 April 2024 from <https://phys.org/news/2009-06-cars-energy-uk-supermarket.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--