

Greenwash, or not ...?



Engineering meets tech...

SMART ROADS

With rising fuel prices, congestion and poor road safety, the tech and civil engineering industry are thinking of innovative ways to make travel safer and improve road user costs.

Imagine being able to provide clean renewable energy for homes and businesses, potentially charge an electric car while you drive (still under development), and provide LED road markings that are visible 24/7.

Enter Solar Roadways, Solar Roadways® (SR) is a modular system of specially engineered solar panels that can be walked and driven upon. These panels contain LED lights to create lines and signage without paint, and heating elements to prevent snow and ice accumulation.



Figure 1: Solar Roadways digital concept model (image from techrepublic.com)

With this innovation, other applications come to mind such as:

- Reallocation of lanes based on traffic demand during peak times. This could be ideal during

peak times where one direction of travel is congested in the morning due to work commutes and the opposite direction gets congested in the afternoon when road users are commuting back home.

- 3-D road markings to warn us of hazards on the road. Currently 3-D road markings are being used in some parts of the world to vividly communicate to road users of obstacles ahead.



Figure 2: Painted 3d road markings (image from asia-manufacturer.com)

The use of Solar Roadways is still at research and development stage with a few small scale projects installed in driveways in the United States. They are also working with Google on perfecting driverless cars where the roads could potentially guide the car.

The debate is still on regarding its viability. Feel free to go online and get clued up.

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