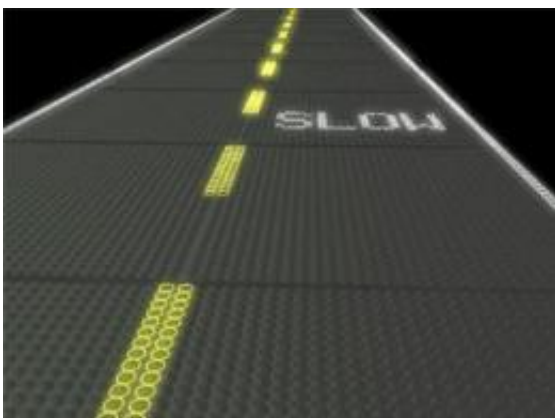


Solar Roadways Awarded DOT Contract to Pave Roads with Solar Cells

September 7 2009, by Lisa Zyga



In addition to generating power, the Solar Road Panels contain embedded LED lights that "paint" the road lines from beneath. Image credit: Solar Roadways.

(PhysOrg.com) -- In a first step toward turning highways into energy-generating solar panels, the Sagle, Idaho-based startup Solar Roadways has recently received a \$100,000 grant from the US Department of Transportation (DOT). The company will use the money to build a prototype of its Solar Road Panel, made from solar cells and glass, that is meant to replace petroleum-based asphalt on roads and in parking lots.

The 12- x 12-foot panels, which each cost \$6,900, are designed to be embedded into roads. When shined upon, each panel generates an estimated 7.6 kilowatt hours of power each day. If this electricity could be pumped into the grid, the company predicts that a four-lane, one-mile

stretch of road with panels could generate enough power for 500 homes. Although it would be expensive, covering the entire US interstate highway system with the panels could theoretically fulfill the country's total energy needs. The company estimates that this would take 5 billion panels, but could "produce three times more power than we've ever used as a nation - almost enough to power the entire world."

The Solar Road Panels also contain embedded LED lights that "paint" the road lines from beneath to provide safer nighttime driving. The LEDs could also be programmed to alert drivers of detours or road construction ahead, and can even sense wildlife on the road and warn drivers to slow down. The roads could also contain embedded heating elements in the surface to prevent snow and ice from building up on the road. Further, in the future, fully electric vehicles could recharge along the roadway and in parking lots, making electric cars practical for long trips.

"This feature packed system will become an intelligent highway that will double as a secure, intelligent, decentralized, self-healing [power grid](#) which will enable a gradual weaning from [fossil fuels](#)," Solar Roadways stated in a recent press release.

More information: www.solarroadways.com

via: [Inhabitat](#)

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