

## Idaho Transportation Department Pilots Smart Pavement Markers

Theo Douglas | March 1, 2018



The Idaho Transportation Department (ITD), which last year deployed [nonstop weigh stations](#) for truckers and realized construction efficiencies by mandating contractors [use GPS](#), is piloting new wireless technology aimed at shedding some light on the state's darkest highways.

[Last month](#), state employees installed the first 100 of an eventual 700 solar-powered pavement markers. The patented markers, which measure four by six inches, are three-quarters of an inch tall and meet federal Manual on Uniform Traffic Control Devices regulations. They're the first in four planned series of smart lane markers from Evolutionary Markings Inc. (EMI), a Boise startup that will celebrate its fourth year in September.

Each of these \$100 markers, the first series, comes with a \$90 price tag, but Idaho officials have been sufficiently intrigued by their promise to make them available to all six transportation districts this spring.

The first installation of markers took less than two hours and required only construction epoxy by way of materials, making it something of a cost savings according to ITD Maintenance Foreman David Petersdorf, whose district covers the southeast part of the state.

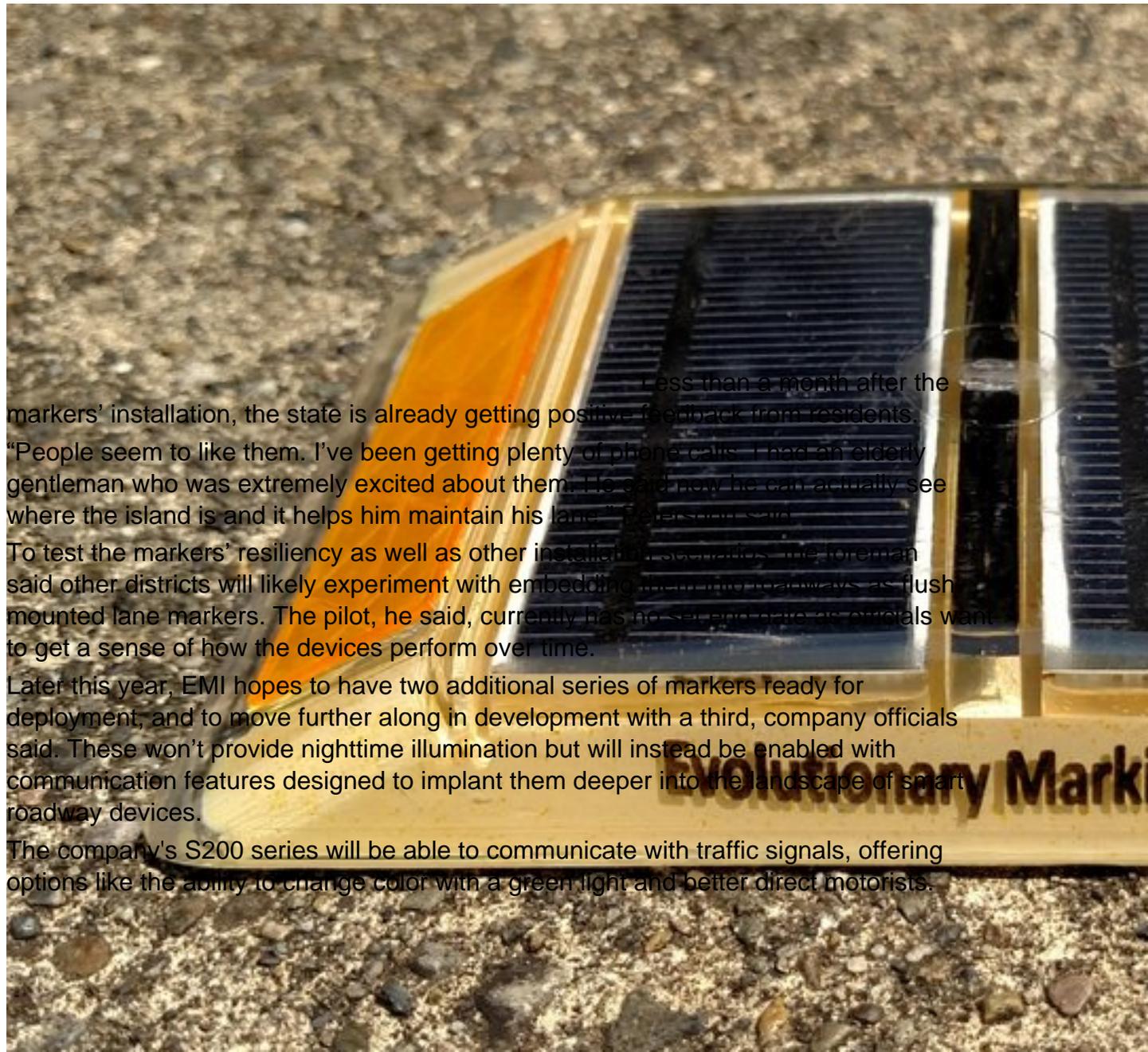
Officials chose their location, a traffic island on a roughly two-mile stretch of US-30/ Garrett Way, because its city lighting had lapsed roughly eight years earlier, leaving that

area especially dark at night. Like smart street lights from other companies, the self-contained S100 LED devices turn on automatically as ambient sunlight dims, including on overcast days. The installation is [visible](#) in a YouTube video ITD uploaded last month.

EMI's founding CEO Alan O. King said that's exactly the type of installation for which the S100 was designed.

"Where ours really work well is in dark locations, where there are sharp curves, or situations where it's not easy to see where the roadway is. That's where we expect that our primary use is going to be," King said. (An earlier installation by Washington state near Olympia took place last year.)

The company developed its wireless technology with assistance from the University of Idaho's National Institute for Advanced Transportation Technology, a collaboration enabled through a state Idaho Global Entrepreneurial Mission funding grant, a series that capitalizes collaborations between university researchers and business.



Less than a month after the markers' installation, the state is already getting positive feedback from residents.

"People seem to like them. I've been getting plenty of phone calls. I had an elderly gentleman who was extremely excited about them. He said now he can actually see where the island is and it helps him maintain his lane," Peterson said.

To test the markers' resiliency as well as other installation scenarios, the foreman said other districts will likely experiment with embedding them into roadways as flush mounted lane markers. The pilot, he said, currently has no set end date as officials want to get a sense of how the devices perform over time.

Later this year, EMI hopes to have two additional series of markers ready for deployment, and to move further along in development with a third, company officials said. These won't provide nighttime illumination but will instead be enabled with communication features designed to implant them deeper into the landscape of smart roadway devices.

The company's S200 series will be able to communicate with traffic signals, offering options like the ability to change color with a green light and better direct motorists.

Its S300 series will work in conjunction with a detection unit from another company to change color when a wrong-way vehicle is identified and alert the driver.

The S400 series will also work with a detection unit from another company, EMI President Doug Baker said, but will focus on warning drivers whose excessive highway speeds might put them at risk of collision in largely rural states like Idaho, where blind corners or T-intersections may be hard to spot.

Intelligent products increasingly make “a lot of sense,” Baker said, particularly as transportation agencies take up mandates toward zero highway deaths.

“We feel like as the word spreads that this product is available, there will be more and more interest in it,” Baker said.

*Editor's note: The location of Evolutionary Markings Inc. was corrected in this story.*

<http://www.govtech.com/transportation/Idaho-Transportation-Department-Pilots-Smart-Pavement-Markers.html>