How to fund roads and ensure electric vehicles pay their share

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Since electric vehicles use no gasoline, their drivers pay no gasoline tax. And as more people drive EVs, gas-tax revenue for road repairs is dwindling. So how can California and the rest of the country avoid road-funding shortfalls and ensure that EV drivers pay their share of needed repairs?

A research report submitted to the California Legislature this week by the University of California, Davis’ Institute of Transportation Studies proposes an innovative solution: Switch EVs to a mileage fee while continuing to have gasoline-powered cars pay gasoline taxes.

Gas tax or mileage fee?

Many states, including California, have opted for the easy way out—charging an extra registration fee for electric vehicles. But that is not a sustainable or effective solution, according to report author Alan Jenn, a UC Davis research scientist with the Plug-In Hybrid & Electric Vehicle Research Center.

"The California zero-emissions vehicle registration fee doesn't support the long-run funding of transportation infrastructure, nor is it equitable for drivers of electric and hydrogen vehicles," said Jenn.

Others argue that the gas tax must be replaced by a mileage-based fee as soon as possible to avert increasing shortfalls in road funding. But switching from the gas tax to a mileage fee would be technically and administratively difficult.

"California now has the opportunity to support alternative funding mechanisms," Jenn said. "Our study finds that a per-mile road charge, designed specifically for zero-emission vehicles, is a relatively low-cost and sustainable solution to funding our roads."

The proposed transition is expected to cost less, be easier to administer and provide a smooth transition away from gas taxes. The report concluded that a mileage-based user charge would be the easiest and least costly way of addressing the long-term decline of gas taxes.

The report, "Assessing Alternatives to California Registration Fee," was requested by the California Legislature.

Provided by UC Davis