

# The Future of Transportation Funding

Why do we need a new way to fund transportation?

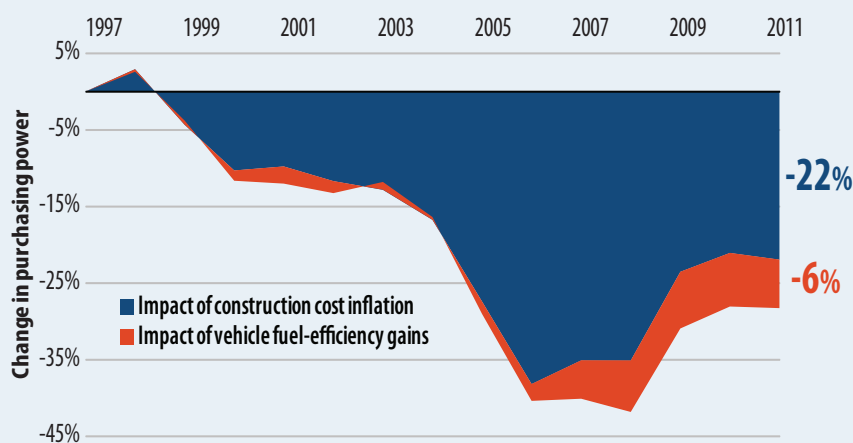
## Impacts to gas tax revenue

The nation has a funding gap. With the emergence of electric and fuel-efficient vehicles, plus revenue erosion due to inflation, the gas tax no longer produces enough revenue to support the demand for transportation maintenance and improvement projects.

In the U.S., drivers pay two main forms of gas tax that are dedicated to maintaining and improving public roadways. The federal gas tax—a flat tax that does not increase with inflation—was set at 18.4 cents per gallon in 1993 and remains at that rate today. State rates vary.

With the emergence of electric and fuel-efficient vehicles alongside revenue erosion due to inflation, the gas tax is no longer producing enough revenue to support the demand for transportation maintenance and improvement projects.

## The funding gap



Source: ITEP analysis of data from the Federal Highway Administration (FHWA)

**Gas tax purchasing power dropped by 28% between 1997 and 2011**

*Decline is due to better fuel efficiency and increased construction cost*

**? Visit [rucamerica.org](http://rucamerica.org) for answers to frequently asked questions**

## A potential solution

A mileage-based Road Usage Charge could provide a more sustainable revenue source to fund and maintain our highway infrastructure.

## Addressing the funding gap

The nation faces a \$2 trillion gap in transportation funding over the next ten years<sup>1</sup>. This impacts state funding, and many state departments of transportation are evaluating alternative, more sustainable funding methods like Road Usage Charge (RUC) and tolling to make up the difference.

## How to address a funding gap most people don't know exists

Studies show that most people don't understand how they contribute to funding roads, bridges, and tunnels. In a survey conducted in Washington State<sup>2</sup>, about half of the respondents claim transportation funding comes from "taxes" like a sales tax or a road tax. Others know funding comes from the gas tax, but they are unsure about how much they pay at the state and federal level, or that they even pay two or more separate gas taxes at the pump. The gas tax is included in the price of gas and generally not shown on the receipt, so it is somewhat of a hidden tax. Furthermore, most people don't realize that fuel efficiency improvements and inflation are eroding revenues.

1. 2017 Infrastructure Report Card, American Society of Civil Engineers.

2. Baseline Public Attitude Assessment: Focus Groups Report (WSTC Steering Committee Meeting, July 27, 2017).

## How would a RUC system work?

A RUC funds transportation based on a user-pays system, charging drivers by the mile instead of by the gallon. Ultimately, if legislators adopt a RUC, it could replace the state gas tax. The RUC America Pilot Project is studying how one state's RUC system can accommodate other states' requirements, processes, systems, rates, and laws.

In the pilot, third party vendors will collect the miles driven and manage the data and payments. The vendor will offer pilot participants several choices for reporting their miles, including a mileage reporting device with GPS, mileage reporting device without GPS, or smartphone app. Once a month, the pilot participants will receive an invoice indicating miles driven (in their home state and between California and Oregon) and the fee charged. All RUC funds collected (beyond operating fees) are deposited to the state's transportation fund in the same way gas tax revenue is collected today.



## CASE STUDY

### OReGO analyzes driver impact

Today, drivers pay state and federal gas taxes, but increasing fuel efficiency and construction costs are creating a funding gap. A RUC could potentially make up that gap by having drivers pay by the mile instead of by the gallon.

How would drivers fare with a RUC versus the gas tax? RUC West has created an online calculator for drivers to compare for themselves. In Oregon, drivers can access the calculator on [myorego.org](http://myorego.org) to compare their current monthly gas tax cost to OReGO. Drivers enter the estimated number of miles they drive along with their vehicle's mpg. The calculator then tells the driver how much they are spending in state tax each month compared to how much they would spend in the OReGO program.

### RUC America calculator allows people to compare for themselves

OReGO charges 1.5 cents per mile driven, credits 30 cents per gallon consumed for state fuels tax paid, and calculates the net balance due. Participants then remit payment or receive a refund.

Curious about your potential OReGO payment? Use our quick calculator to compare your current monthly fuel tax cost to using OReGO.

#### Mileage Information

How many Oregon miles do you drive per month?



Enter Miles

What is the average MPG of your vehicle?



Enter MPG

CALCULATE



$100 \text{ mi.} \div 15 \text{ mpg} \times 34\text{¢/gal}$   
**\$2.27 (gas tax)**  
 $1.5\text{¢} \times 100 \text{ miles}$   
**\$1.50 (RUC)**



$100 \text{ mi.} \div 35 \text{ mpg} \times 34\text{¢/gal}$   
**\$0.97 (gas tax)**  
 $1.5\text{¢} \times 100 \text{ miles}$   
**\$1.50 (RUC)**



$100 \text{ mi.} \div 55 \text{ mpg} \times 34\text{¢/gal}$   
**\$0.62 (gas tax)**  
 $1.5\text{¢} \times 100 \text{ miles}$   
**\$1.50 (RUC)**



No fuel used, no tax paid  
**\$0.00 (gas tax)**  
 $1.5\text{¢} \times 100 \text{ miles}$   
**\$1.50 (RUC)**

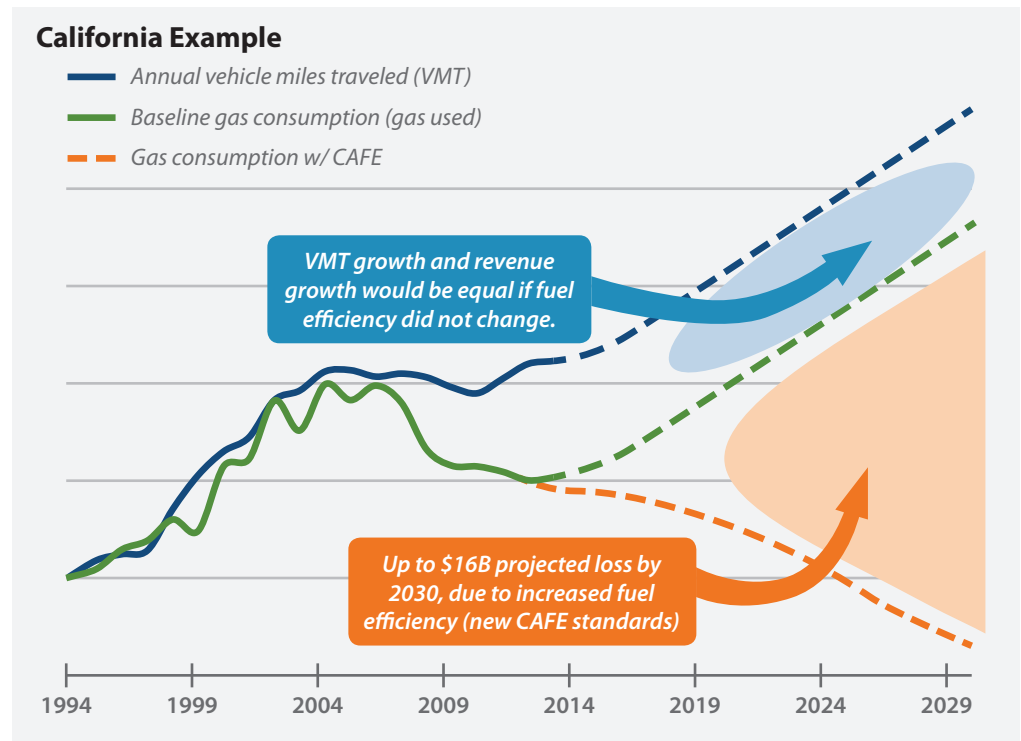
### Study Sources

The OReGO Program Final Report – Oregon's Road Usage Charge (ODOT, 2017).

## A closer look: Why is the gas tax providing less funding?

Gas taxes are based on a 20th century theory that gas purchases equal road use, with the assumption that most vehicles have a similar fuel economy. Current trends suggest that more people are driving—and will continue to purchase and drive—fuel-efficient vehicles. That leads to less fuel consumption and less gas tax revenue to fund transportation projects, even as people are using the roads more (more miles traveled). The graphic at right shows how revenue has been lost in California due to increased fuel economy, even as VMT has grown.<sup>3</sup>

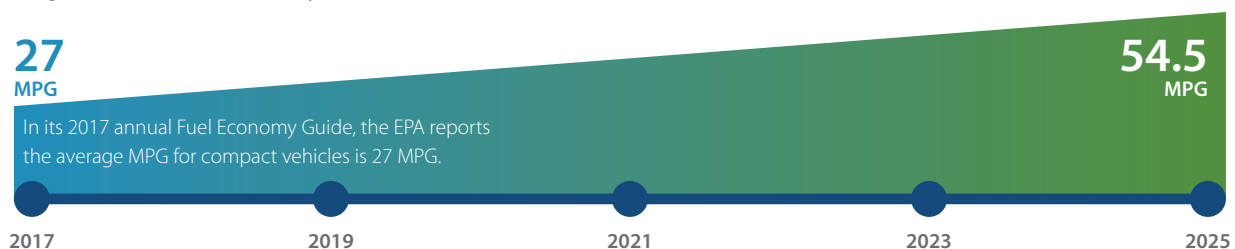
***The shortfall between actual roadway needs and funding availability is already in the billions of dollars annually***



The chart above illustrates VMT growth forecast in tandem with decreased gas tax revenues, using California as an example.

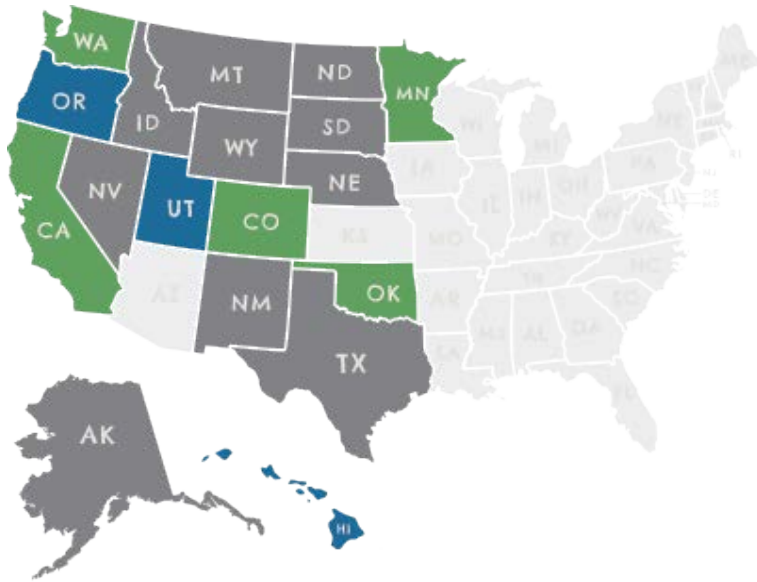
### With a gas tax, fuel economy = funding gap

The Environmental Protection Agency (EPA) and the National Highway Traffic Safety Administration (NHTSA) have both issued standards that will continue to improve fuel efficiency, which is likely to further erode fuel tax revenues. NHTSA developed Corporate Average Fuel Economy (CAFE) standards to improve fuel economy. EPA established national greenhouse gas (GHG) emissions standards under the Clean Air Act. If these standards are achieved exclusively through fuel economy improvements, new vehicles must get 54.5 miles per gallon by 2025. As of 2017, the EPA is reporting that automakers are on track to meet these ambitious government standards by 2025.<sup>4</sup>



3. "Exploring a Road Usage Charge as an Alternative to the Gasoline Tax" (California State Transportation Agency, or CalSTA) RCPP Final Report (Appendix-4 CTIP Workgroup Whitepaper).

4. Regulations for Greenhouse Gas Emissions from Passenger Cars and Trucks," U.S. Environmental Protection Agency (Undated report).



## RUC America priorities

American states are working together to study the viability of per-mile charging.

RUC America allows state departments of transportation to pool resources to study outcomes and share best practices. RUC America has already funded 24 projects related to the feasibility and evaluation of road usage charging, with more on the way.

## What is road usage charging?

Road usage charging (RUC) is a pay-by-the-mile concept where drivers pay for miles driven instead of gallons of fuel consumed. For nearly two decades, gas tax revenues have declined significantly due to increased fuel efficiency (including electric and hybrid vehicles).

In addition the decreased purchasing power of tax dollars for construction materials has resulted in many states cannot keep pace with the costs of operating, maintaining, and improving their vital transportation system

## RUC America

RUC America brings together leaders from state transportation organizations to share best practices and research RUC. RUC America is the foremost authority on road usage charging in the United States, bringing together leaders from 18 state transportation organizations to share resources and explore innovative funding solutions for preserving the future of our transportation network. RUC America member states are organized into three tiers based on their current level of involvement in advancing RUC in their jurisdiction:

## Our Members

**Tier 1:** Actively promoting road usage charging as an equitable road-funding solution (implementing a program)

- ❖ Hawaii
- ❖ Oregon
- ❖ Utah

**Tier 2:** Conducting Research Pilot Projects for a RUC

- ❖ California
- ❖ Colorado
- ❖ Oklahoma
- ❖ Minnesota
- ❖ Washington

**Tier 3:** Monitoring transportation trends (evaluating the road usage charge environment)

- ❖ Alaska
- ❖ Idaho
- ❖ Montana
- ❖ Nebraska
- ❖ Nevada
- ❖ New Mexico
- ❖ North Dakota
- ❖ South Dakota
- ❖ Texas
- ❖ Wyoming

## Interested in learning more?

RUC America welcomes state members to stay informed about RUC trends. A membership in RUC America connects your organization with the most current tools, resources and information on road usage charging. Whether watching the concept unfold or considering implementation of a state program, RUC America is the go-to source for all things RUC.