



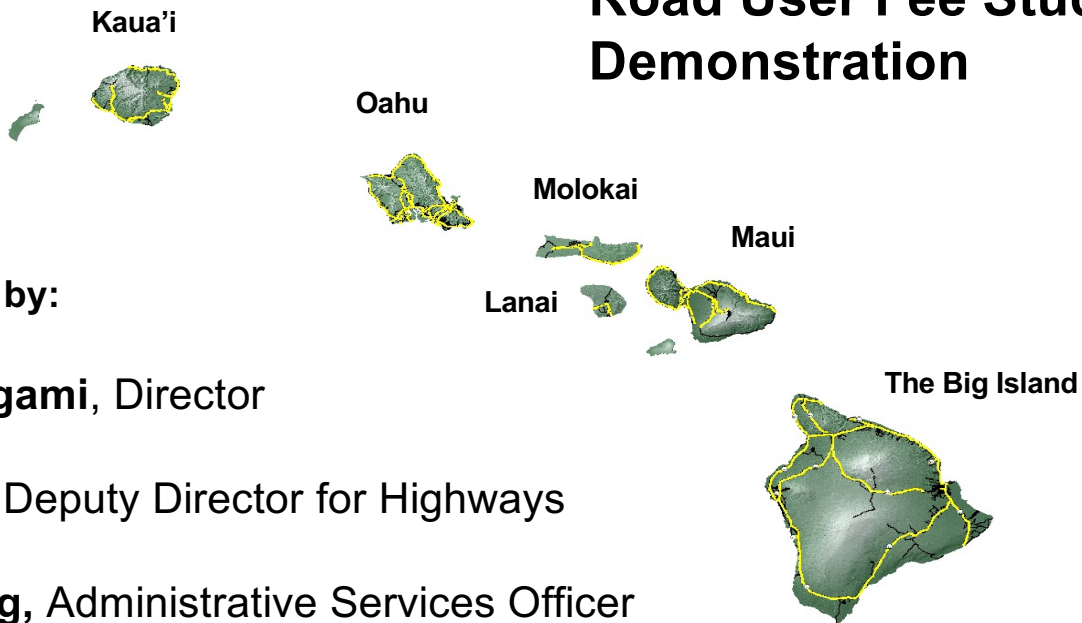
State of Hawaii



Department of Transportation  
Highways Division

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## Road User Fee Study & Demonstration



Presentation by:

**Ford Fuchigami**, Director

**Ed Sniffen**, Deputy Director for Highways

**Gerald Dang**, Administrative Services Officer

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## Topics for Discussion

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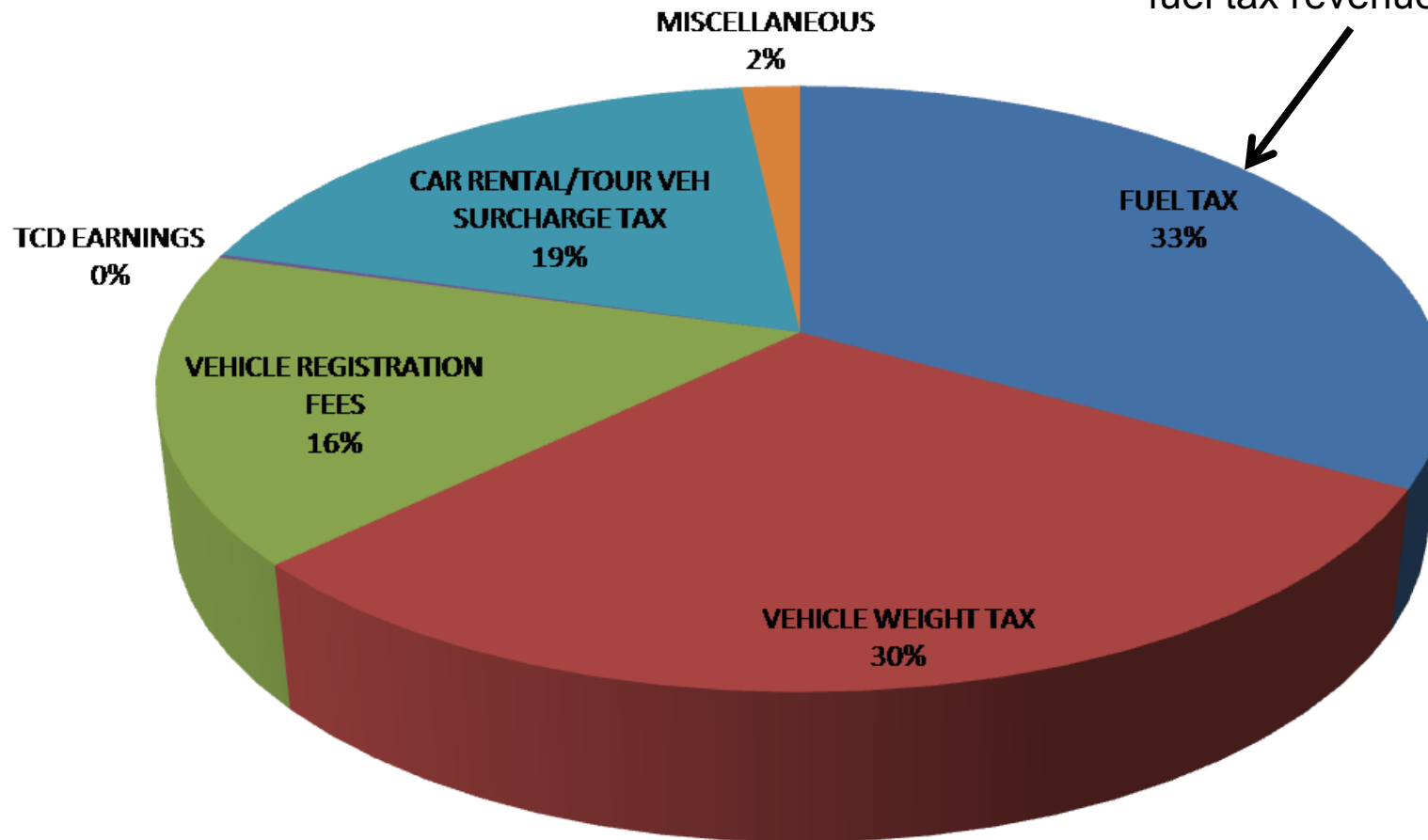
- Current Transportation Funding Situation
- Impacts of Energy Policy on Future Transportation Funding
- Road User Fee as a Potential Solution
- HDOT's Response: Joint Research with *RUC West States*
- HDOT's Response: Feasibility Study
- HDOT's Response: Grant Proposal for Demonstration Project



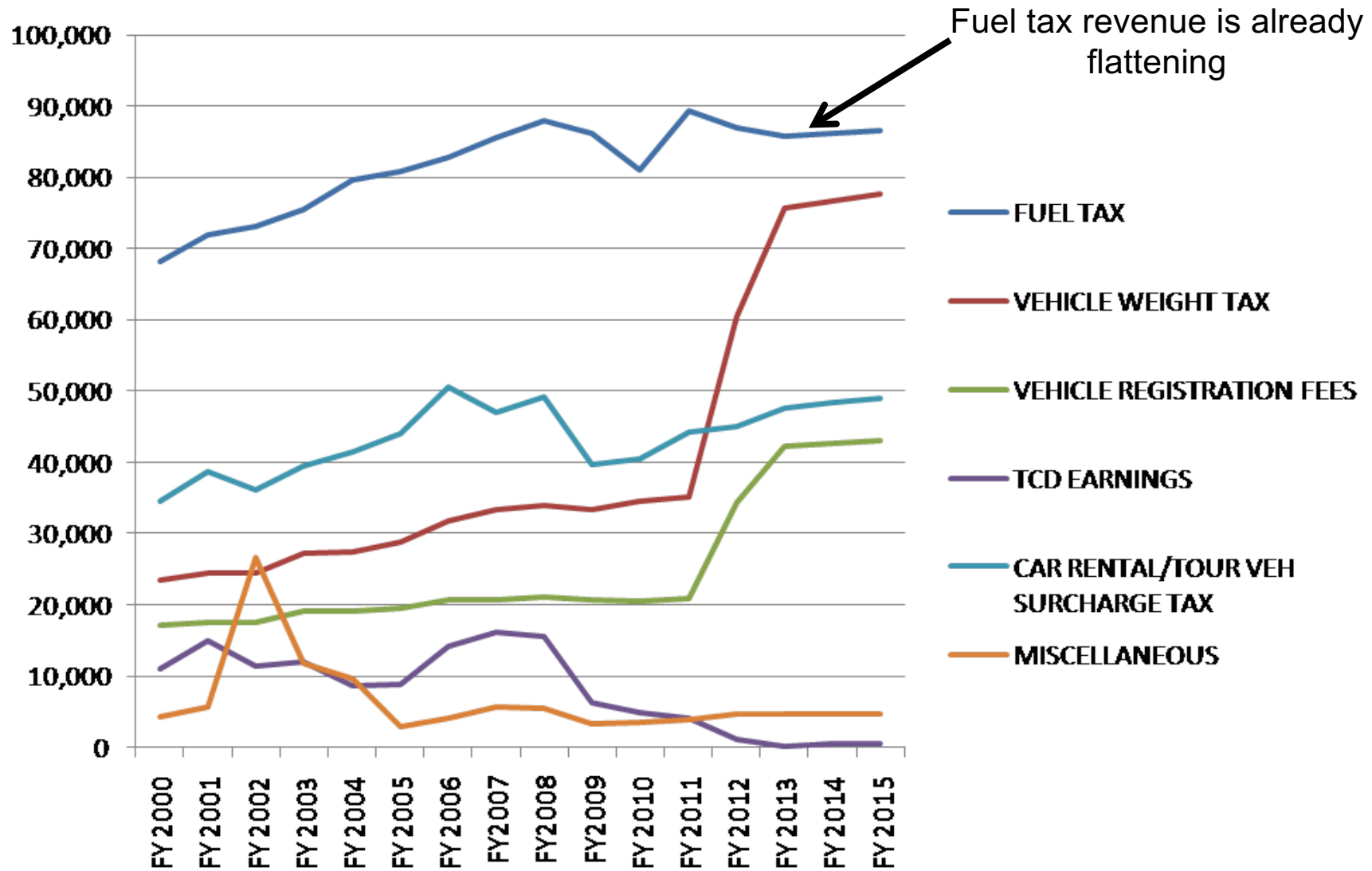
**The Situation:** The largest share of State Highway Fund revenue comes from fuel taxes. Counties also depend on fuel taxes for their roadway funding.

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State Highway Fund: largest share is fuel tax revenue (33%)



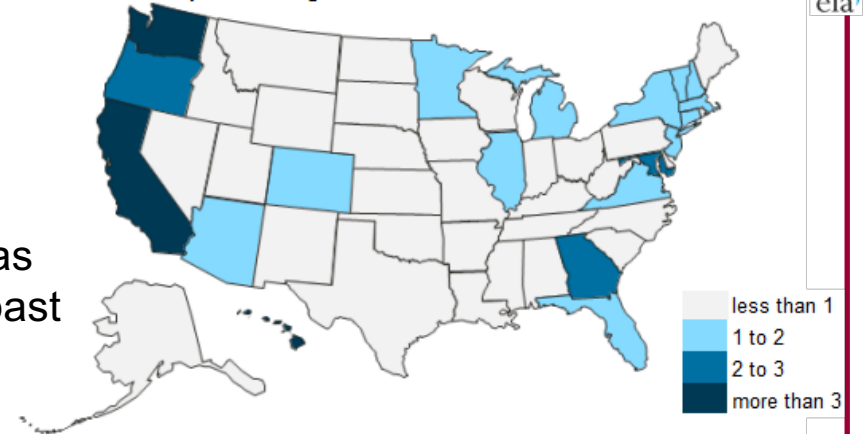
## The Situation: Recent fuel tax revenue trends are flatter than historical trends



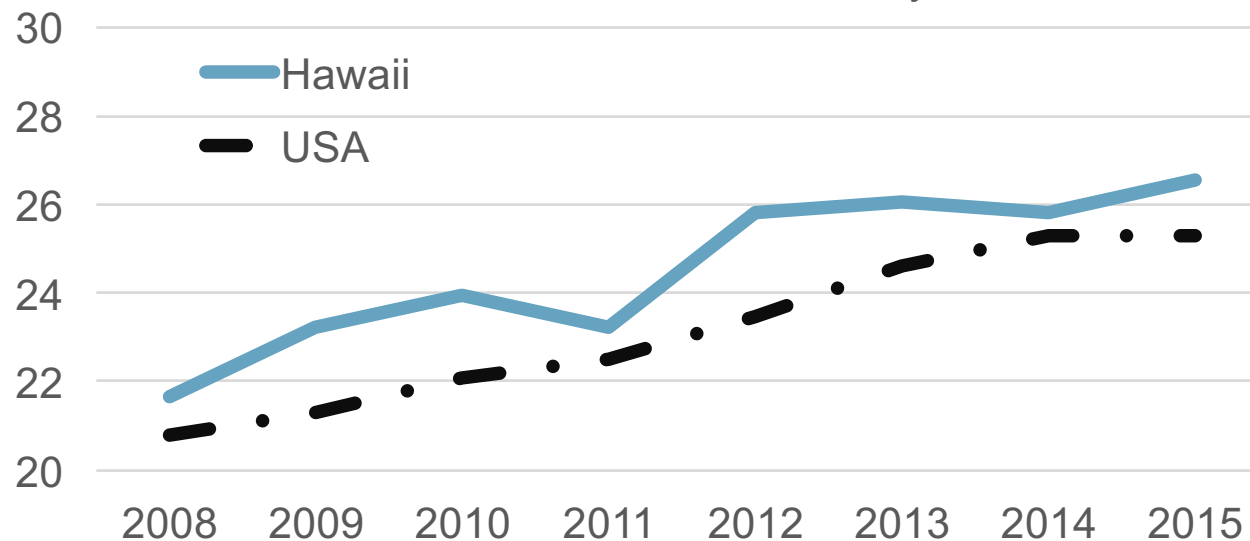
## Energy Policy: Hawaii is leading the way to a clean future

- Hawaii is the first state to adopt a 100% clean energy goal by 2045
- Hawaii is in the top 3 states for rate of electric vehicle adoption
- Fuel economy of all new cars sold in Hawaii has outpaced the national average in each of the past 8 years

Electric vehicles per 1,000 registered vehicles



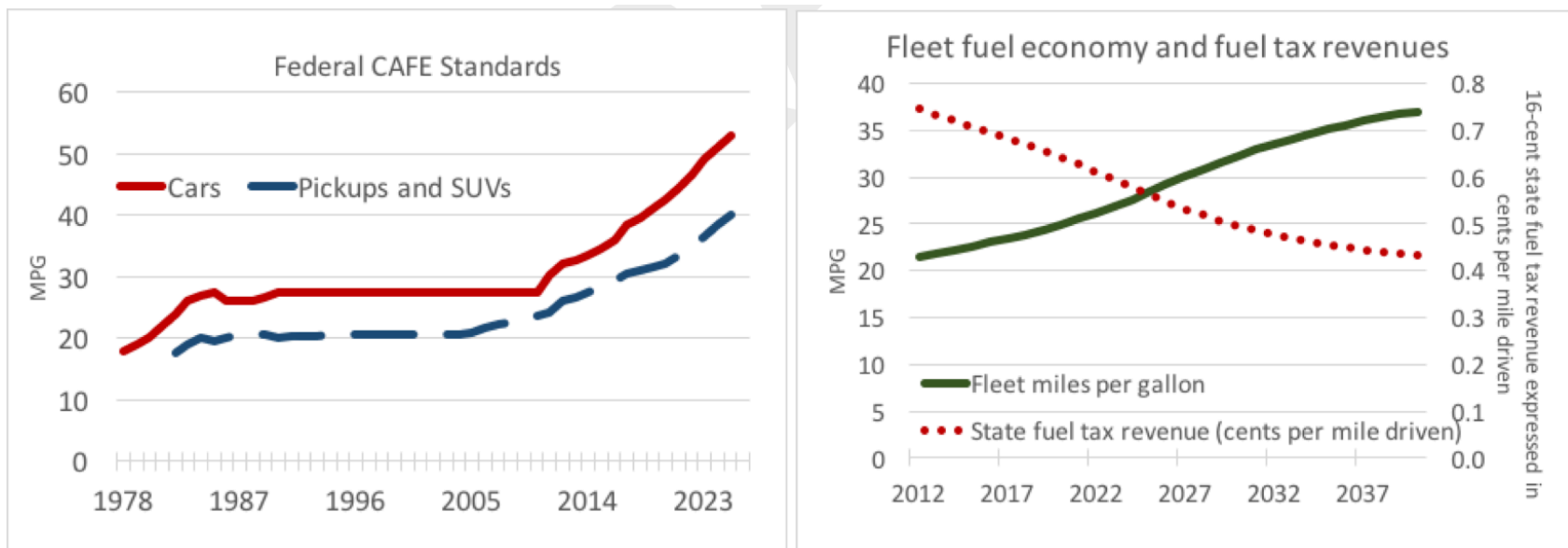
Combined MPG of New Cars Sold by Model Year



## The Problem: Federal fuel economy standards are eroding Hawaii's fuel tax revenue per mile driven

Passenger cars are using less gasoline now, and this trend will accelerate in the next decade. This is **good news** for the **environment** and our **energy security**...

...but **bad news** for funding roadway maintenance and improvements in Hawaii.



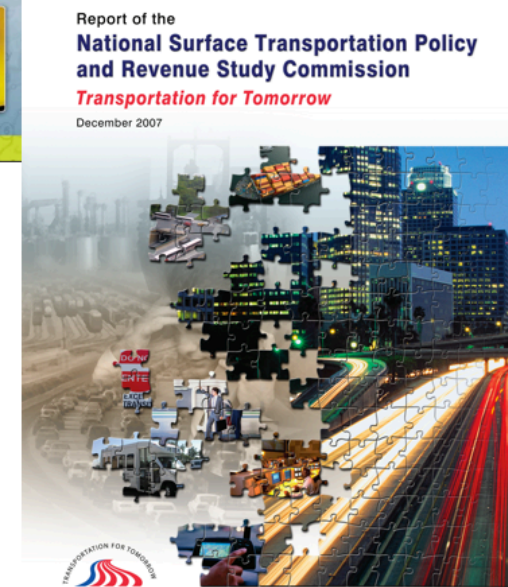
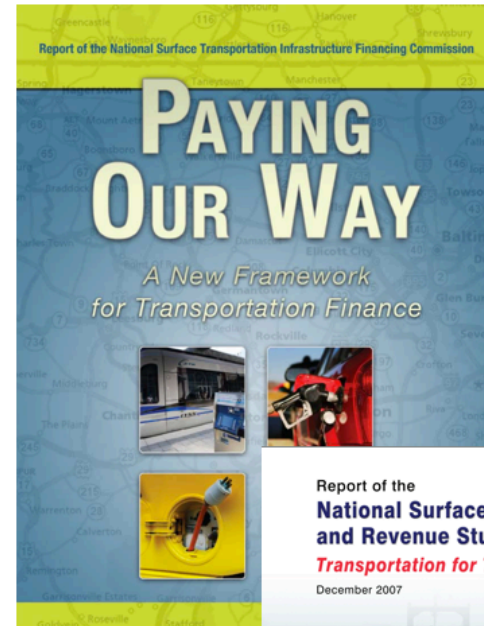
As fuel economy improves (solid green line), motorists will contribute less in fuel tax per mile driven (dotted red line).



## National Response: Federal Commissions on Sustainable Funding

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- National Surface Transportation Policy and Revenue Study Commission, 2007: *A funding and finance framework that relies on more direct forms of “user pay” charges such as a VMT fee system is the consensus choice for the future. The Commission’s extensive investigation into alternative funding approaches has proved to its satisfaction that a VMT-based system is the best available option for the next-generation federal revenue system.*
- National Surface Transportation Infrastructure Financing Commission, 2009: *The Commission recommends that the next surface transportation authorization act require a major national study to develop the specific mechanisms and strategies for transitioning to an alternative to the fuel tax to fund surface transportation programs.*



## Potential Solution: Road user fees

**Road user fee:** a per-mile fee drivers would pay instead of the gas tax.

### Features:



**Network wide** – all roads and bridges – state and county



**Same fee applies 24 /7** -- regardless of day or time



**Revenue available to fund statewide needs** – not restricted to a specific road, tunnel or bridge

Instead of paying for roadways based on how much gasoline cars *burn*, drivers would pay based on how much of the *roadway they use* (measured in miles).



## HDOT's Response: Joint research with other Western states

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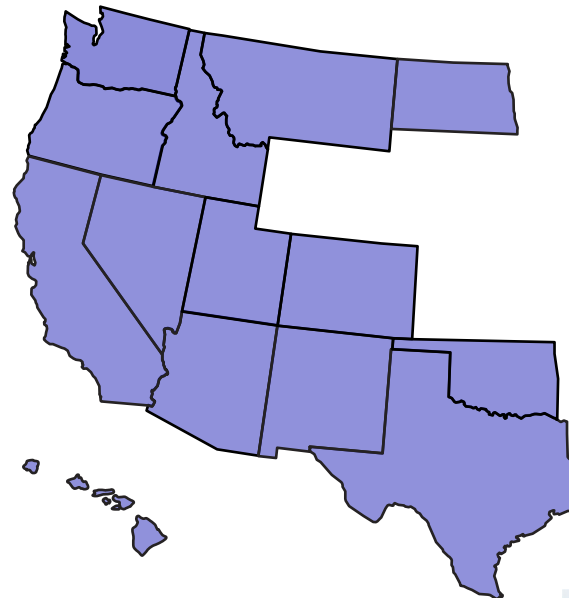


NEW PATHS TO ROAD FUNDING

### Projects with HDOT participation

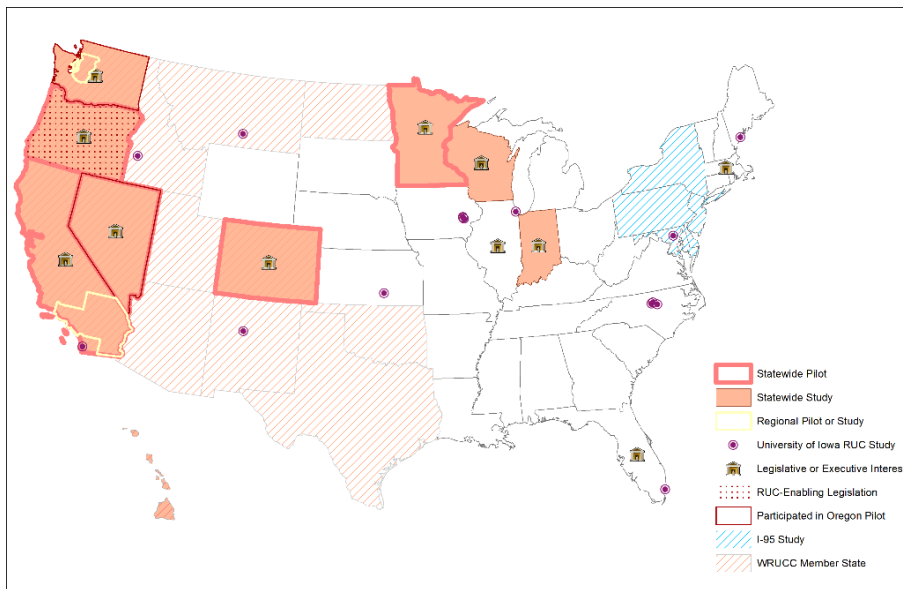
- Web-based cost of transportation calculator
- Roadmap for considering road user fees
- Protection of privacy in a road user fees system
- Regional pilot system definition
- Effects of road user fees on rural residents
- Communications strategies

- Provides a collaborative forum to share information and best practices, discuss issues, observe and learn from other DOTs who are at different stages of testing and implementation, and facilitate joint research.
- Hawaii joined in March 2014
- Currently 14 member states



## HDOT's Response: Investigating the feasibility of a road user fee for Hawaii

Like many other states in the U.S., HDOT is investigating a potential road user fee for Hawaii.



- As of early 2016, 9 states had conducted or were conducting statewide studies or tests of per-mile fees (darker orange)
- Hawaii is one of 14 states participating in RUC West (lighter orange)

**Input from:** DBEDT, DOTAX, All Counties including Honolulu DIT, HTA

### **Completed: Statewide Road User Fee Feasibility Study**

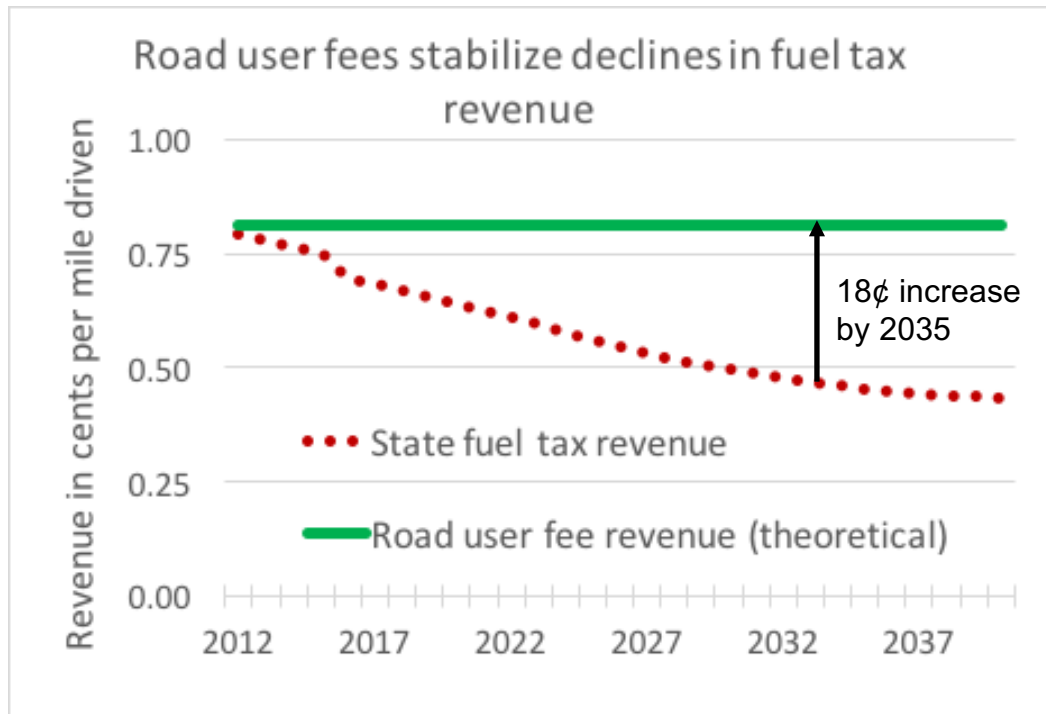
- ✓ Identified *potential benefits, issues, concerns and policy choices* for public officials
- ✓ Provided *operational concepts* for how road user fees might work in Hawaii
- ✓ Completed a *financial analysis* of road user fees vs. gas taxes in Hawaii
- ✓ Identified *public acceptance factors* for road user fees in Hawaii



**Advantage:** Road user fees provide a sustainable transportation revenue source for all roadways in Hawaii

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As fuel economy continues to improve, revenue for road maintenance and repairs declines (**dotted red line**).



Just to stabilize current per-mile revenue, **the gas tax would need to increase by 100% or more** – reaching 34 cents per gallon by 2035.

**Road user fees stabilize the per-mile revenue for roadways (solid green line above),** even as vehicle fuel economy in Hawaii continues to grow.

*With road user fees, the per-mile rate need not be increased to maintain the same per-mile revenue.*



## **Concern:** Making sure road user fees are fair to lower-income and rural residents

When first hearing about a potential per-mile fee, some people assume this would unfairly cost more to lower-income households or those who live in rural areas.

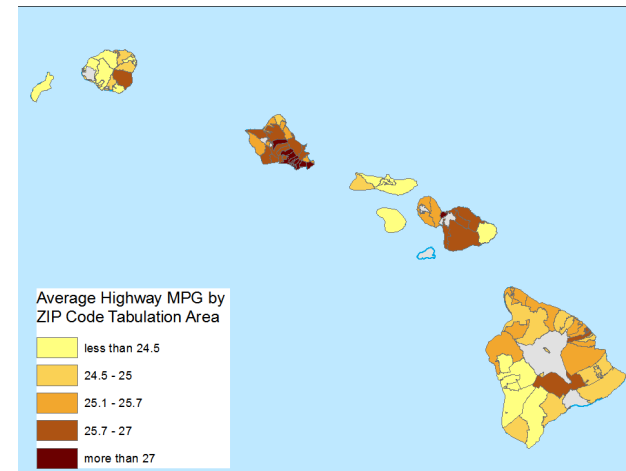


### **Concerns from:**

- Rural residents
- Long-distance daily commuters
- Lower-income populations

**...but analysis shows that lower-income and rural drivers may benefit from road user fees**

Region	Average MPG of Cars Registered in Rural Areas	Average MPG of Cars Registered in Urban Areas
Statewide	21.59	22.94
City & County of Honolulu	22.36	22.97
Hawaii County	21.50	22.94
Kauai County	21.28	23.44
Maui County	21.75	22.65

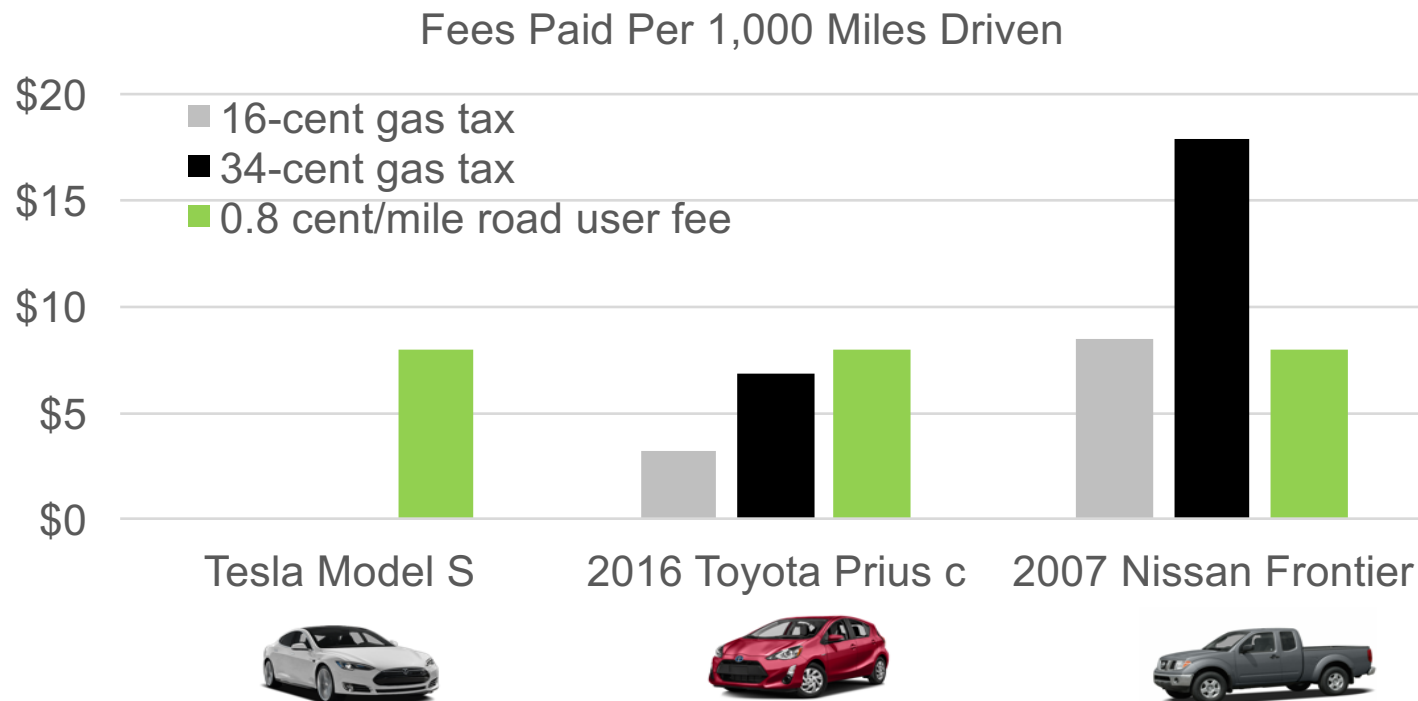


Rural drivers and lower-income households tend to drive older, less fuel-efficient vehicles. They *already pay more than other drivers*, so on average a road user fee would be a cost savings.



**Advantage:** Road user fees are direct charges – all drivers pay the same per mile driven

As drivers opt for electric, hybrid, and other highly-efficient cars, the amounts they contribute in gas taxes for roads becomes *increasingly inequitable* even though they may travel the same number of miles (compare the **gray bars** below):



Like electricity and water utilities, **drivers would pay equally based on their use of Hawaii's road system** regardless of the type of vehicle they drive (compare the **green bars** above).



# Road User Fees: How it might work

There are many ways a mileage charge can be applied. Other states considering road user fees would **allow drivers to choose** which mileage reporting method they prefer:

## High-tech options...



Built-in electronic systems



Smartphone apps



Plug-in mileage meters



Pay-at-the-pump systems

## ... or Low-tech options...



Purchase a permit to drive a set # of miles



Report total miles driven during annual vehicle safety inspection or vehicle registration



Pay a flat-rate fee to drive unlimited miles in a year




## Road User Fees: How it might work (continued)

Hawaii already collects mileage data during annual vehicle safety inspections, making a future transition to road user fees **easier for drivers** and **less costly to the state**.

### VEHICLE INSPECTION REPORT

\_\_\_\_\_ Mileage: \_\_\_\_\_ Year/Make/Model: \_\_\_\_\_  
\_\_\_\_\_ License: \_\_\_\_\_ email: \_\_\_\_\_



A photograph showing a person's hands holding a tablet computer, displaying a digital inspection report. The person is standing next to a dark-colored car in a garage or workshop setting. The tablet screen shows a checklist with various vehicle components and their status.

### VEHICLE INSPECTION REPORT

Name: \_\_\_\_\_ Mileage: \_\_\_\_\_ Year/Make/Model: \_\_\_\_\_  
VIN: \_\_\_\_\_ License: \_\_\_\_\_ email: \_\_\_\_\_

☐ CHECKED AND OK ☐ MAY REQUIRE ATTENTION ☐ REQUIRES IMMEDIATE ATTENTION

INTERIOR/EXTERIOR	UNDER VEHICLE	TIRES
<input type="checkbox"/> Exterior Body	<input type="checkbox"/> Brakes (Pads / Shoes)	<input type="checkbox"/> Tread Depth
<input type="checkbox"/> Windshield / Glass	<input type="checkbox"/> Brake Lines / Hoses	<input type="checkbox"/> 7/32" or greater
<input type="checkbox"/> Wipers	<input type="checkbox"/> Steering System	<input type="checkbox"/> 3/32" to 6/32"
<input type="checkbox"/> Lights (Head, Brake, Turn)	<input type="checkbox"/> Shocks & Struts	<input type="checkbox"/> 2/32" or less
<input type="checkbox"/> Interior Lights	<input type="checkbox"/> Driveline (Axles / CV Shaft)	<input type="checkbox"/> LF <input type="checkbox"/> RF <input type="checkbox"/> LR <input type="checkbox"/> RR
<input type="checkbox"/> AC Operation	<input type="checkbox"/> Exhaust System	<input type="checkbox"/> 7/32" <input type="checkbox"/> 3/32" <input type="checkbox"/> 2/32"
<input type="checkbox"/> Heating	<input type="checkbox"/> Fuel Lines & Hoses	<input type="checkbox"/> LF <input type="checkbox"/> RF <input type="checkbox"/> LR <input type="checkbox"/> RR
<input type="checkbox"/> Other	<input type="checkbox"/> Other	<input type="checkbox"/> 7/32" <input type="checkbox"/> 3/32" <input type="checkbox"/> 2/32"
<input type="checkbox"/> Engine Oil		<input type="checkbox"/> Wear Pattern/ Damage
<input type="checkbox"/> Brake Fluid		<input type="checkbox"/> Air Pressure
<input type="checkbox"/> Power Steering Fluid		<input type="checkbox"/> Tyres Warning System
<input type="checkbox"/> Washer Fluid		<input type="checkbox"/> Tire Check/ OE Interval Suggests:
<input type="checkbox"/> Belts & Hoses		<input type="checkbox"/> Alignment
<input type="checkbox"/> Antifreeze/Coolant		<input type="checkbox"/> Balance
<input type="checkbox"/> Air Filter		<input type="checkbox"/> Rotation
<input type="checkbox"/> Cabin Filter		<input type="checkbox"/> New Tire
<input type="checkbox"/> Fuel Filter		
<input type="checkbox"/> Spark Plugs / Wires		
<input type="checkbox"/> Other		
<input type="checkbox"/> Battery Charge		
<input type="checkbox"/> Battery Condition		
<input type="checkbox"/> Cables & Connections		

Comments: \_\_\_\_\_

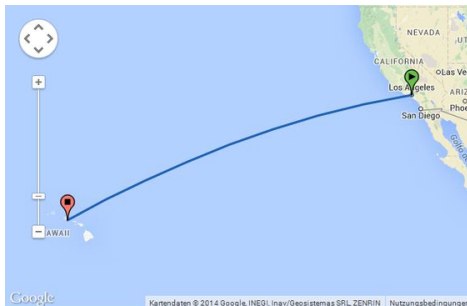
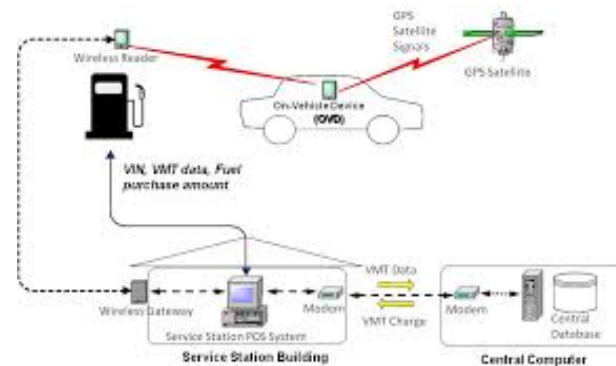
Inspected by: \_\_\_\_\_ Date: \_\_\_\_\_

Vehicle mileage in Hawaii is checked and reported by independent inspectors



## Potential Issue: Protecting the personal privacy of drivers

Before 2008, high-profile tests of per-mile fee systems required government-mandated GPS devices. Many people viewed this as an invasion of personal privacy. **No state is considering a GPS mandate**, yet media reports of “tracking” still prevail.



Providing drivers the *option* of using a location-aware mileage meter allows them to automatically deduct miles driven in neighboring states. Given Hawaii's lack of interstate travel by car, **GPS systems are unnecessary.**

Today's road user fee systems do not require government “tracking” of vehicles. **There is no reason for GPS devices to be required in a road user fee system in Hawaii.**





## Opportunity for Hawaii: Federally-funded pilot project to let drivers test road user fees

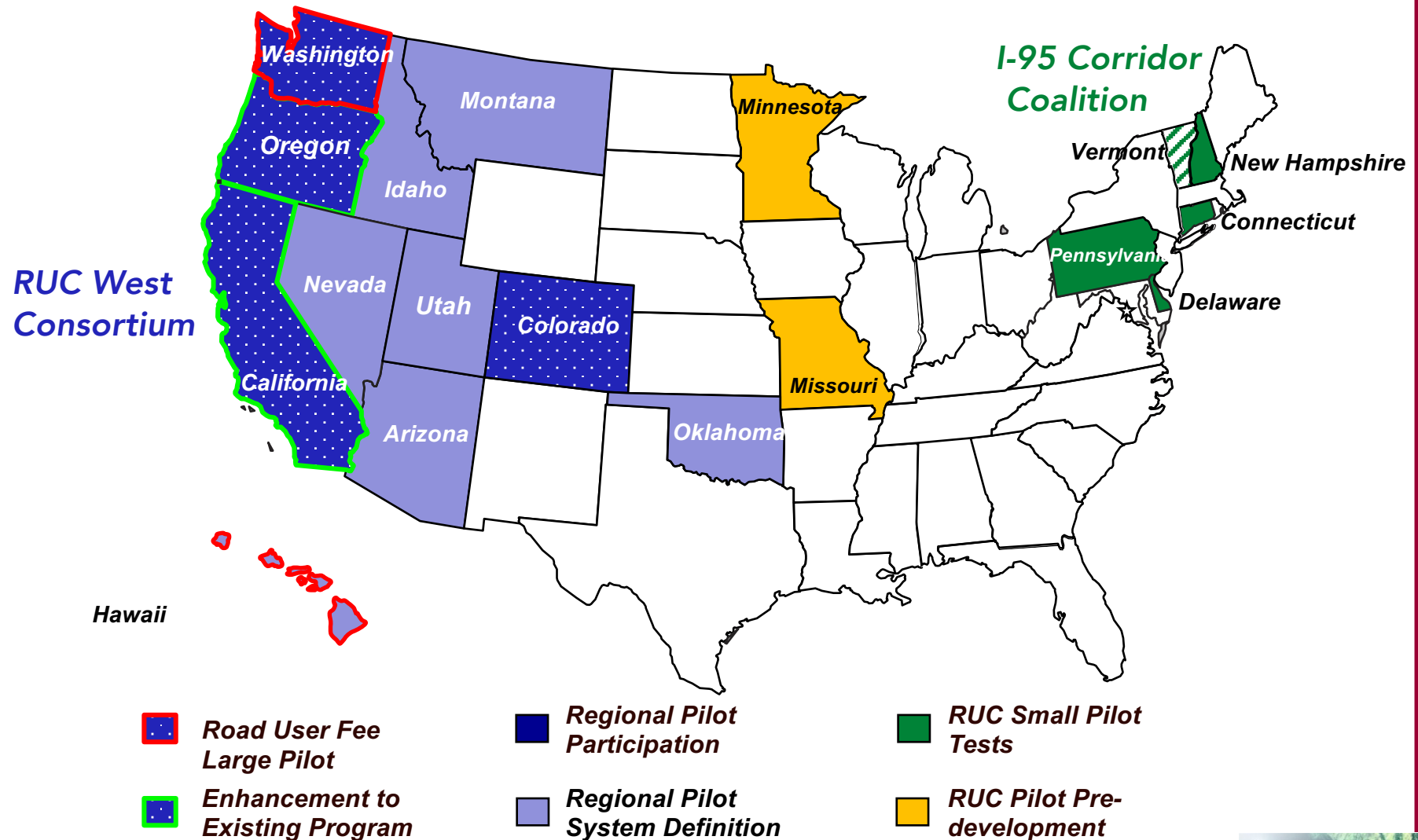
Research and analysis **will help answer some questions**, but research alone cannot provide critical insight into which mileage fee methods the public might find acceptable – **public acceptance is best discovered through a limited, live demonstration of a road user fee system in Hawaii.**



### Federal FAST Act Grant Proposal (\$6.5 M federal funds requested, 36-month pilot):

- Provides Hawaii residents an opportunity to “test drive” a road user fee system at no additional costs to the drivers
- Likes, dislikes and strong public preferences can be measured based on actual experience – not fears or conjecture
- Provides a careful, deliberative and inclusive public policy-making process

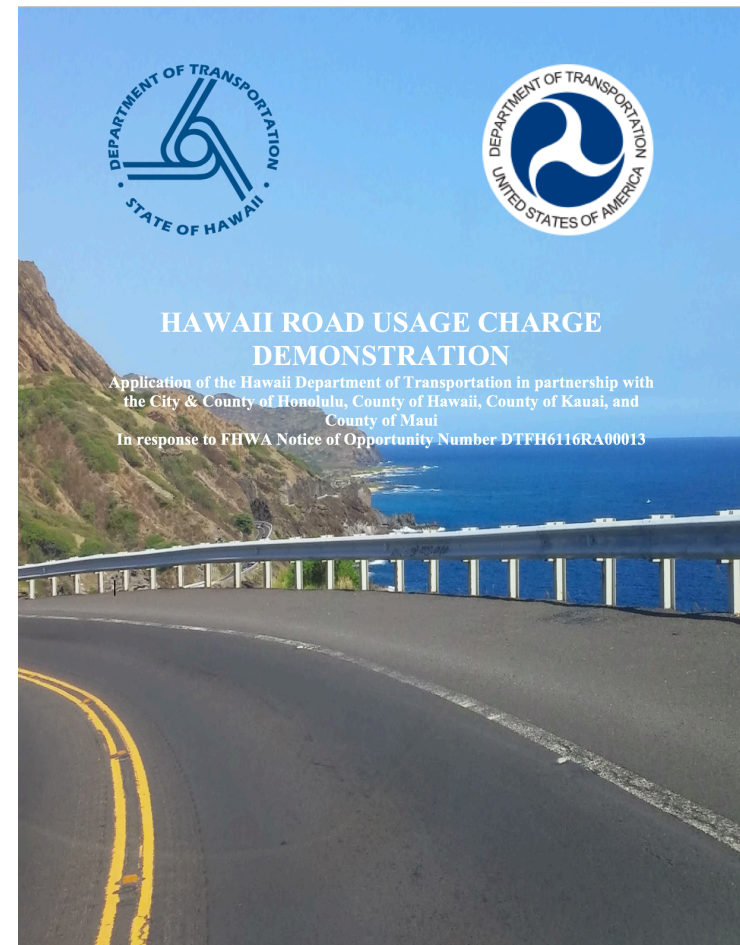
## FAST Act Grants: States awarded funds to test user-based revenue alternatives



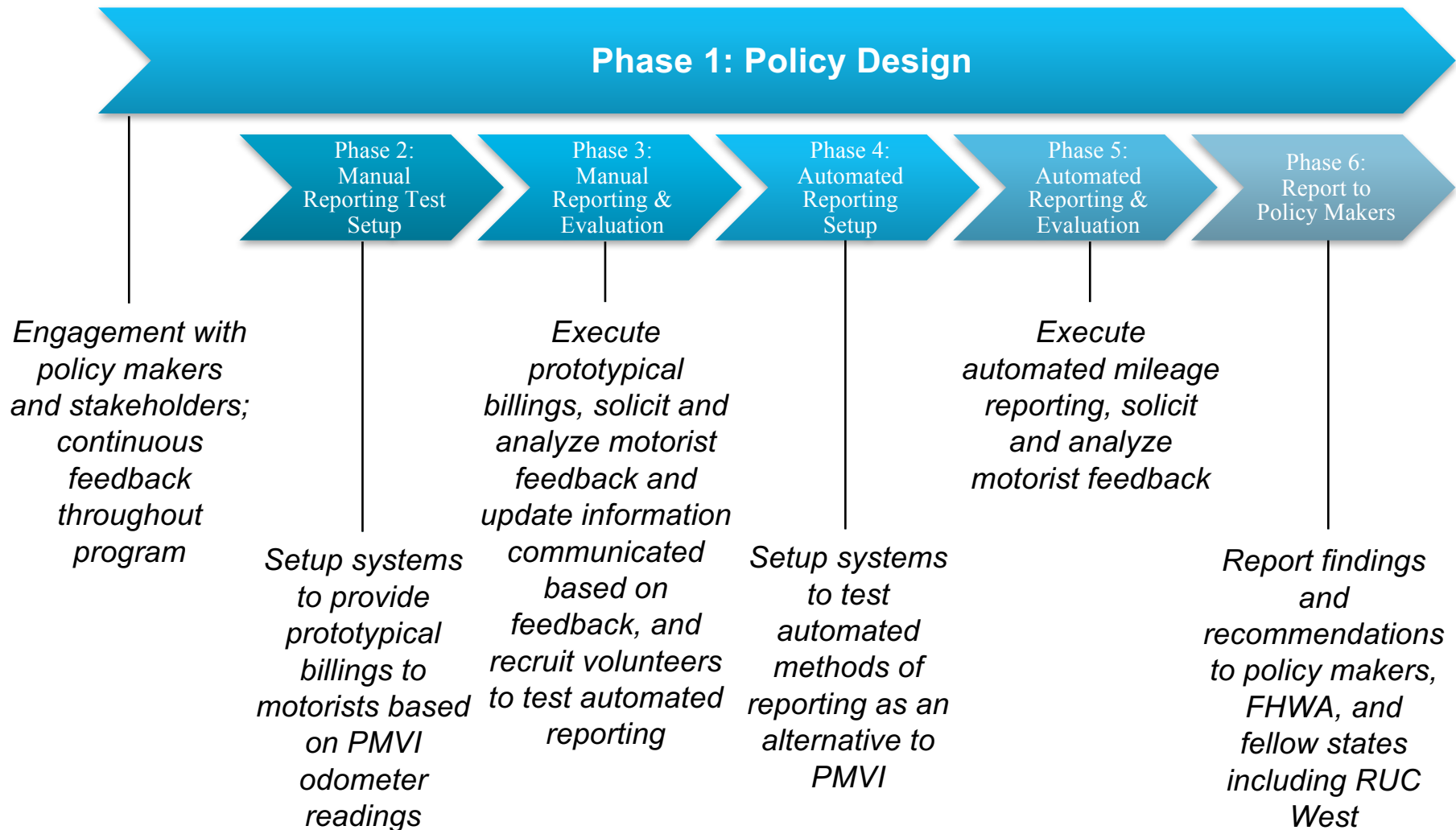
## **Hawaii Demonstration Project:** Tailored to address real challenges and generate outputs of value to Legislators and stakeholders

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- Largest road user fee demonstration proposed, allowing for widespread communications and continuous feedback from our state's residents and continuous system modification and improvement
- Test a statewide road user fee not only as a potential successor to state fuel taxes but also as a potential platform for collecting federal fuel taxes, county fuel taxes, and other state and county user-based fees such as registration and weight fees
- Engage with Legislators, stakeholders, and motorists to gather feedback that informs policy recommendations on whether and how to enact a RUC
- Awarded \$3.998 million in Federal funds



## Hawaii Demonstration Project: 6 phases, building on existing procedures and exploring advanced technology





## Hawaii Demonstration Project: Collaboration

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## Hawaii Demonstration Project: Build on analysis of open questions

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- How can road user fees and state energy objectives align?
- How can impact of road user fees on rural residents and long-distance commuters be addressed?
- How can impact of road user fees on low-income drivers be addressed?
- How efficiently can road user fees be collected and enforced?
- What are the possibilities for integrating road user fees with existing vehicle fees and considering periodic payments rather than annual lump-sum payments?
- How can a road user fee ensure visitors (rental cars) contribute their fair share?



## **Support:** How leaders can support HDOT's exploration of road user fees

As HDOT investigates road user fee, there are several ways that leaders can support efforts to find a sustainable and equitable revenue source for transportation.

### **Support HDOT's information gathering:**

- Get involved with the demonstration project to help gauge public acceptance factors
- Provide inputs including questions that HDOT can address through demonstration project and related research



### **Share the facts:**

- HDOT is researching this option to gather information that allow us to make recommendations to policy makers
- No “tracking” of vehicles is required or needed
- Road user fees are a potential replacement for gas taxes, not a new tax
- All issues and concerns will be fully explored and analyzed



### **Try before you buy:**

- Volunteer to participate in the detailed test phase (Phase 2)
- Encourage others to actively participate in the test – a unique chance for the public to “test drive” an innovative approach, and share their preferences



# Questions?

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