



# Road User Charge Pilot Programs: Examples of Regional Collaboration and Innovation

WEBINAR SERIES: INNOVATION IN PRACTICE

WEBINAR 8

May 14, 2018

# Webinar Logistics

- **PowerPoint Presentation available on BATIC Website**
  - [http://www.financingtransportation.org/capacity\\_building/event\\_details/webinar\\_road\\_user\\_charge\\_pilot.aspx](http://www.financingtransportation.org/capacity_building/event_details/webinar_road_user_charge_pilot.aspx)
- **Submit questions in Q&A box**
- **Webinar will be available on BATIC website**

# BATIC Institute

## In-person Services

- Peer Exchanges
- Training Seminars
- Workshops

## Online Services

- Customized Website
- Interactive Webinars

## Quick Turnaround Research

## TRANSPORTATION FINANCE

- Bond Financing
- Federal Credit
- Public Private Partnerships
- Other Finance Tools

Visit our website at:

<http://www.financingtransportation.org>

# Webinar Overview

- **RUC Overview and Activity in the US**
- **FAST Act STSFA Grants**
- **Western Road Usage Charge Consortium**
- **I-95 Corridor Coalition**
- **Common Themes**
- **Questions Submitted by Webinar Participants**

# RUC Overview and Activity in the US

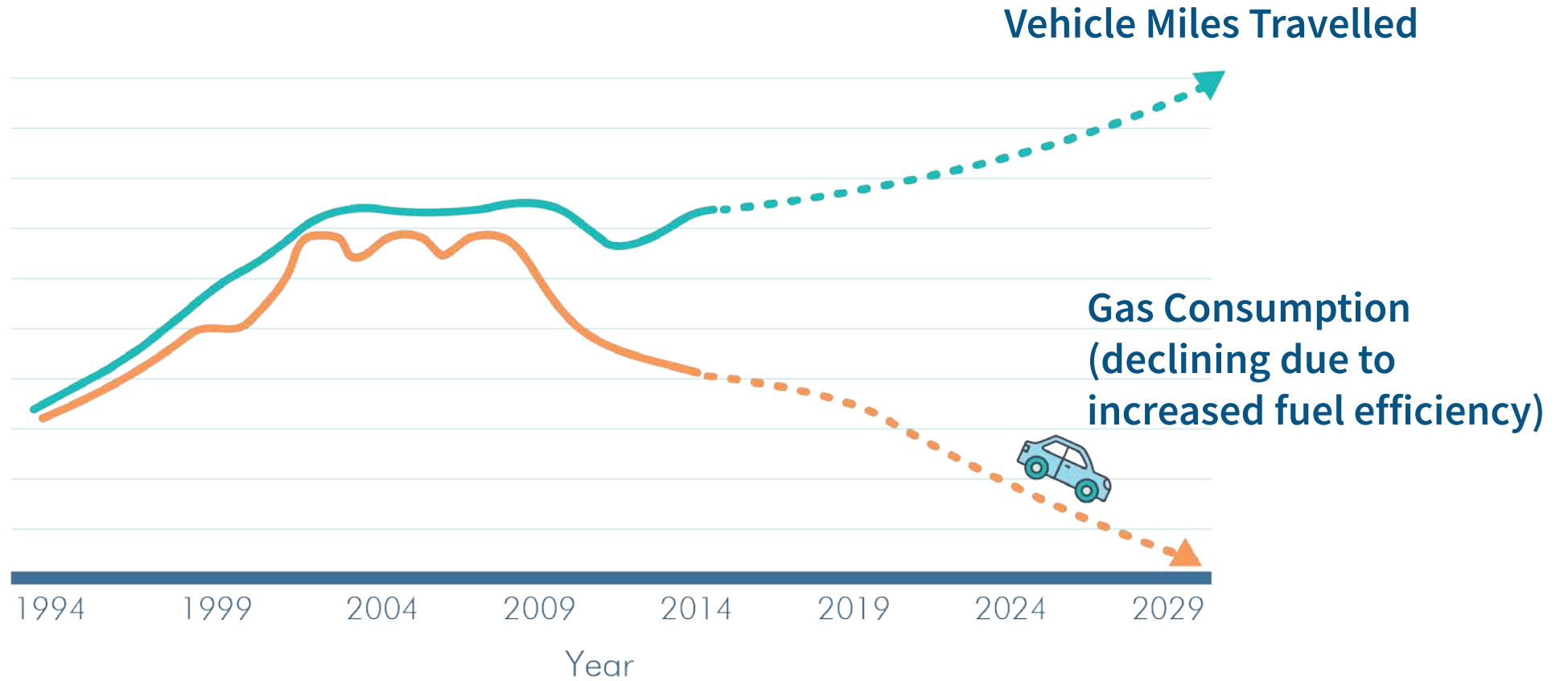
Norma Ortega

VICE CHAIR, Mileage Based User Fee Alliance (MBUFA)

# Paying for Transportation in the Long Run

- **The current U.S. system relies on fuel taxes**
- **We have seen a marked decline in revenues**
- **Two National Commissions have called for short and long-term solutions**
- **MBUF collection systems have come to the forefront of options to consider**
  - Mileage based user fee (MBUF)
  - Road user charge (RUC)
  - Vehicle miles traveled fee (VMT)

# Revenue Loss Due to Increased Fuel Efficiency



# Volvo's Electric Future

The automaker says starting in 2019 it will make only electric or hybrid cars.



KRISHNADEV CALAMUR | JUL 5, 2017 | NEWS

## Tesla's Model 3 is the millennial dream car

Mark Matousek    
Feb. 12, 2018, 1:14 PM  14,548

[FACEBOOK](#) [LINKEDIN](#) [TWITTER](#) [EMAIL](#)



The interior of Tesla's Model 3, which has a 15-inch touchscreen display. [Tesla](#)

- Tesla is the premier, aspirational car brand for millennials.

ALEX DAVIES TRANSPORTATION 10.02.17 12:01 PM

# GENERAL MOTORS IS GOING ALL ELECTRIC





# Policy Strengths

- **Fairness—proportional to extent of use.**
- **Applies regardless of propulsion source.**
- **Will grow along with VMT, as economy and population grow.**
- **Could be indexed for inflation.**
- **Could be higher for costly highways, lower for local streets & roads (unlike fuel tax).**
- **Would restore the original users-pay/users-benefit principle on which fuel taxes used to be based.**

# Issues That Must Be Addressed

- Privacy protection
- Evolution of technologies
- Scalability of systems
- Flexibility of systems for policy adaptations
- Complexity of implementation
- Difficulty of operations
- Making compliance simple and easy
- Interoperability among states
- Data security
- Cost of administration
- Equity by income, geography and vehicle type
- Transition

# Privacy

- **Context of privacy debate has shifted with recent scandals. Trust is a bigger issue. Privacy entails both:**
  - Protection from government misuse of data
  - Protection against information breaches for malicious intent
- **Four approaches to privacy can work in concert**
  - Tech that does not transmit data other than what is owed
  - Using a trusted third party to protect and secure private data
  - Tech where user controls privacy settings
  - Privacy legislation that sets rules and accountability

# Equity Considerations

## Rural Drivers

- Typically travel greater distances for essential activities and do more off-road driving

## Fuel Efficient Vehicles

- Currently paying less than traditional vehicles for same road usage

## Less Affluent Drivers

- Currently paying more for road usage than more affluent users due to older, less fuel efficient vehicles

## Non-Resident Drivers

- Until regional system evolves they could continue paying fuel tax

# Technology for Metering Miles

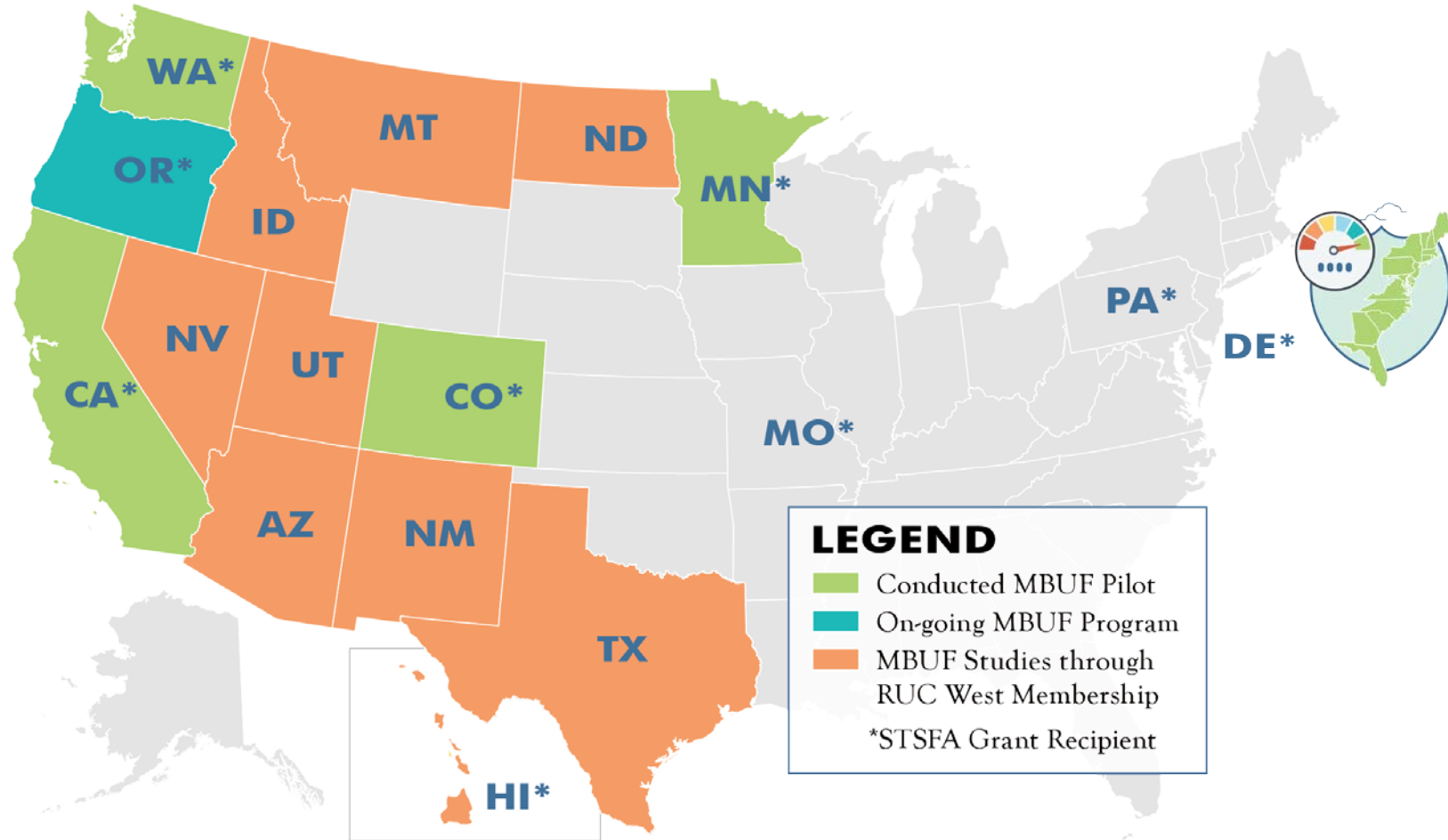
There are options...

- Odometer - Periodic inspections determine fee.
- Simple On Board Unit (OBU) - On board data collection, with periodic transmission.
- OBU with cellular location - On board determination of jurisdiction of travel.
- OBU with GPS - Fine grained travel data.
- Smartphone application - On board data collection with GPS and cellular communications for metering and reporting.

# Likely Success Factors

- Understand contentious issues and address them up front. Build trust.
- Include choices for participants, so they are in control.
- Tackle privacy head on and involve privacy advocates.
- Conduct trials and educational outreach. Include elected officials, media, and stakeholders in the trials.
- Start simple and add on layers over time.
- Build a system that is flexible and easy to adapt and add on and can integrate with other systems.
- Involve private sector and use competition.

# RUC Research and Testing in the US



# FAST Act Surface Transportation System Funding Alternatives (STSEFA) Program Grants

Angela Jacobs

STSEFA PROGRAM MANAGER  
FHWA



## STSFA Program Vision

- **FAST Act Section 6020 created a new Section 503(b) of the United States Code which establishes a program to provide grants for the demonstration of:**
  - User based alternative revenue mechanisms.
  - Utilization of a user fee structure.
  - For purposes of maintaining the future long-term solvency of the Federal Highway Trust Fund.

## STSFA Program Goals

- **Implementation, interoperability, public acceptance and potential hurdles to adoption of the demonstrated user-based alternative revenue**
- **Privacy protection**
- **Equity concerns**
- **Ease of user compliance**
- **Reliability and security related to the use of technology**

## STSFA Program Funding

- **The FAST Act provided \$15 million in FY 2016, and \$20 million annually from FY 2017 through FY 2020 for demonstration project grants**
- **50% match requirement**
- **The grants are only available to states or groups of states**

## STSFA Funding Awarded to Date

- For FY 2016, \$14.2 million was awarded for STSFA demonstration projects after the reduction of the \$15 million in Section 6020 based on the imposition of the FY2016 limitation on obligations.
- For FY 2017 after the obligation limitation takedown, the amount available for award was \$18,560,000. Based on the funds requested from the applications submitted, \$15.5 million was awarded for STSFA demonstration projects.
- At this time, nine states have been awarded funds

## STSFA Types of Strategies Funded

- Expanded existing public outreach programs
- Assess the acceptance of road user charge
- Explore Pay –at-the-Pump/Charging Station
- Explore impacts on rural and agricultural communities
- Demonstrate a user based fee with fleet operated Shared Mobility service providers

# FY 2018 Notice of Funding Opportunity

- **The FY18 NOFO was released via grants.gov on April 13, 2018**
- **A webinar is scheduled for May 29, 2018 (1:00 – 2:30)**
- **The solicitation process will close on July 15, 2018**
- **The goal is to announce project awards by early fall of this year**

# Western Road Usage Charge Consortium

Carlos Braceras

DIRECTOR, Utah DOT  
BOARD CHAIR, Western Road Usage Charge Consortium

# Fast Facts About Transportation Funding



Loss of Gas Tax Revenue



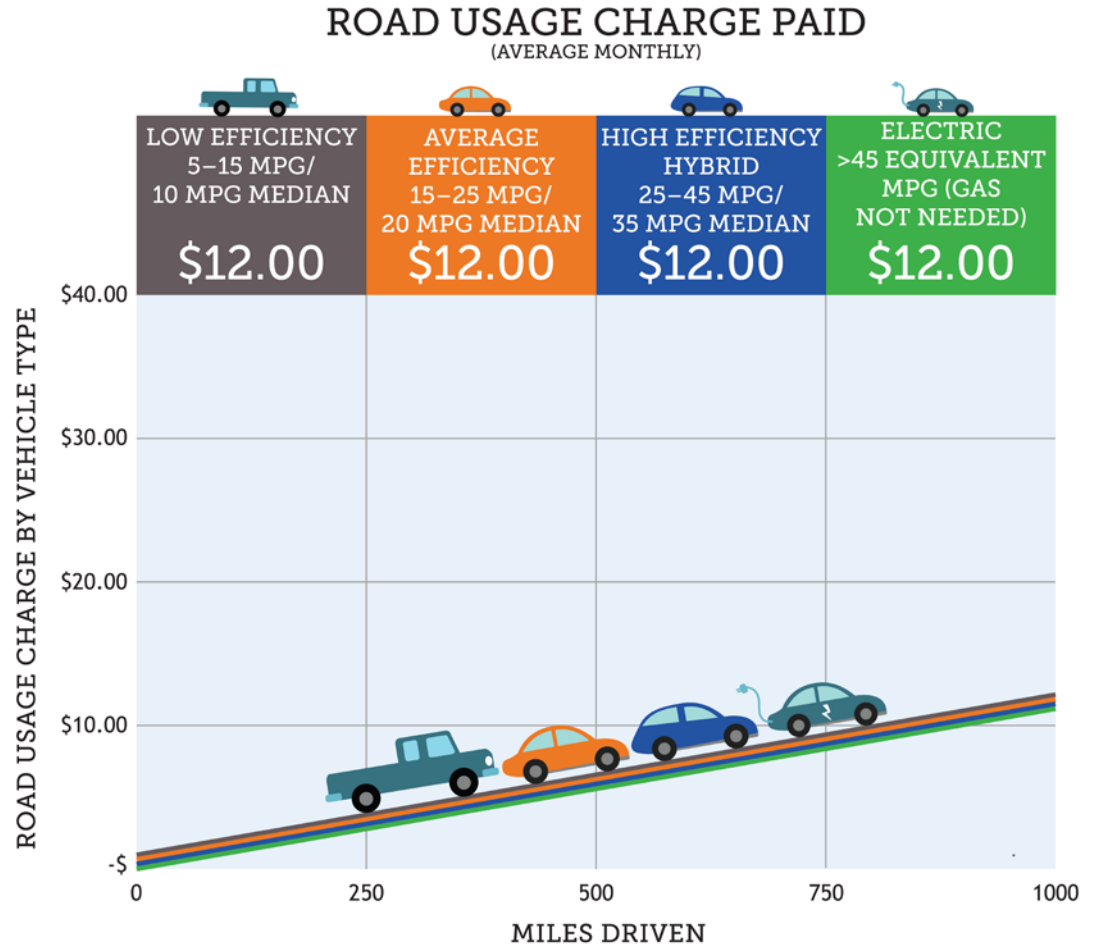
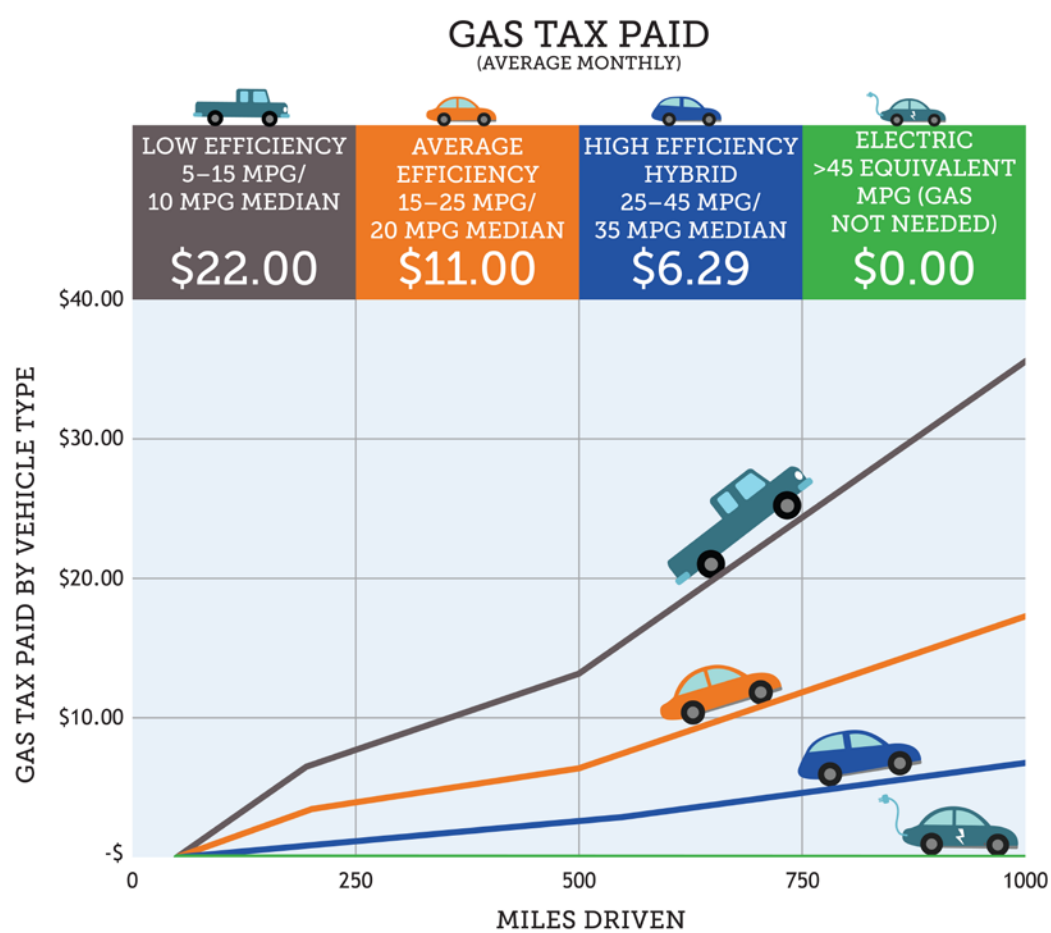
Highways in Poor  
Condition



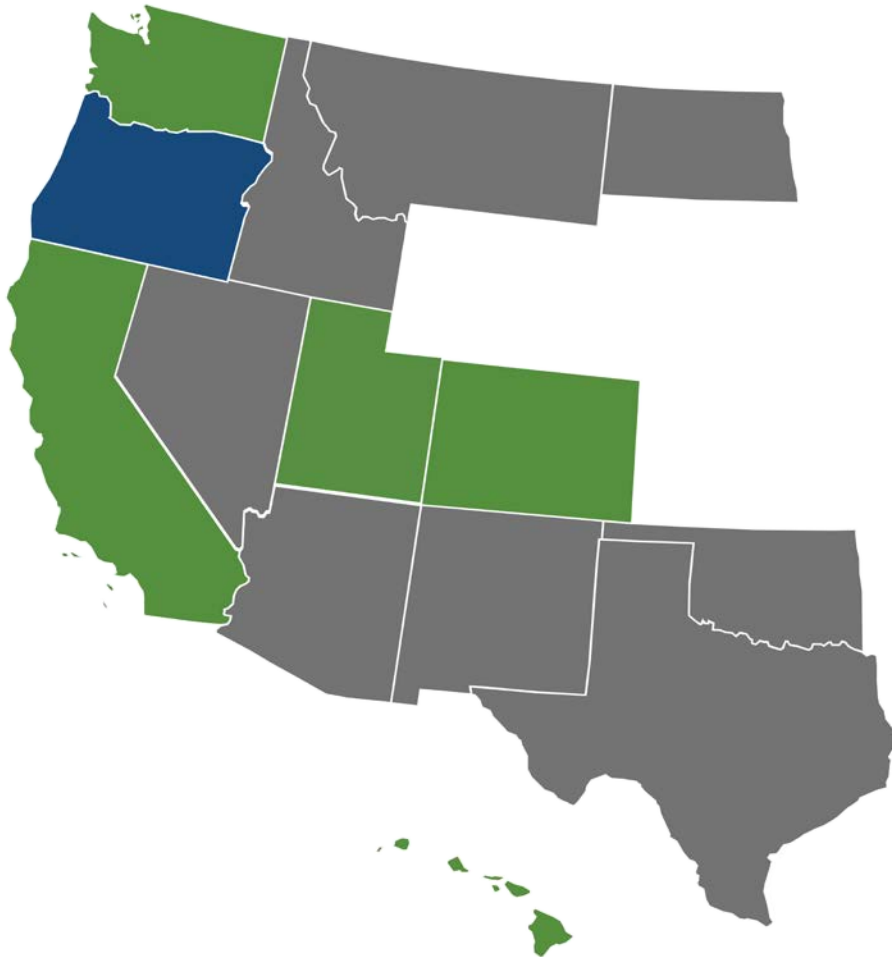
Ongoing Costs of Repair



# How Does Gas Tax Compare to RUC



# RUC West Member States



## Tier 1: States with Policy Enacted to Implement RUC Programs

- Oregon



## Tier 2: States Testing RUC Pilot Programs

- California
- Colorado
- Hawaii
- Utah
- Washington



## Tier 3: States Researching RUC Pilot Programs

- Arizona
- Idaho
- Montana
- Nevada
- New Mexico
- North Dakota
- Oklahoma
- Texas

## RUC West Projects

- **Roadmap for State Consideration of a RUC System**
- **Addressing Out-of-State Drivers in a RUC System**
- **Online Road Charge Calculator**
- **Protection of Privacy in a RUC System**
- **RUC Vendor Certification**
- **Effects of a RUC on Rural Residents (ongoing)**

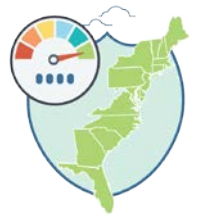
# Utah Transportation Governance Bill



# I-95 Corridor Coalition

Patricia Hendren

EXECUTIVE DIRECTOR, I-95 Corridor Coalition



# I-95 Coalition STSFA Grants

Purpose: Explore the feasibility of replacing the gas tax with a mileage-based user fee program in a multistate environment



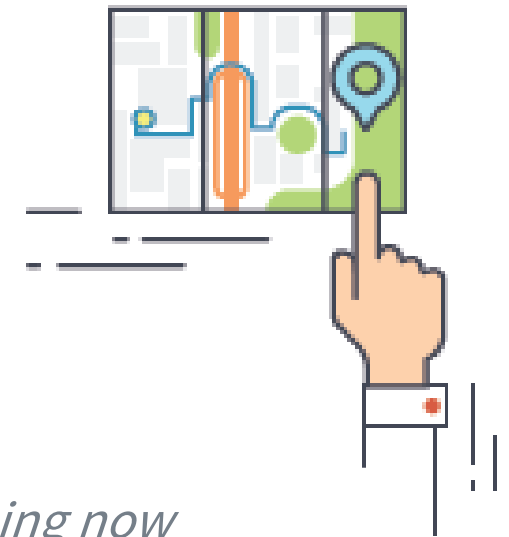
## 1. Dive into the difficult issues

- Privacy, equity, urban vs. rural
- Financial implications

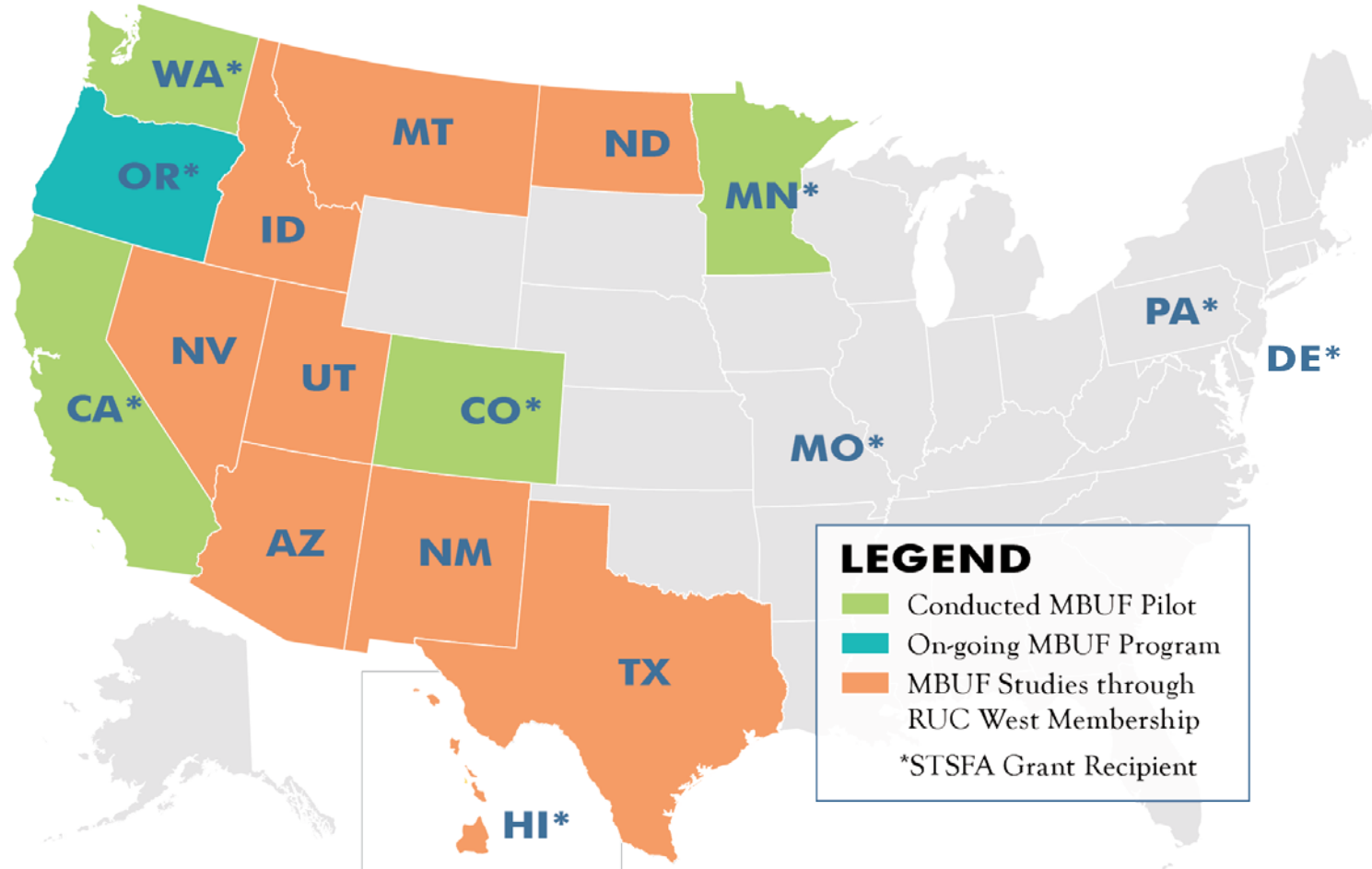
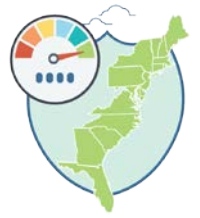
## 2. Education, education, education

## 3. Gather real-world experience

- Focused regional pilot ~ 100 participants – *happening now*
- Volunteer pilot ~ 1,000 participants
- Multi-state truck pilot ~ 50 vehicles



# Why I-95 Corridor Coalition? *East Coast voice is needed.*



# Why the I-95 Corridor Coalition?

## 16 states + D.C.

In the Corridor

2<sup>nd</sup>

Largest Economy in the World

\$4.7 Trillion  
40% of US GDP

37%

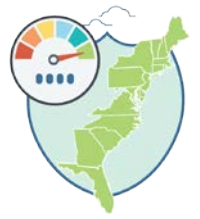
Of America's population:  
110 Million people

46

Major Seaports  
\$172 Billion Imports  
34% of U.S. total







# More than I-95

## Multi-modal • Multi-jurisdictional • Multi-disciplinary



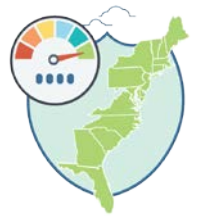
The I-95 Corridor Coalition is a partnership of multi-state, multi-modal public agencies working together to create a seamless and efficient transportation system.



# Focus of I-95 MBUF Study

- **Out-of-state mileage**
  - How will travel across boundaries be handled?
- **Tolling**
  - What is the relationship between tolling and MBUF?
- **Trucking**
  - How does a user-fee fit into current requirements?
- **Amenities**
  - Will value-added amenities help with public acceptance?

# Out of State Travel Happens Everyday



- **The I-95 MBUF study will examine issues associated with the large amount of out-of-state (OOS) travel in the corridor.**
  - For example, **over 4 million person trips** are made annually by car between the Washington DC metropolitan area and the Philadelphia, Pennsylvania area.
  - And, 16% of Delaware residents work in a another state while 15% of Delaware workers live in another state.

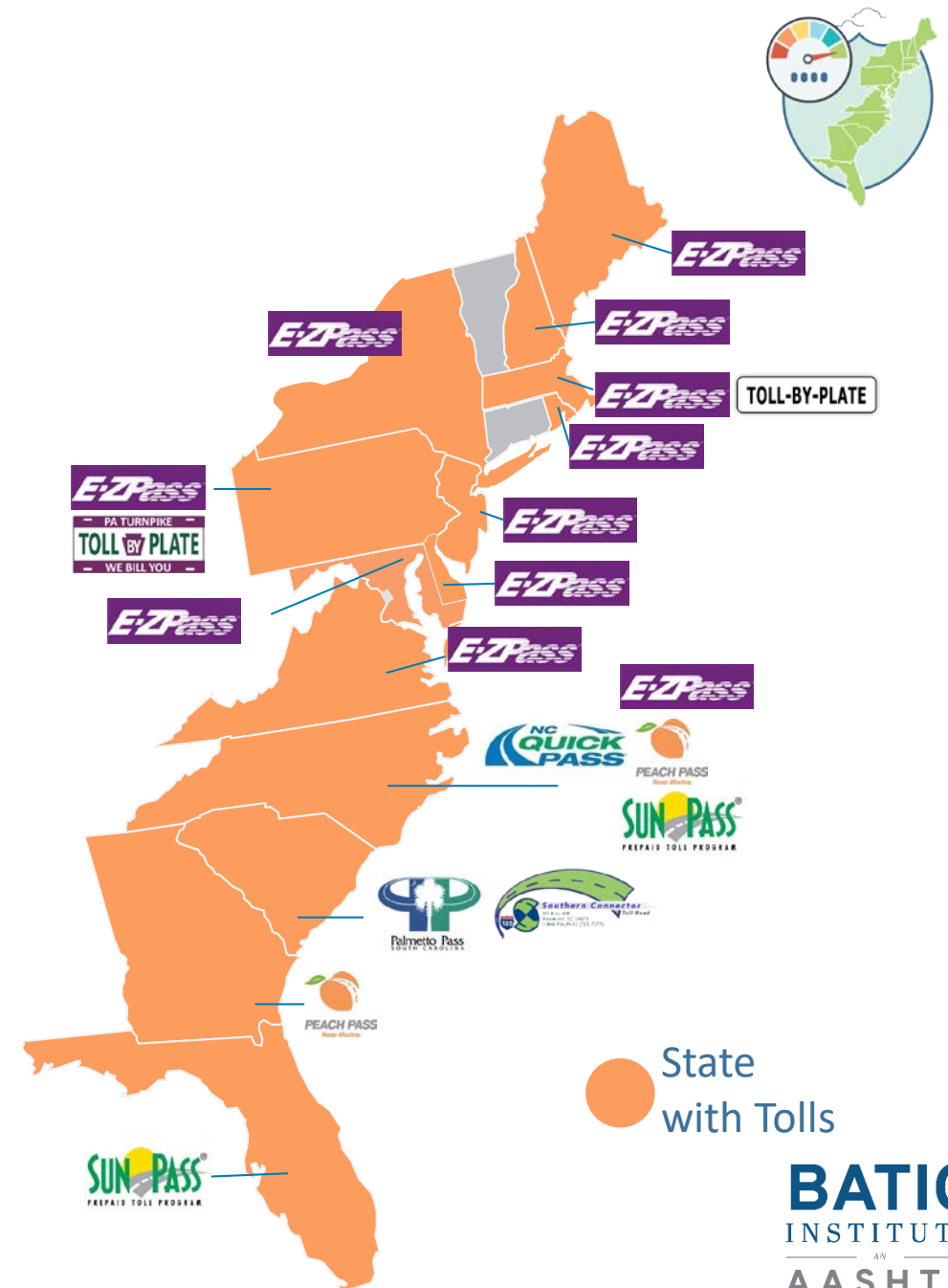


Toll roads are common in the corridor



# Intersection of Tolling and MBUF

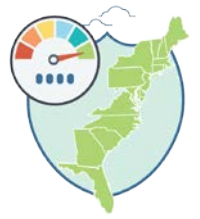
- Interoperability
- Using toll data to support MBUF
  - Estimate out-of-state travel
- Using MBUF to support toll collection
  - I-95 (Two-way barrier toll)
  - Delaware Memorial Bridge (One-way barrier toll / entering DE)
  - Delaware SR-1 (Toll depends on where vehicle enters / exits)
- Role of back office centers in MBUF





# 5 Billion TONS OF FRIEGHT

Almost 40% of America's  
GDP passes through the  
Corridor



# Multi-State Truck Pilot

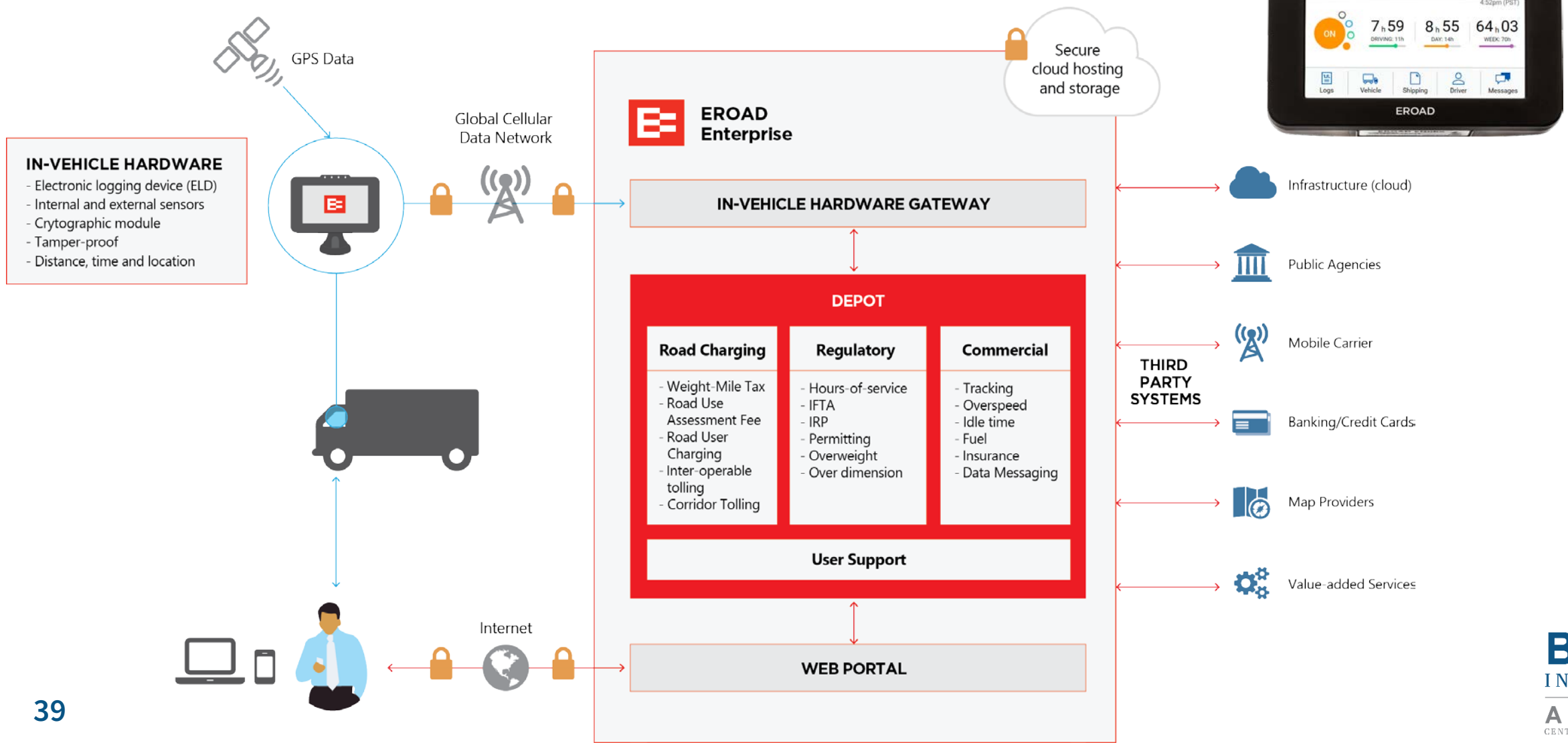
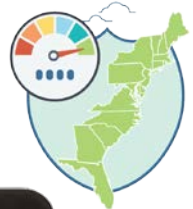
- The I-95 Corridor Coalition truck pilot, slated to begin by the end of the year, will include 50 vehicles equipped with EROAD in-vehicle hardware for six months.
- The EROAD system will record accurate GPS-based mileage data and use applicable formulas to support MBUF.



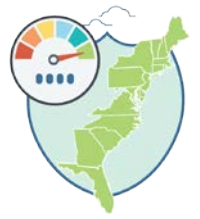
Trucks have been collecting MBUF data for decades as part of the International Fuel Tax Agreement (IFTA)



# Exploring Value-Added Amenities for Trucks



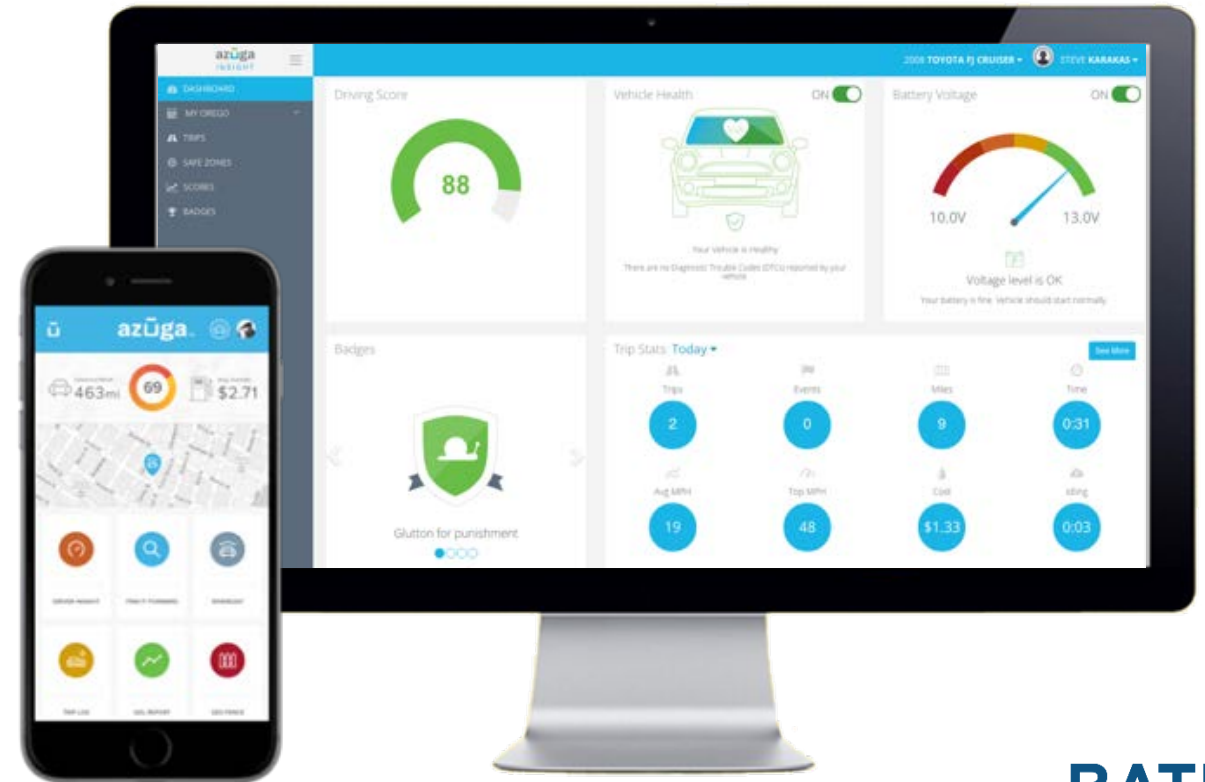




# Exploring Value Added Amenities for Cars

**“Technology and drivers’ needs and wants are turning vehicles into a transportation ‘Fitbit’”**

Source: I95CC Round II STSFA Proposal



# Phase I: Pilot Launched

May 1<sup>st</sup> – July 31<sup>st</sup>



**130+**

people have agreed to participate from around the east coast



**~75**

people have completed enrollment

**80%**

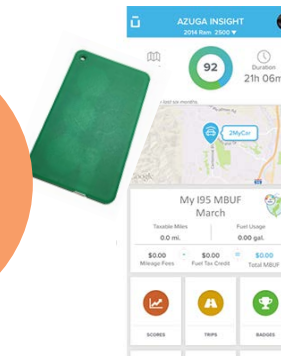
Plug-In Device with Location

**10%**

Plug-in Device w/o Location

**10%**

Android Phone w/ Location



# Common Themes

Jennifer Brickett

DIRECTOR  
BATIC Institute an AASHTO Center for Excellence

# Common Themes

- Education at all levels is critical for success
- Multi-state pilot programs are key to addressing interoperability
- Collaboration and resource sharing is a cost-effective way to build the public sector organizational capacity and expertise
- STSFA grant opportunities are key for advancement

# Questions and Answers

Jennifer Brickett

DIRECTOR

BATIC Institute: An AASHTO Center for Excellence

# Discussion



**Norma Ortega**  
Vice Chair, Mileage Based User Fee  
Alliance (MBUFA)



**Carlos Braceras**  
Director, Utah DOT  
Board Chair, RUC West



**Trish Hendren**  
Executive Director, I-95 Corridor  
Coalition

Please submit any questions to our panel using the Q&A box in the bottom left corner of your screen

# Wrap-Up

- The BATIC Institute will post responses to all questions received today on its website
- The recorded webinar will also be available on the BATIC Institute website:

[www.financingtransportation.org](http://www.financingtransportation.org)

## UPCOMING BATIC INSTITUTE OFFERINGS

### **Webinar on State Legislative Initiatives in Transportation Funding and Finance**

June 13

### **P3 Basics Training for Planners**

Spokane, WA

July 17

### **P3 Basics Training at NCSL Legislative Summit**

Los Angeles, CA

July 29 - 30

### **Roundtable on Funding & Financing Short Line Rail**

Miami, FL

September 11

### **Roundtable on Transit Oriented Development**

Miami, FL

September 11

Thank you for attending today's webinar