

The User Pays? A Potential Solution to the Transportation Funding Crisis

NGA's Transportation Policy Learning Network Webinar

June 10, 2019

NGA SOLUTIONS

Energy, Infrastructure & Environment Division Focus

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Energy Policy Institute

Grid Modernization Retreats

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Transportation Advisors
Water Advisors

Governors Guide to Energy Policy

Energy Efficiency

Lead By Example Workshop

Energy Efficiency Experts Roundtable

Energy Efficiency Roadmap for Governors

Resiliency

State Energy Risk Assessment & Planning Tool and State Resilience Retreats Grid Emergency Exercises

State/Utility Coordination Workshop Housing Resiliency Experts Roundtable

Technical Assistance on Demand

Research

Policy Memos

Consultations

Nuclear Weapons Waste

Federal Facilities Task Force Meeting

Intergovernmental Meeting

Governors Guide to Nuclear Weapons
Waste Cleanup

Smarter States,
Smarter Communities
Learning Lab
Roadmap
Policy Academy Kick Off

Transportation Modernization

Traffic Safety Learning Labs
Electric Vehicle (EV) Regional Workshops
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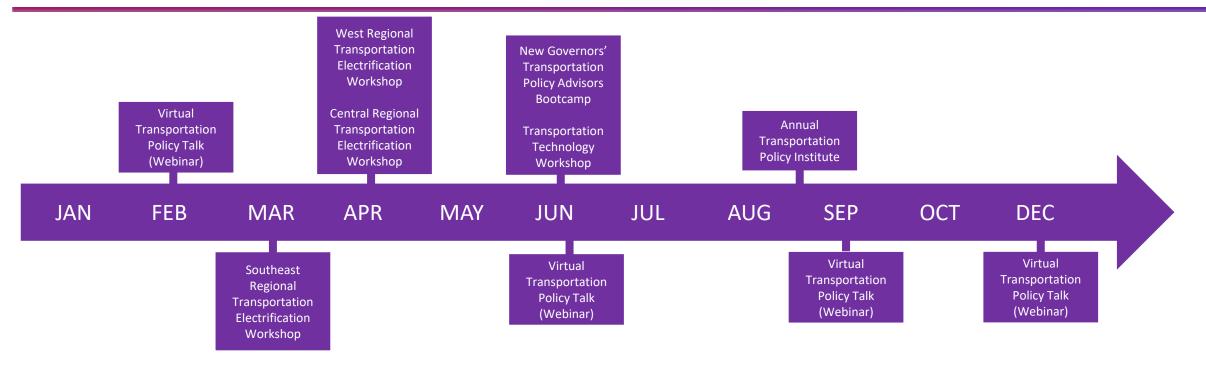
Water Policy Learning Network

Water Policy Institute

Webinar Series

Delaware River Basin Retreats

2019 TIMELINE FOR TRANSPORTATION POLICY LEARNING NETWORK



ANNUAL TRANSPORTATION POLICY INSTITUTE

The Annual Transportation Policy Institute gathers states for peer-to-peer exchanges, strategy sessions and discussions with thought-and-technology leaders on a diverse set of transportation policy, regulatory, revenue, financing, safety and planning issues.

TRANSPORTATION TECHNOLOGY WORKSHOP

NGA will convene a Transportation Technology Workshop to explore how emerging technologies will advance alongside existing technologies and what policy and regulatory changes are needed for states. The workshop will also include an orientation for new transportation policy advisors about key issues and their roles working in the governor's office.

TRANSPORTATION ADVISORY COUNCIL

The NGA Center will convene a small group of subject matter experts to inform the work of the Transportation Learning Network, from various public, private, academic and civil society organizations



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FLUOR

Today's Presenters

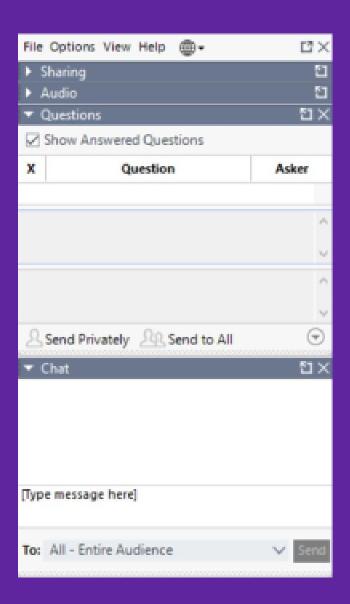


Trish Hendren, PhD
Executive Director
I-95 Corridor Coalition



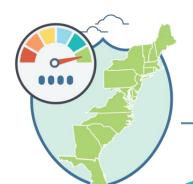
Maureen Bock
Chief Innovation Officer
Oregon Department of
Transportation

Submit questions here





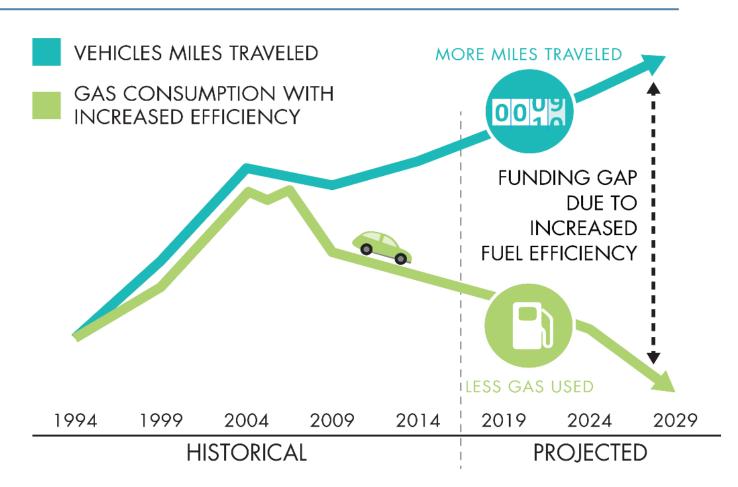




Transportation Revenues are Declining



Decrease in purchasing power of federal fuel tax since 1993



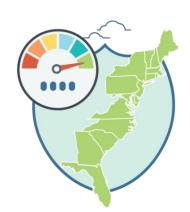


Transportation Fleet is Changing

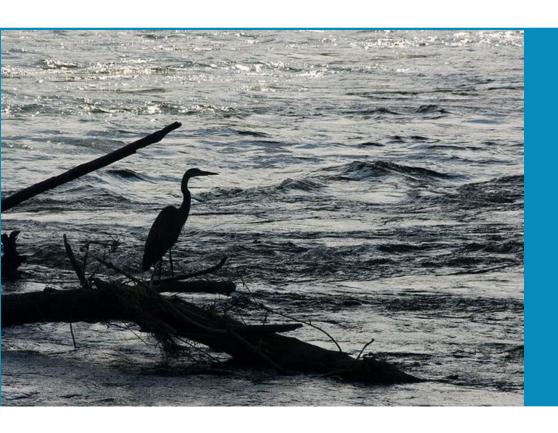


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Drivers have no idea how much they are paying in fuel tax.



Is A Road User Charge or Mileage-Based User Fee A Solution?



What is a RUC or MBUF?





The RUC concept



Collect fuels tax as prepayment of RUC



Count the miles and multiply by the RUC rate



Collect the net tax or credit the difference



6/10/2019

How RUC differs from other funding methods

- All users pay the base rate
 - Similar to fuel taxes
- Not variable by time of day
 - Unlike congestion pricing
- Applicable to entire system
 - Unlike tolling









STSFA grant program

The Surface Transportation System Funding Alternatives (STSFA) program under Section 6020 of the Fixing America's Surface Transportation (FAST) Act

- Authorized grants to States for demonstrating:
 - ✓ User-based alternative revenue mechanisms
 - ✓ Utilization of a <u>user-fee</u> structure
 - ✓ A solution to maintain the <u>future</u> long-term solvency of the Federal Highway Trust Fund



Provides \$95 million over 5 years



California Road Charge Pilot Program (RCPP)

July 1, 2016 – March 31, 2017 (self-funded)

5,125 vehicles (volunteers)

- MBUF rate = 1.8¢ per mile
- Only miles driven in CA charged (location)
- Multiple approaches offered:
 - In-vehicle telematics (some user costs involved)
 - OBD-II plug in (with and w/out location)
 - Smartphone (with and w/out location)
 - Several manual methods
- STSFA grants Explore / initial pilot for pay-at-pump / charge station approach





Colorado RUC Pilot Program

- December 2016 April 2017 (self-funded)
- 100 participants
 - Focused (legislators, transportation leaders/ officials, media), plus
 volunteers from general public
 NABLIE rate = 1.2¢ per mile

 Road Usage Charge
- MBUF rate = 1.2¢ per mile
- Approaches Offered:
 - OBD-II plug in (with and w/out location)
 - Odometer reading (via website or smartphone app / camera)
 - Next phase (STSFA grant) focus on rural and agricultural communities (approx. 250 vehicles, some without OBD-II)
 - Delineate between public and private roads

Pilot Program



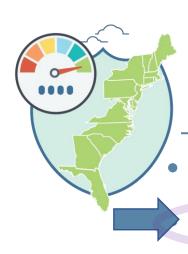
Washington RUC Pilot Program (STSFA grant)

Five years of studies (self-funded)

Pilot: Early 2018 – January 2019

- 2000 participants (volunteers)
- MBUF rate = 2.4¢ per mile
- Only miles driven in WA are charged (with location)
- Approaches Offered
 - Mileage permit (pre-select block of miles)
 - Odometer reading (photo or in person)
 - OBD-II plug-in (with & w/out location)
 - Smartphone (iPhone only)



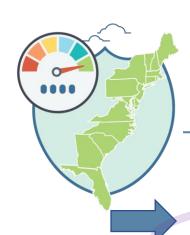


Hawaii RUC Demonstration (STSFA Grant)

Project just started (pilot will last 18 months)

Focus on manual reporting of mileage and subsequent invoicing

- Take advantage of HDOT's existing annual safety inspection process – includes odometer readings of all vehicles.
- Goal is to include 1.1 million vehicles in pilot
- Pilot will also include automated approaches (2000 vehicles)
- Issues to be addressed
 - Large percentage of electric vehicles (in the top 3 of states)
 - Large number of tourists and rental cars

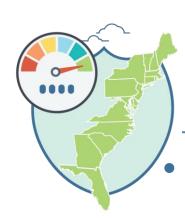


Utah (Self-funded)

Legislation passed to charge flat fees for alternative fuel vehicles

- MBUF may be used in lieu of flat fee
 - Enrollment starts Jan 1, 2020
 - Enroll with account manager using location-based plug-in device or in-vehicle telematics
 - Out of state miles exempted
 - Odometer "true-up" at annual registration
 - MBUF amount can not be greater than flat fee

| Year | Vehicle Type | | | | | |
|------|--------------|-----|------|----|----------|----|
| | Electric | | PHEV | | Gas | |
| | | | | | Hybrid | |
| 2019 | \$ | 60 | ጥ | 26 | ሳ | 10 |
| 2020 | \$ | 90 | \$ | 39 | \$ | 15 |
| 2021 | \$ | 120 | \$ | 52 | \$ | 20 |



Minnesota

First Pilot in 2011 (self-funded)

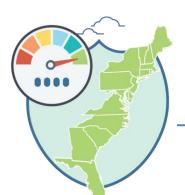
- 500 volunteers in greater Minneapolis St Paul
- Smartphone / app mounted in vehicle
- MBUF rate = 1 ¢ per mile; 3 ¢ per mile in urban area during peak



STSFA Grant – RUC Applied to "Shared Economy"

- Develop partnerships with Mobility as a Service (MaaS) providers
- Concept / design of a pilot demonstrating the collection of permile fees using telematics embedded in shared mobility vehicles





RUC West



- Voluntary coalition of 14 western state DOTs
- Pooled funding approach for investigating RUC issues (self-funded)
 - Privacy, urban-rural concerns, public understanding of RUC, etc.
- STSFA grant applications (Oregon the lead state)
 - Explore regional approaches to RUC





Oregon pioneers transportation funding



1919 First gasoline tax



First weight-mile tax for heavy vehicles



2015
First operational RUC
program

26



Oregon's Road User Fee Task Force

Created in 2001



Legislative Mandate

"Develop a design for revenue collection for Oregon's roads and highways that will replace the current system for revenue collection."



RUC Timeline

ORe GO

2001

Oregon forms Road User Fee Task Force

2006

Oregon launches first RUC pilot 2012

Second Oregon RUC pilot

2013

RUC West established

First RUC bill passes in Oregon

2015

Oregon launches fully-operational OReGO 2016

FAST Act funds first RUC projects

2017

FAST Act funds round 2 RUC projects

Oregon allows EVs option of RUC vs. fees

Utah implements RUC for alt fuel vehicles

Washington pilot with Oregon, Idaho and BC

2019

Oregon demonstrates local area RUC

RUC West implements California-Oregon pilot 20??

Fed calls for nationwide RUC pilot

Telematics implemented with RUC

States mandate RUC

Required Legislative Action



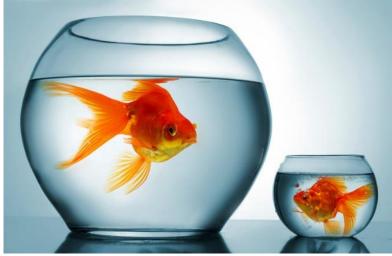
OReGO Update



Work on addressing public opinion issues

It's all about fairness







It discourages adoption of EVs.

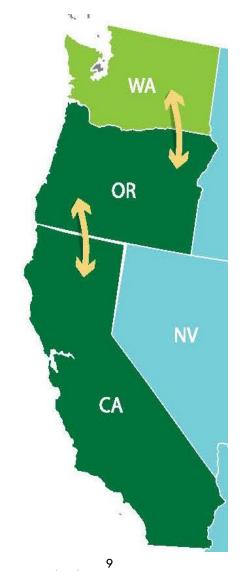
It's unfair!

It penalizes rural drivers.



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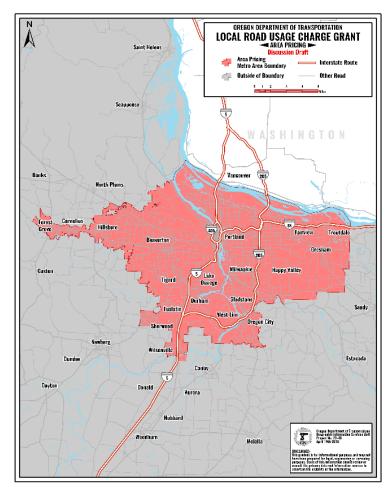
Demonstrate interoperability

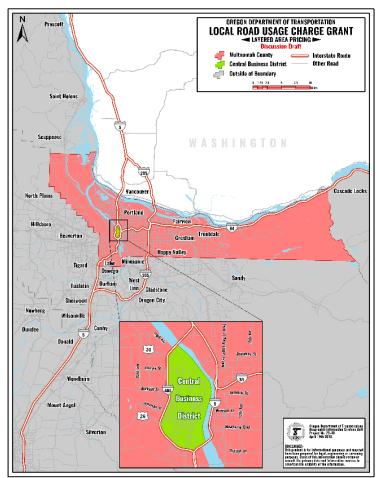


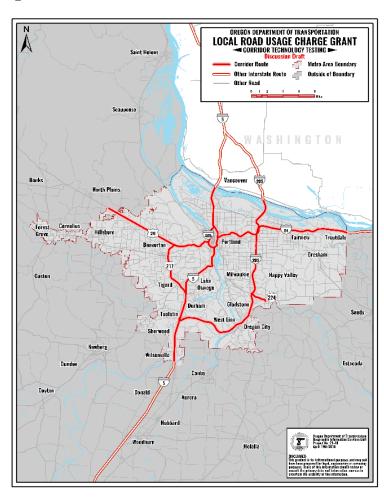




Test RUC as a possible local funding option







Static, variable rates

Layered options

Corridor options



Monitor future challenges

Business Disruption Rapidly changing technologies

Impacts on revenue



OReGO



Join the national discussion



- MBUFA developed framework for national pilot
- I-95 Corridor Coalition
 - Intersection of RUC and Tolling
 - Interoperability
- RUC West
 - Interoperability between states
 - Test clearinghouse requirements
- FAST Act recipients' projects



Develop a connected vehicle ecosystem



Transportation systems are becoming information systems

Roadways are influenced by digital messages, not just physical infrastructure

Can improve safety and mobility



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Leverage the private sector

- Provide latest technology solutions
- Administer accounts
- Provide interoperability
- Deliver an integrated user experience





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Overcome challenges

Vision adoption

Private sector partnerships

Evolving technology

Customer service delivery

Compliance models

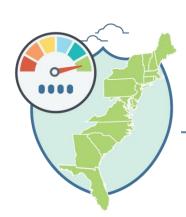
Strong legislative champion

Standards

Public awareness





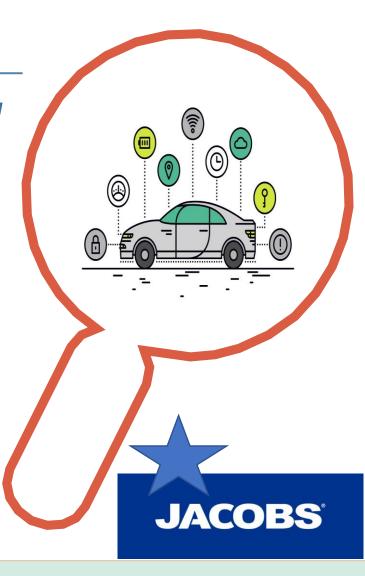


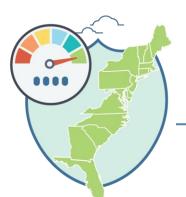
I-95 Coalition STSFA Grants

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

- 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?





PHASE 1 PILOT

May – June 2018



459,448
MILES DRIVEN

13
COALITION STATES WITH
RESIDENTS PARTICIPATING



Mileage Reporting Devices Selected:

76%

PLUG-IN DEVICE

WITH LOCATION



16%

PLUG-IN DEVICE

WITHOUT LOCATION



8%
ANDROID PHONE
WITH LOCATION

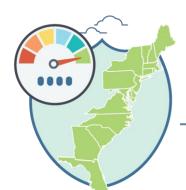




OUR KEY INSIGHTS



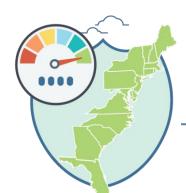
- 1. Dealing with out-of-state mileage is critical
- 2. It is feasible for MBUF to collect tolls
- 3. Mixed reactions to amenities
- 4. Increased awareness of what is paid in state fuel taxes
- 5. Despite privacy & security concerns, convenience and accuracy will likely take precedence



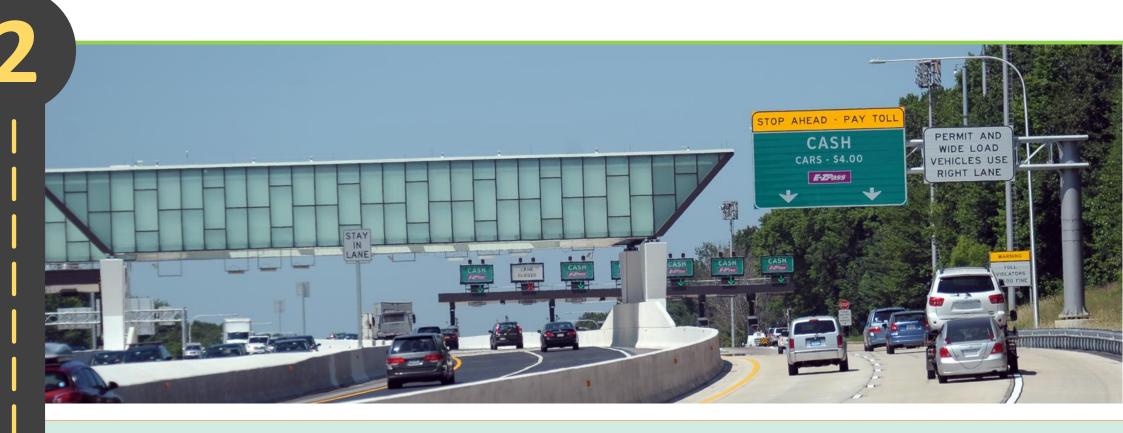
DEALING WITH OUT-OF-STATE MILEAGE IS CRITICAL

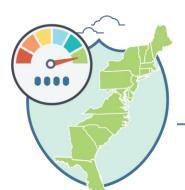


More that 20% of the miles driven during the Pilot were outside the state where the participant lived.



IT IS FEASIBLE FOR MBUF TO COLLECT TOLLS



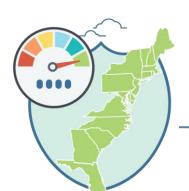


MIXED REVIEWS ON AMENITIES, BUT SOME SAW VALUE

3



Of the amenities offered, participants valued those for **vehicle and battery health** the most



PARTICIPANTS HAD AN INCREASED AWARENESS OF HOW MUCH THEY PAY IN STATE FUEL TAXES

4



of agreement that after the pilot they are more aware of the amount they pay in state fuel taxes



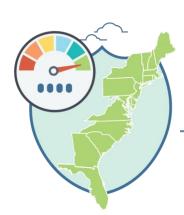
31% thought they actually paid more in state fuel taxes



DESPITE PRIVACY & SECURITY CONCERNS, CONVENIENCE & ACCURACY LIKELY TAKE PRECEDENCE

Rating "privacy of my personal data" as a high concern dropped from 57 to 30 percent when asked after the Pilot





Phase 2 & 3: More Exploration





- Further test the tolling concept
- Explore privacy concerns and equity across urban and rural areas
- NEW Partner: Transurban (VA)
 - Explore MBUF for congestion management
- NEW Partners: NJDOT and NCDOT
 - Focused pilot to begin exploration / education



- Education & Outreach
 - Surveys, Focus groups, interviews, video, briefing packets, website





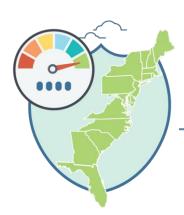
Phase 2 & 3: Multi-Sate Truck Pilots

- October 1st, 2018 March 31st, 2019
- EROAD is the technology partner
- Pilot purpose:
 - Explore feasibility of existing regulations and technology as a framework for a MBUF
 - Gain a better understanding of motor carriers needs and viewpoints.

Next Steps

- Compile insights from IFTA Auditors Workshop
- Interviews with motor carriers
- Motor Carrier Working Group

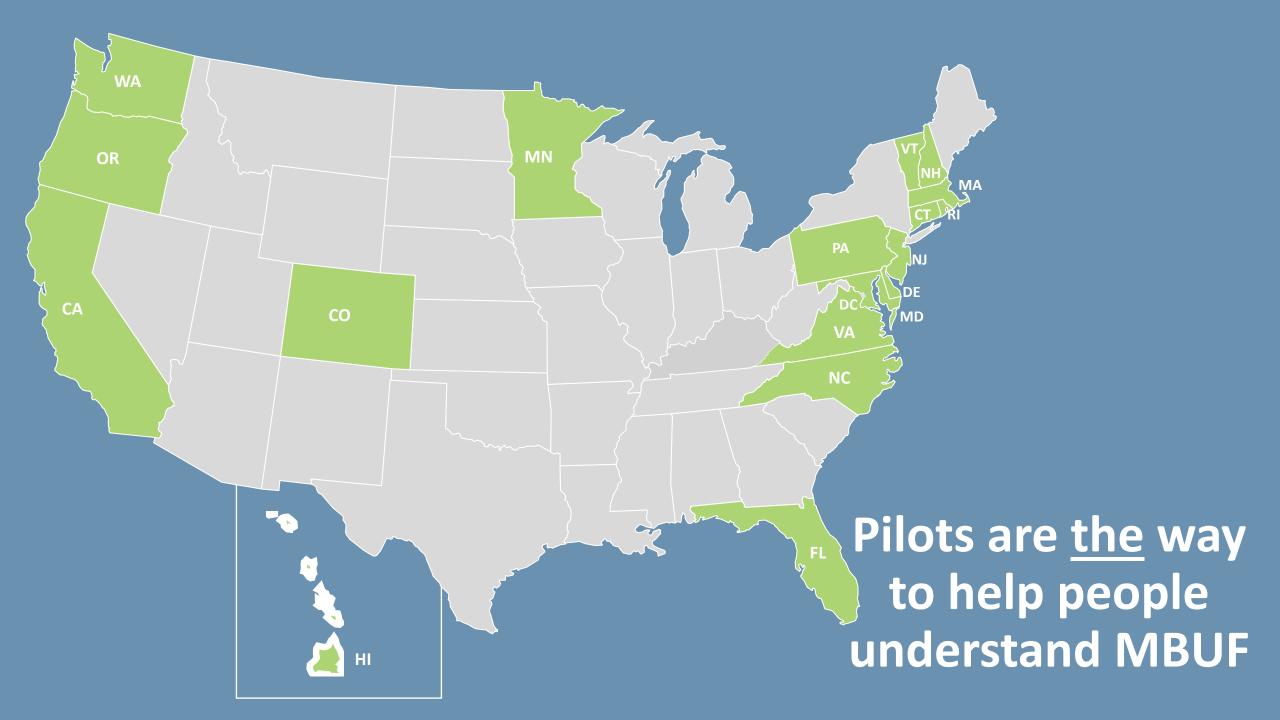




Important to Remember:

The I-95 Corridor Coalition members want to promote a better understanding of why investing in transportation is important, and why the current fuel tax does not provide a long-term and equitable solution in this regard. The Coalition, representing transportation agencies along the entire Eastern Seaboard, believes exploring the feasibility of a MBUF solution is important; for now, however, the Coalition is neutral if MBUF is the ultimate solution.











Communicating the need for transportation funding is an ongoing challenge



Questions?

Please submit via the "Questions" box and we will answer as many as possible

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Thank you!

Contact Information:

Garrett Eucalitto

Transportation Program Director National Governors Association geucalitto@nga.org

https://www.nga.org/bestpractices/ divisions/eie/

Trish Hendren, PhD

Executive Director I-95 Corridor Coalition phendren@i95coalition.org

https://www.i95coalitionmbuf.org/

Maureen Bock

Chief Innovation Officer
Oregon DOT
Maureen.BOCK@odot.state.or.us

http://www.myorego.org/