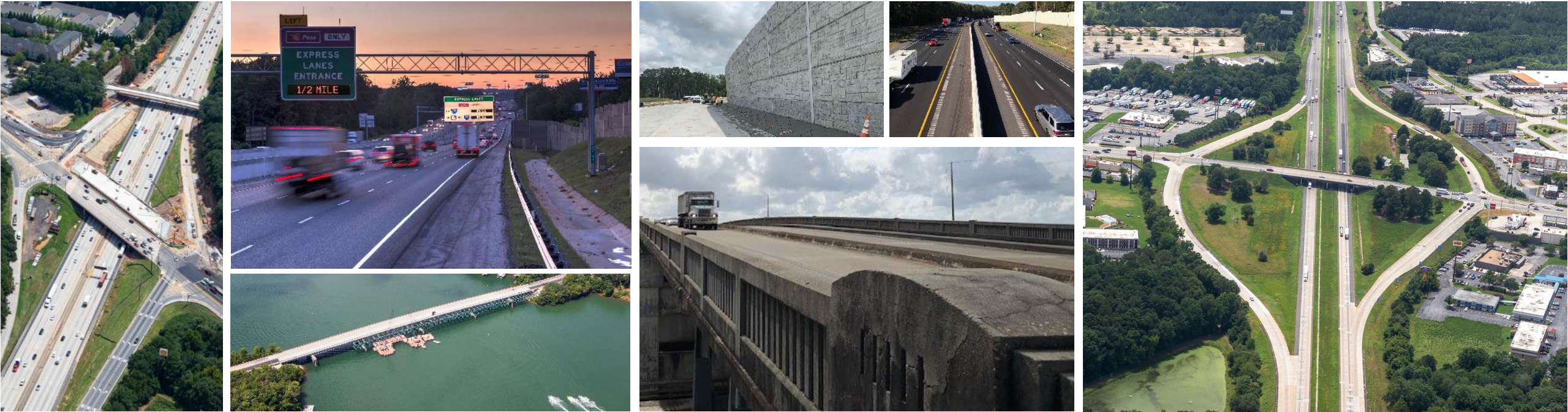


# Road User Charge/Vehicle Miles Traveled – An Overview

Georgia Joint Study Committee on the Electrification of Transportation



**Kary Witt**

Vice President, National Tolls and Road User Charging Practice

November 2, 2022

**HNTB**

# Why Are We Having This Conversation?



Motor fuel tax will no longer be a sustainable, long-term funding source for transportation



Raising fuel taxes and indexing to inflation will not be enough to maintain current conditions

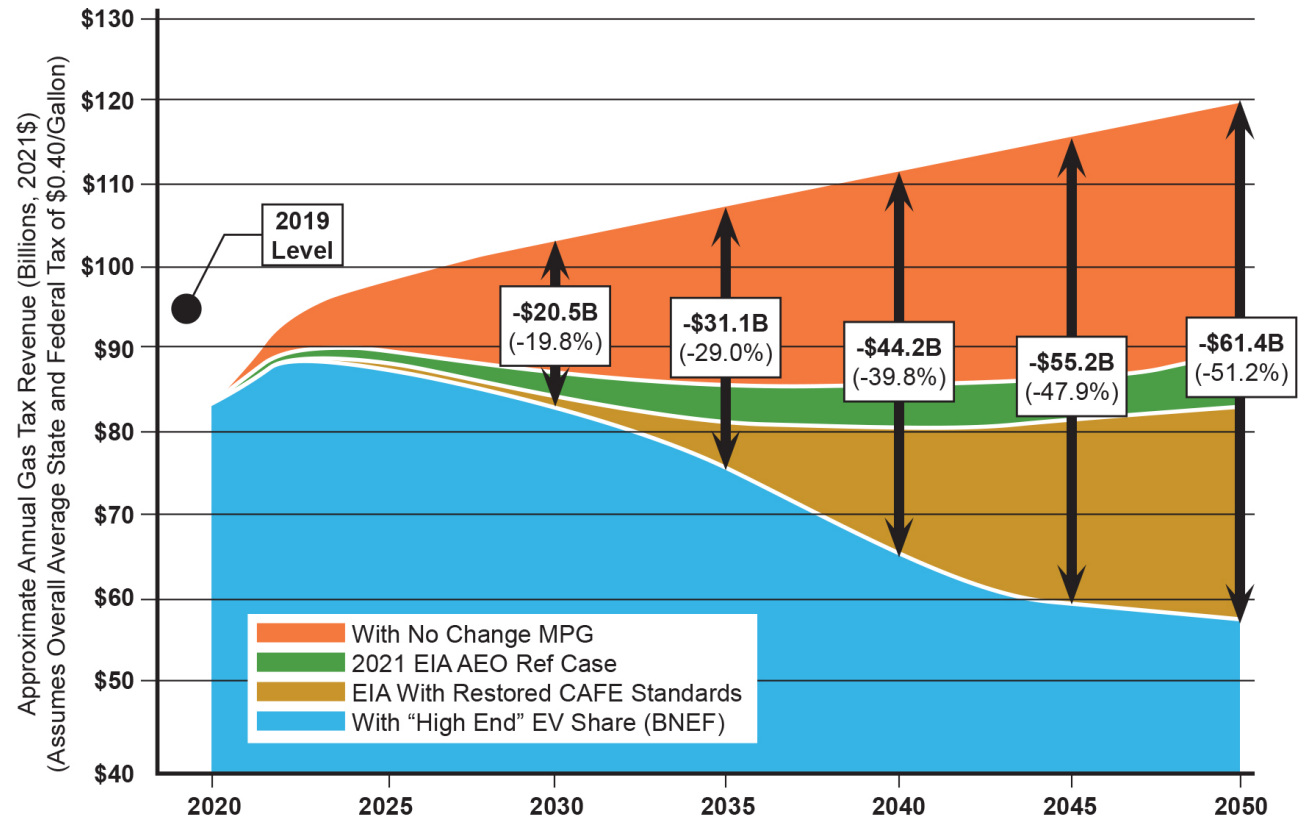


Feds have yet to move fast enough to help states deal with shortfalls



User-pays principal is viewed as more fair than other taxation schemes

## Estimated Combined State and Federal Fuel Tax



Source: US Energy Information Agency

# What is **MBUF/RUC/VMT**?



## Many names – Same concept

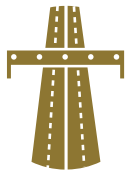
- Mileage Based User Fee (MBUF)
- Road User Charge (RUC)
- Vehicle Miles Traveled (VMT)
- Pay Per Mile (PPM)



## Users pay based on miles driven



## Replacement for Fuel Tax



## Fundamentally different from tolls

The screenshot displays the Oregon Department of Transportation (ODOT) website for the OReGO program. The page features the OReGO logo and navigation links: WHY IT MATTERS, HOW IT WORKS, GET STARTED, and CONNECT. The main headline reads "OReGO helps preserve and improve Oregon roads." Below this is a large image of a car on a road with a green banner that says "A fair and reliable system to keep Oregon connected" and "Roads are there for Oregonians. They take us to jobs, to visit friends." The page title is "Mileage-Based and Road-User Fees". A note states "This page is best viewed in Chrome, Edge or Firefox." The text explains that Mileage-Based User Fees (MBUF), also known as Road-User Fees (RUF), are a potential solution for funding transportation infrastructure. A blue box highlights a "PILOT PROJECT: The Eastern Transportation Coalition".

# Who is Considering **MBUF/RUC/VMT** ?

## **3** 3 Operational RUC Program

- Oregon
- Utah
- Virginia

## **20** Over 20 states have performed a study or pilot program

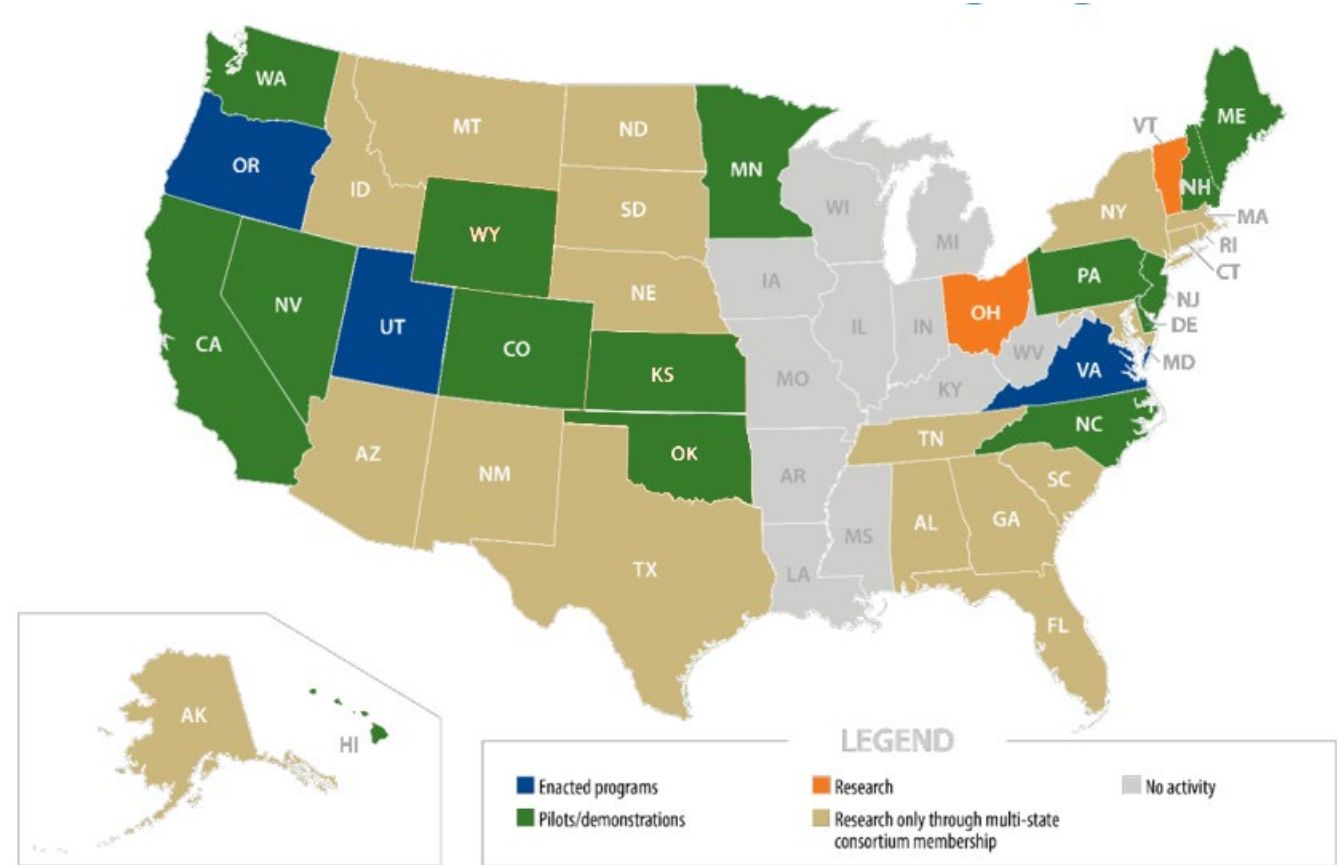
## Recent and ongoing activity

- Current STSFA Funded Pilots: KS, MN, OR, CA, DE, MO, NH, WY
- RUC America and Eastern Transportation Coalition
- State Funded Pilots: OK



## IIJA Funding for RUC/VMT

- State Pilots
- National Pilot



# How Does **MBUF/RUC/VMT** Work?

## Policy & Technology



Pricing strategies and technologies developed to meet objectives

## Data Collection



Mileage recorded and reported

## Account Management



Vehicle owner charged for miles driven

## Revenue Collection



Charges collected from vehicle owner and submitted to state

## Implementation



Sustainable funding for transportation



# Essential Functions of a **MBUF/RUC/VMT** System

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1. Identify subject vehicle and its owner/lessee



6. Enforce payment  
(Ensure that everyone pays)



2. Generate distance traveled data for subject vehicle



7. Collect payment –  
Issue receipt for payment



3. Report distance traveled data to Account Manger



8. Account Manager remit payment to State



4. Determine amount owed based on miles driven



9. Net revenues posted to highway fund



5. Provide invoice to owner/lessee

# Recording and Reporting Methods

Low-Tech

High-Tech

**Pre-Paid Time**



**Odometer**



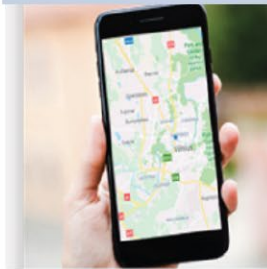
**Fuel Station**



**Plug-in On-Board Unit (OBU)**



**Mobile App**



**In-Vehicle Telematics**



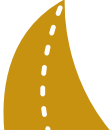







**Location and Time Agnostic**

**Less Privacy Concerns**

**Location and time Capability**

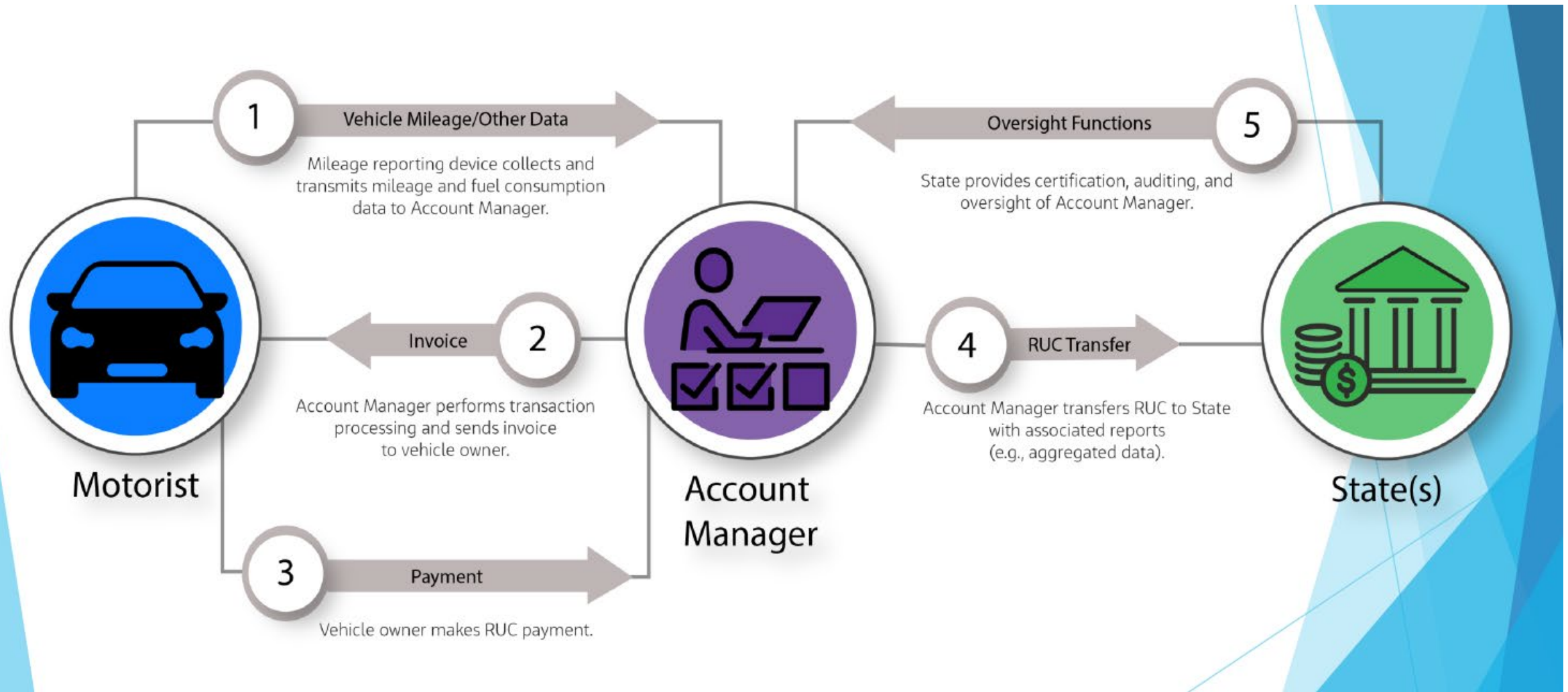
**More Policy Options**

# Pricing Approaches

	Flat Fee	Variable Fee
<b>Approaches</b>	<ul style="list-style-type: none"><li> Total Miles Traveled</li><li> Vehicle Class</li><li> Fuel Efficiency</li><li> Fuel Source</li></ul>	<ul style="list-style-type: none"><li> Zone-Based</li><li> Road Type</li><li> Time-of-Day</li><li> Congestion</li></ul>



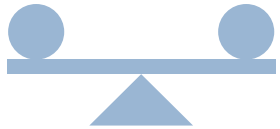
# OREGO Transaction Flow Diagram



# Advantages of MBUF/RUC/VMT



*I-85 Widening Phase 2, near Braselton*



## Stable

- Revenue unaffected by changing fuel type or MPG



## Fair

- Users pay based on miles driven
- Drive More, Pay More
- Drive Less, Pay Less
- Everyone pays their fair share



## Simple

- Easy to understand and explain



## Flexible - Other possible criteria

- Weight or class of vehicle
- Fuel economy of vehicle type
- Time of day
- Type or class of road
- Jurisdiction
- Level of congestion
- Air quality

# Concerns About **MBUF/RUC/VMT**



*Transform 285/400 Interchange Reconstruction, Sandy Springs*



## Privacy

- Locational data collection
- Personally Identifiable Information



## Cost to Collect

- Complex implementation and transition
- Ongoing administrative costs



## Social Equity and Fairness

- Low-income populations
- Urban vs rural populations

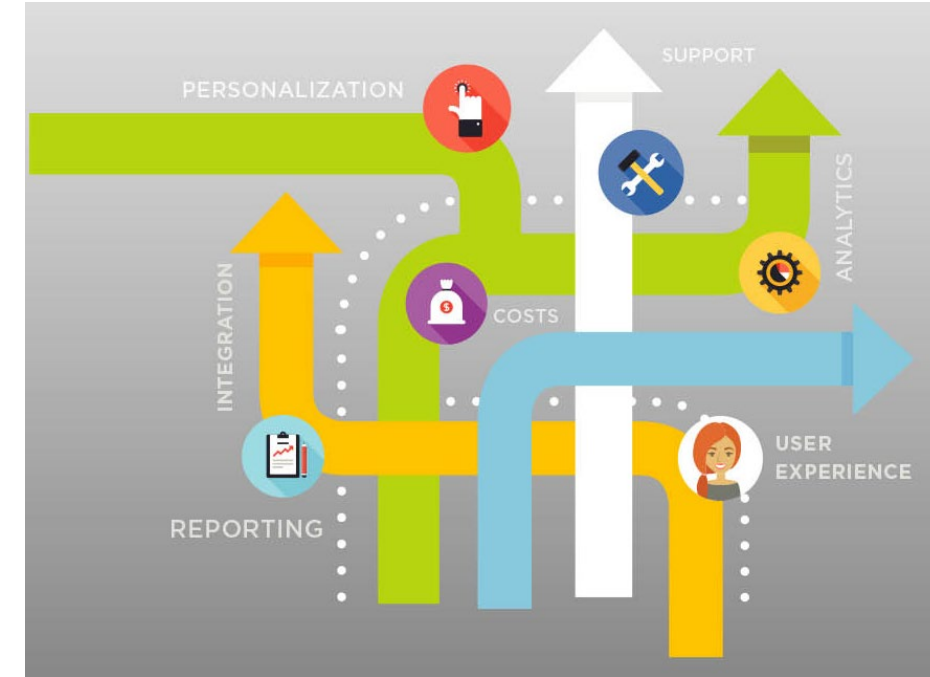


## Enforcement

- Make sure everyone pays
- Out of state drivers







# Key Considerations

- Policy Framework
- Equity and Fairness
- Privacy and Data Security
- Public Education
- Implementation and Operation Costs
- Scalable, Future-proof Solution
- Incentives for Adoption
- Revenue Use and Distribution
- Data Collection Method
- Fee Determination
- Enforcement
- Account Management and invoicing
- Technology to be Used
- Partnerships Needed
- Interstate Issues



# Lessons Learned So Far

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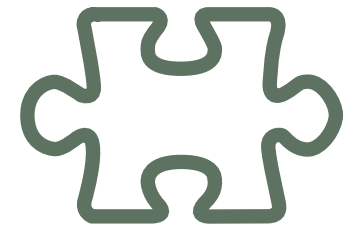
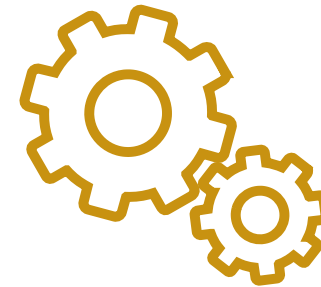
-  The Technology Works
-  Education is Key
-  User Pay Concept Resonates
-  Rural Drivers Often Fare Better
-  Real World Pilots Reduce Privacy Concerns
-  Keep It Simple – Complex Rate Structures Don't Work

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Oregon's Oregon  
HAS BEEN  
**active since 2010**

AND HAS  
**taken important steps**  
TO GET TO  
**where they are today**

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# MBUF/RUC/VMT Trends

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- ↗ Lower Cost of Collection
- ↗ Pay at Pump or Charging Station
- ↗ TNC's and Shared Mobility Services
- ↗ Use of Connected Vehicle Technologies
- ↗ Integrate with Tolling
- ↗ Integrate with Mileage based Insurance
- ↗ Explore Regional RUC/VMT Programs
- ↗ Truck Only Programs
- ↗ Regional and Interstate Interoperability and Reciprocity
- ↗ Congestion, Cordon and Corridor Pricing
- ↗ Blockchain and other Distributed ledger technologies

# Questions?

