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

**Power Sector Modernization**
- Energy Policy Institute
- Grid Modernization Retreats
- Global Energy Solutions Summit

**Support for New Governors**
- Boot Camps and Webinars
  - Energy Advisors
  - 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

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

**Transportation Modernization**
- Traffic Safety Learning Labs
- Electric Vehicle (EV) Regional Workshops
- Innovation Workshops
- Transportation Policy Institute

**Nuclear Weapons Waste**
- Federal Facilities Task Force Meeting
- Intergovernmental Meeting
- Governors Guide to Nuclear Weapons Waste Cleanup

**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.
THANK YOU TO OUR SUPPORTERS

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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
THE PROBLEM
Transportation Revenues are Declining

39%
Decrease in purchasing power of federal fuel tax since 1993

I-95 Corridor Coalition Mileage-Based User Fee Study
Transportation Fleet is Changing

<table>
<thead>
<tr>
<th>Efficiency</th>
<th>Average Monthly Gas Tax Paid</th>
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<tbody>
<tr>
<td>Low Efficiency</td>
<td>$58.20</td>
</tr>
<tr>
<td>Average Efficiency</td>
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<td>$16.63</td>
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<tr>
<td>Electric</td>
<td>$0.00</td>
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Graph showing the average monthly gas tax paid based on miles driven for different efficiency levels:
- Low Efficiency: $58.20
- Average Efficiency: $29.10
- High Efficiency: $16.63
- Electric: $0.00

I-95 Corridor Coalition Mileage-Based User Fee Study
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 “User Pays Principle”
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
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
What’s going on in STATE PILOTS?
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 user-fee structure
  - A solution to maintain the future long-term solvency of the Federal Highway Trust Fund

- Provides $95 million over 5 years

STSFA grant program

50-50 Match Required
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
- 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
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
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 per-mile 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’s Road Usage Charge Program
Oregon pioneers transportation funding

1919
First gasoline tax

1947
First weight-mile tax for heavy vehicles

2015
First operational RUC program
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.”
Work on addressing public opinion issues
It’s all about fairness

It discourages adoption of EVs.

It’s unfair!

It penalizes rural drivers.
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
Transportation systems are becoming information systems.

Roadways are influenced by digital messages, not just physical infrastructure.

Can improve safety and mobility.

Develop a connected vehicle ecosystem.
Leverage the private sector

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

**Purpose:** 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?

I-95 Corridor Coalition Mileage-Based User Fee Study
PHASE 1 PILOT
May – June 2018

155 PARTICIPANTS

459,448 MILES DRIVEN

13 COALITION STATES WITH RESIDENTS PARTICIPATING
PHASE 1 PILOT

Mileage Reporting Devices Selected:

- **76%** PLUG-IN DEVICE WITH LOCATION
- **16%** PLUG-IN DEVICE WITHOUT LOCATION
- **8%** ANDROID PHONE WITH LOCATION
Here’s what WE FOUND
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 than 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

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

65% had a high level 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.

I-95 Corridor Coalition Mileage-Based User Fee Study
DESPITE PRIVACY & SECURITY CONCERNS, CONVENIENCE & ACCURACY LIKELY TAKE PRECEDENCE

57% Rating “privacy of my personal data” as a high concern dropped from 57 to 30 percent when asked after the Pilot.
NEXT STEPS
Phase 2 & 3: More Exploration

- Hear from the public through an expanded multi-state Pilot with up to 1,000 volunteers
- 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-State 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.
A few COMMON THREADS
Pilots are the way to help people understand MBUF
Privacy and data security are a major concern to many
Fairness and equity issues need to be addressed
We have administrative hurdles to overcome.
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.
Thank you!

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