Today

- Why explore mileage-based user fees (MBUF)
- Why the coalition is engaged
- MBUF insights from Pennsylvania
WHY EXPLORE MILEAGE-BASED USER FEES (MBUF)?
Fuel tax revenue per mile driven declining.

57% Decrease in purchasing power of federal fuel tax since 1998
The transportation fleet is changing.

In Pennsylvania…

![Graph showing fuel tax based on efficiency and miles driven per month.](image)

### Calculations are based on state fuel tax rates for Pennsylvania.

<table>
<thead>
<tr>
<th>Efficiency Type</th>
<th>Fuel Tax per Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Efficiency (5-15 MPG)</td>
<td>$58.70</td>
</tr>
<tr>
<td>Average Efficiency (15-25 MPG)</td>
<td>$29.35</td>
</tr>
<tr>
<td>High Efficiency (25-45 MPG)</td>
<td>$16.77</td>
</tr>
<tr>
<td>Hybrid (45-55 MPG)</td>
<td>$11.74</td>
</tr>
<tr>
<td>Electric (Fuel Not Needed)</td>
<td>$0</td>
</tr>
</tbody>
</table>

Source: PennDOT PAthways
Though people value transportation, they don’t realize there’s a funding problem.

61% of Pennsylvanians rate state highway quality as good or excellent.

68% believe funding is increasing or staying the same.
We need a new & more sustainable way to fund transportation.
What is an MBUF?

Most states are looking at MBUF to replace the gas tax.

From this...

HOW MUCH GAS YOU USE

To this...

HOW MANY MILES YOU DRIVE
How MBUF (May) Work: Account Managers

1. Vehicle Mileage/Other Data
   Mileage reporting device collects and transmits mileage and fuel consumption data to Account Manager.

2. Invoice
   Account Manager performs transaction processing and sends invoice to vehicle owner.

3. Payment
   Vehicle owner makes MBUF payment.

4. MBUF Transfer
   Account Manager transfers MBUF to State with associated reports (e.g. aggregated data).

5. Oversight Functions
   State provides certification, auditing, and oversight of Account Manager.
How MBUF (May) Work: Mileage Reporting

- GPS and non-GPS options
- Flat fee
- Plug-in device
- In-vehicle telematics
- Odometer reading
WHY THE COALITION?
17 States + D.C. and 190 agencies

- 40% of the U.S. population
- 38% of the nation’s jobs
- 35% of U.S. vehicle miles traveled
- 21% of the U.S. road miles

Connecting for Solutions

About the Eastern Transportation Coalition
WORKING TOGETHER MAKES US STRONGER
More alike than we think.

We can learn from one another.

Adding our unique Eastern voice to the national conversation, while respecting differences within member states.
More alike than we think.
More alike than we think.
More alike than we think.

State College, Pennsylvania

Durham, North Carolina
WORKING TOGETHER

IMPLEMENTABLE SOLUTIONS
In 2016, an East Coast voice was needed.
STSFA Grant Program

Surface Transportation System Funding Alternatives Program

Section 6020 of the Fixing America's Surface Transportation 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
A Timeline Of Our Work:

Phase 1
- Launched first passenger vehicle pilot on East Coast (transportation stakeholders)

Phase 2
- Conducted nation's first multi-state truck pilot
- Expanded passenger vehicle pilots to include general public

Phase 3
- We are here.

Phase 4
- Began specialized passenger vehicle pilots in 5 states
- Launched first national truck pilot

Phase 5
- Launch Phase 4
- Launch Phase 5

2018
- Analysis and tech memos on M8UF and out-of-state mileage, tolling, equity, privacy, and administrative costs

2019
- Creation of Motor Carrier Working Group

2020
- Analysis of impact of M8UF on urban and rural households

2021
- Linkages with DMV transit/fleets
- In-vehicle telematics (or new technology)
- Impacts on bonding

2022
The Coalition is neutral on whether MBUF is the solution – but we believe real-world data is essential to finding an answer.
Phase 1: Starting the Conversation (2018)

Partner states
Participant states

459,448 miles
20% out of state
155 participants
13 states
Phase 2: Adding the Public’s Voice (2019)

- 67% of participants would support an M Buf.
- 13% of participants traveled out of state.
- 428 miles traveled by participants.
- 3,129,096 miles traveled in total.
- 889 participants.
- 42 states and Canada.
- 6 months.

Partner states:

States traveled by participants:
Phase 2 (2018-2019): Multistate Truck Pilot

- **1,430,000 miles**
- **55 vehicles**
- **27 states**
- **6 months**

The map shows states traveled by participants, including 1,430,000 miles driven by 55 vehicles in 27 states over 6 months, plus Canada.
Phase 3: Expanding the Exploration (2020-2021)

- States traveled by participants: 383 vehicles
- Partner states: 80%
- Out of state: 10%
- Miles: 1,446,131
- States: 27
- Months: 6
Phase 3 (2020-2021): National Truck Pilot

- 11,000,000 miles
- 221 vehicles
- 48 states
- 6 months

Our Participants
- Private + For Hire
- Haul Away/Tow Away
- Flatbed
- Auto Haulers
- Dump Trucks
- LTL

States traveled by participants
MBUF INSIGHTS FROM PENNSYLVANIA
Important takeaways for Pennsylvania:

1. “Pay for what you use” resonates.

2. People have privacy concerns about MBUF – until they experience it firsthand.

3. Rural drivers may fare better in an MBUF system than they do now.

4. Pilots provide useful information for future rate setting.

5. A transportation funding approach must address all road users.
1. “Pay for what you use” resonates.

62% of Pennsylvanians believe each driver paying their fair share is a good reason to support MBUF.
The link between “pay for what you use” and transportation funding is broken.

An MBUF approach restores this link.

Example: An MBUF can account for out-of-state mileage better than the fuel tax.
2. People have privacy concerns about MBUF – until they experience it firsthand.

71% of those very concerned about privacy dropped in 2019 Pre- and Post-Pilot Surveys (General Public)
Why did privacy concerns drop?

Transparency

Limited Personal Data

Option to Decline GPS

Data Protections
- Account manager could not sell data to 3rd-party entities
- Data destroyed 30 days after pilot
Safeguards so personal information isn’t shared with third parties

Regular audits for program administrators

Personal data is deleted or anonymized for protection
3. Rural drivers may fare better in an MBUF system than they do now.

<table>
<thead>
<tr>
<th>Geography</th>
<th>Annual Change Per Household under MBUF</th>
</tr>
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<tbody>
<tr>
<td>LM Urban</td>
<td>$10</td>
</tr>
<tr>
<td>LM Suburban</td>
<td>$13</td>
</tr>
<tr>
<td>Small Urban</td>
<td>$0</td>
</tr>
<tr>
<td>Mixed</td>
<td>-$16</td>
</tr>
<tr>
<td>Rural</td>
<td>-$34</td>
</tr>
<tr>
<td>Statewide</td>
<td>0.0</td>
</tr>
</tbody>
</table>
4. Pilots provide useful information for future rate setting.

<table>
<thead>
<tr>
<th>Revenue Neutral Approach</th>
<th>Other Approaches:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A vehicle operating at the national average of 22 MPG pays MBUF equal to amount paid for state fuel taxes.</td>
<td>Inclusion of Administrative Cost</td>
</tr>
<tr>
<td><strong>2018 Pilot</strong> 2.65 cents / mile</td>
<td>2019 Pilot: 3.18 cents / mile</td>
</tr>
<tr>
<td><strong>2020 Pilot</strong> 2.55 cents / mile</td>
<td>Tiered Approach Based on MPG</td>
</tr>
<tr>
<td></td>
<td>2020 Pilot</td>
</tr>
<tr>
<td></td>
<td>Equity</td>
</tr>
<tr>
<td></td>
<td>Future pilots</td>
</tr>
</tbody>
</table>
5. A transportation funding approach must address all road users.
America's best-selling vehicle is going electric.

**2022 Ford F-150 Lightning**

- Up to 300 miles / charge
- 10,000-pound towing capacity
- $40,000 MSRP
- $0 Fuel Tax

**PA GOAL:** Replace 25% of passenger car fleet by 2025

*John Roe, Car and Driver*
Trucks cannot simply be treated as big cars.

Pennsylvania 529,208 miles travelled in National Truck Pilot

HEAVY TRUCKS DRIVE

63K MILES ANNUALLY

PASSENGER VEHICLES DRIVE

13.5K MILES ANNUALLY
In 2016, an East Coast voice was needed.
2021 MBUF Map Looks very Different

Conducted/Conducting MBUF Pilot
Legislation for Voluntary MBUF Program
MBUF Studies through RUC
West Membership

MBUF Studies through the Eastern Transportation Coalition
Which path(s) will work?

- Oregon Approach - Volunteer (with limits on cars with poor fuel efficiency)
- Hawaii Approach - Annual Safety Inspection
- Partner with Insurance Companies
- New Zealand Approach - All diesel vehicles and trucks (regardless of fuel type)
- Virginia and Utah Approach - Opt-in MBUF instead of EV registration fees
- Mandate in new vehicles (via in-vehicle telematics)
- Congestion Management Approach
- California Approach - Pay MBUF at pump/charging station (in testing)
- Multi-State Clearinghouse to collect and redistribute funds to appropriate state

YOU ARE HERE

SUSTAINABLE TRANSPORTATION FUNDING
Questions?

www.tetcoalitionMBUF.org