

# VT ROAD USAGE CHARGE IMPLEMENTATION PLAN

Senate Transportation Committee

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# PRESENTATION

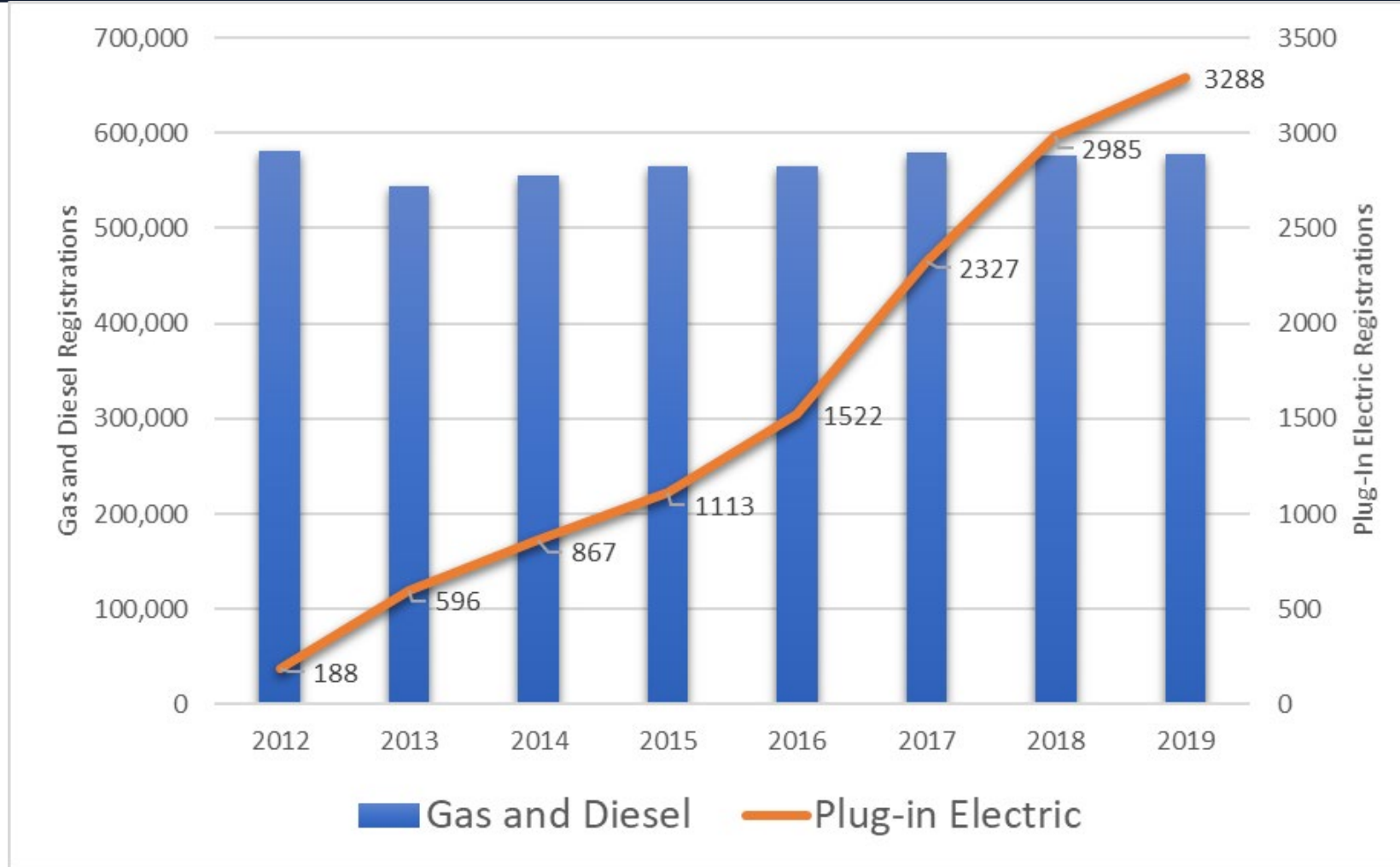


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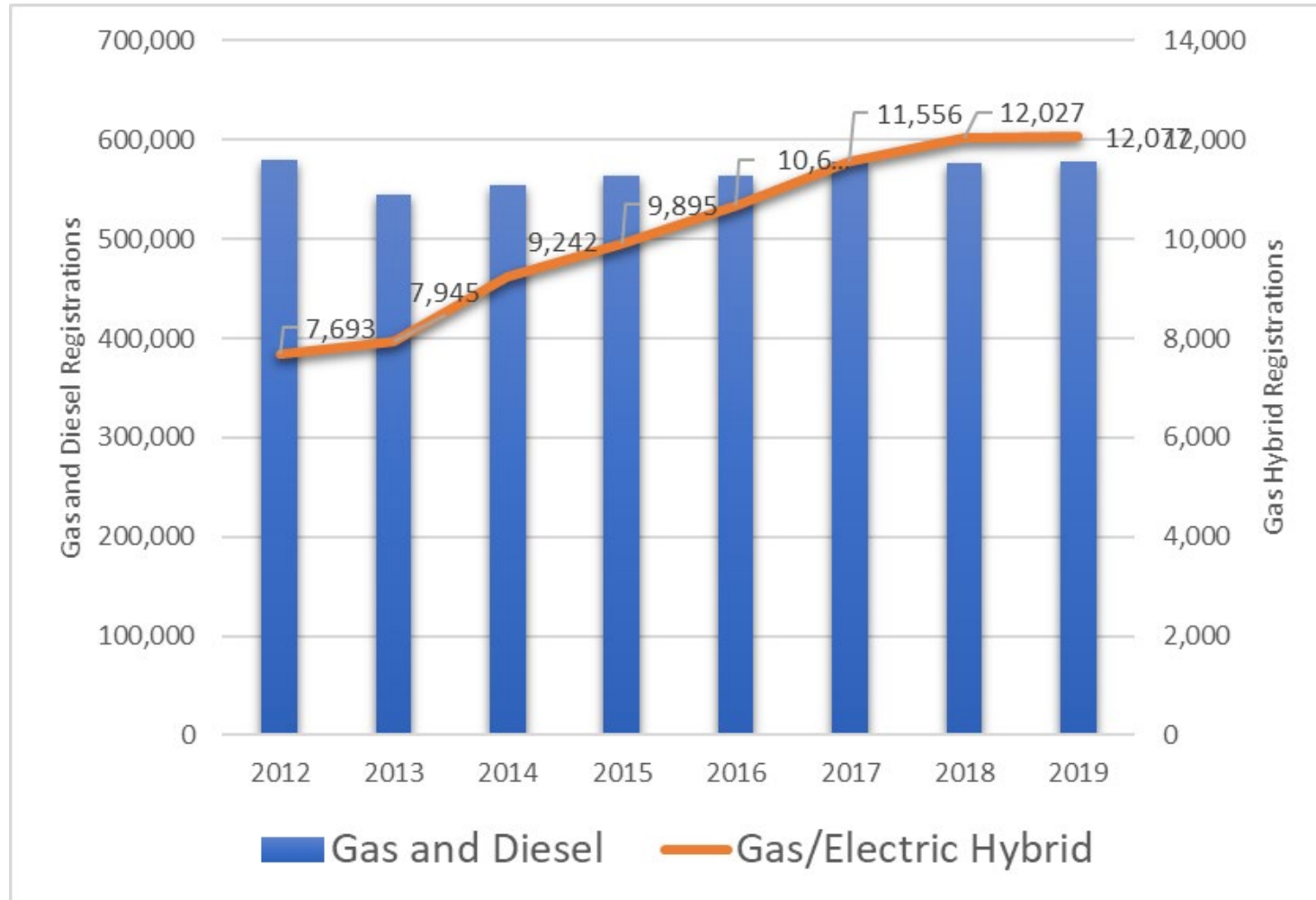


- Road Usage Charges Need
- VT Road Usage Charge Concept
- Implementation Plan Objectives
- Next Steps

# VT VEHICLE REGISTRATIONS: GAS/DIESEL AND PLUG-IN ELECTRIC



# VT VEHICLE REGISTRATIONS: GAS/DIESEL AND GAS HYBRID

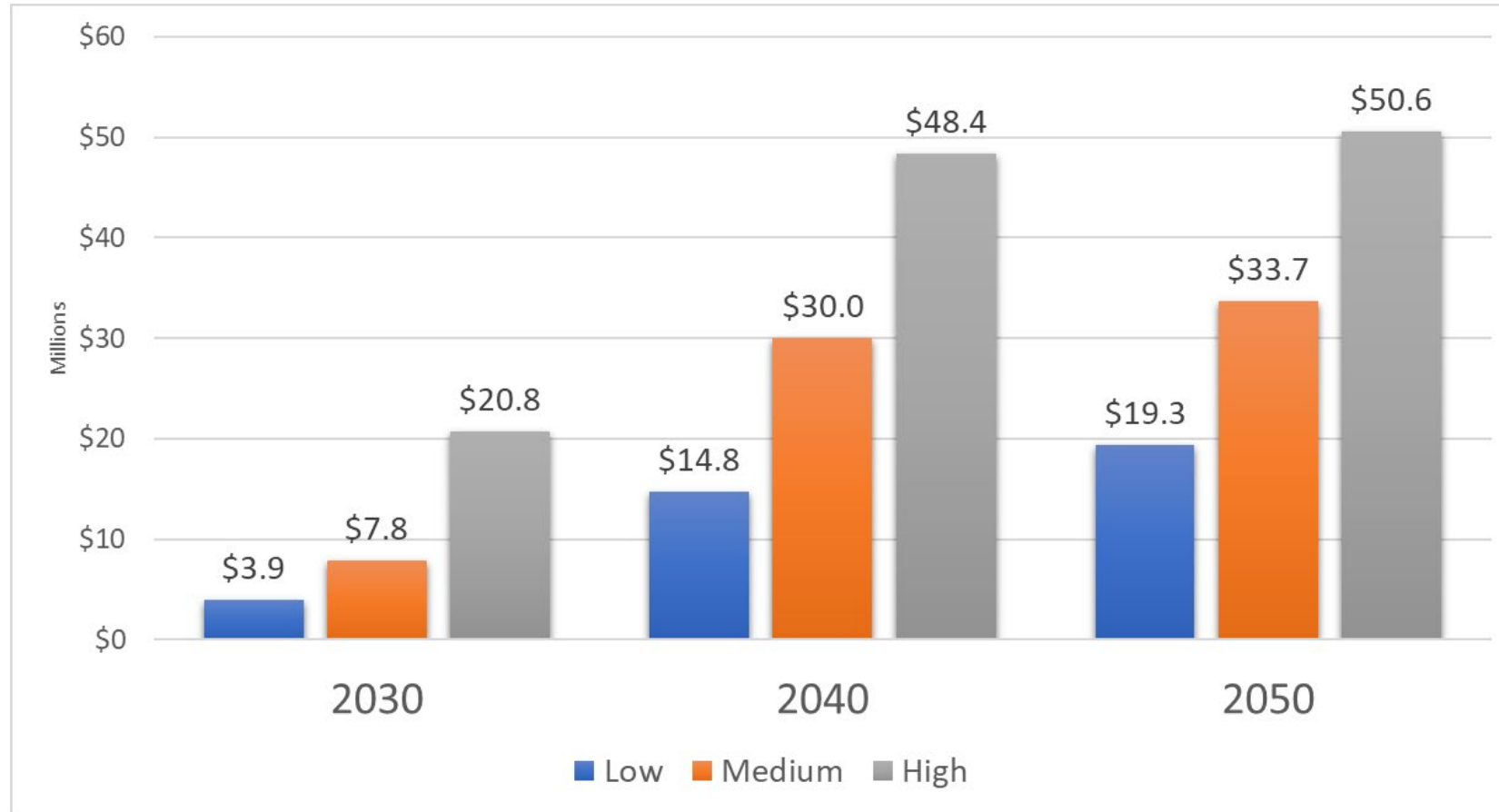


# AVOIDED GAS TAX IN 2019

Vehicle Type	Registered Vehicles (2019 Actual)	Avoided Gas Tax	
		<i>Per Vehicle</i>	<i>Sub-Total</i>
Battery Electric Vehicles	1,256	\$120 <sup>1</sup>	\$150,720
Plug-in Hybrid Electric	2,032	\$71 <sup>1</sup>	\$144,272
Gas-Electric Hybrid	12,077	\$58 <sup>2</sup>	\$700,466
		Total	\$995,458

1. Act 12: Section 28 Report (2013). A Study on Replacing Motor Fuel Tax Revenues Not Collected from Plug-In Electric Vehicles.
2. Average of other states per Utah Department of Transportation

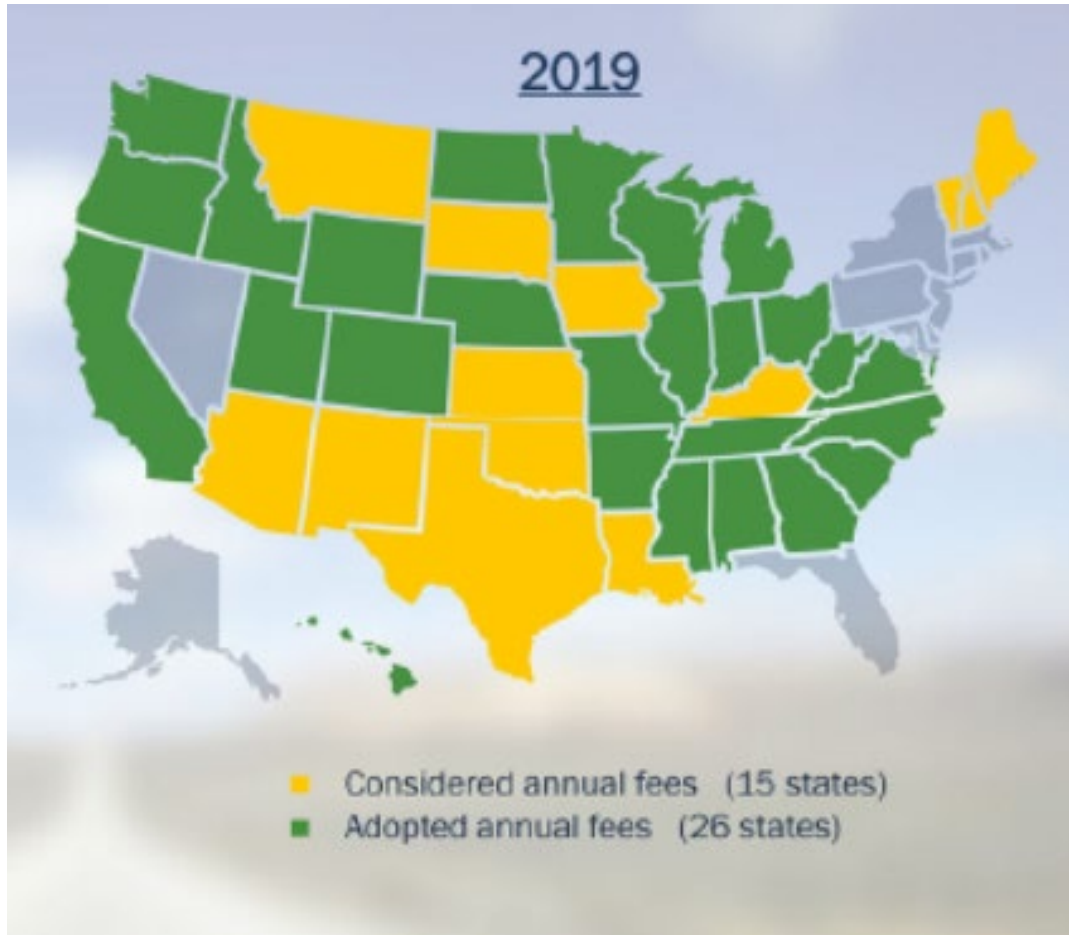
# AVOIDED GAS TAX FORECAST FOR EV ADOPTION SCENARIOS



# VT ROAD USAGE CHARGE CONCEPT

Applicability	Fee Mechanisms	Possible Eligible Vehicle Types
VT Registered Vehicles	<ul style="list-style-type: none"><li>• Flat Fee, <b>or</b></li><li>• Mileage Based User Fee<ul style="list-style-type: none"><li>• Without location</li><li>• With location</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Battery Electric</li><li>• Plug-in Electric Hybrid</li><li>• High efficiency vehicles</li></ul>
Out of State Vehicles	<ul style="list-style-type: none"><li>• Per kWh Transportation Fee at Public Charging Stations</li></ul>	<ul style="list-style-type: none"><li>• Battery Electric</li><li>• Plug-in Electric Hybrid</li></ul>

# FLAT FEE OPTION FOR VT REGISTERED VEHICLES



Vehicle Type	U.S. Range <sup>1</sup>	U.S. Average <sup>1</sup>	VT Estimates <sup>2</sup>
Battery Electric	\$50-\$225	\$127	\$120
Plug-in Electric Hybrid	\$30-\$200	\$85	\$71
Gas Hybrid	\$20-\$100	\$58	Not estimated

1. Courtesy of Utah Department of Transportation
2. Act 12: Section 28 Report (2013). A Study on Replacing Motor Fuel Tax Revenues Not Collected from Plug-In Electric Vehicles.



# WHAT IS A MILEAGE-BASED USER FEE

From this...



How much gas you use



To this...



How many miles you drive

Image Courtesy of The Eastern Transportation  
Coalition

# MILEAGE-BASED USER FEE PROCESS

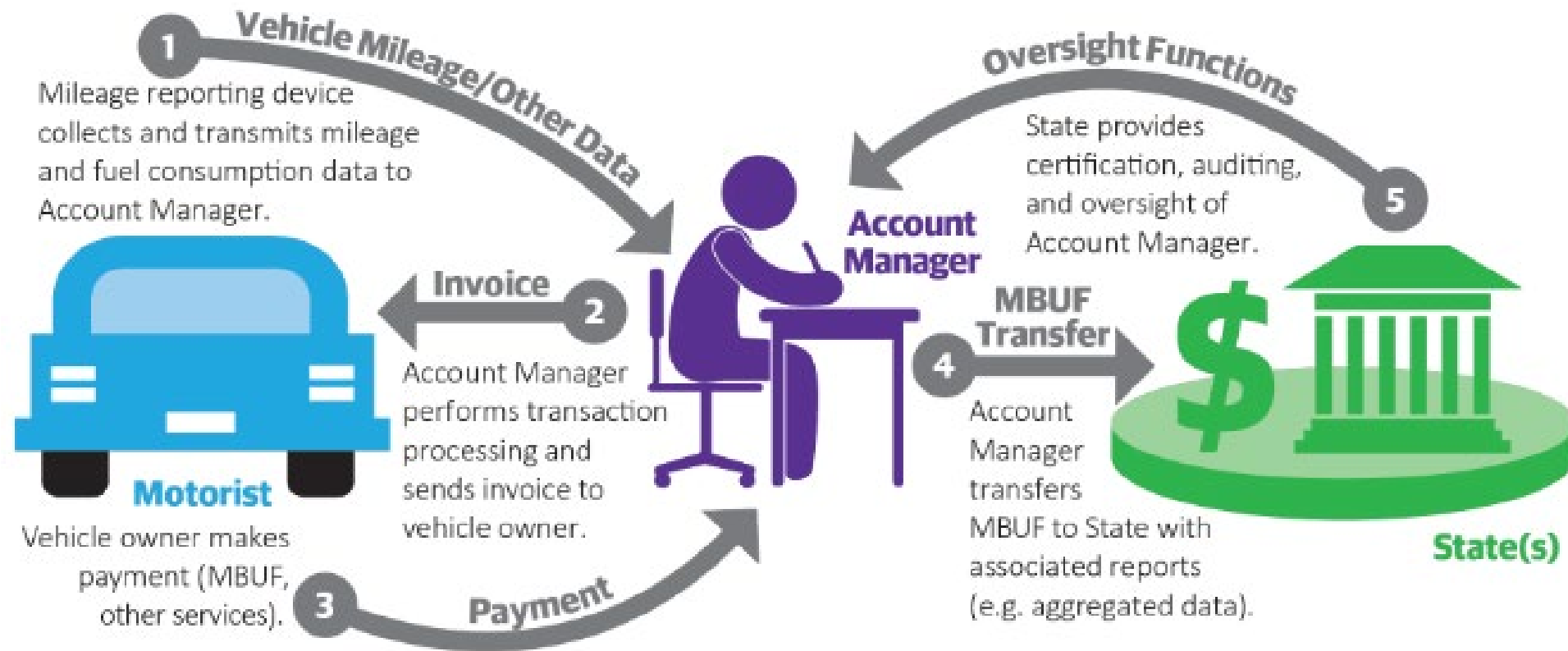


Image Courtesy of The Eastern Transportation Coalition

# MILEAGE COLLECTION METHODS

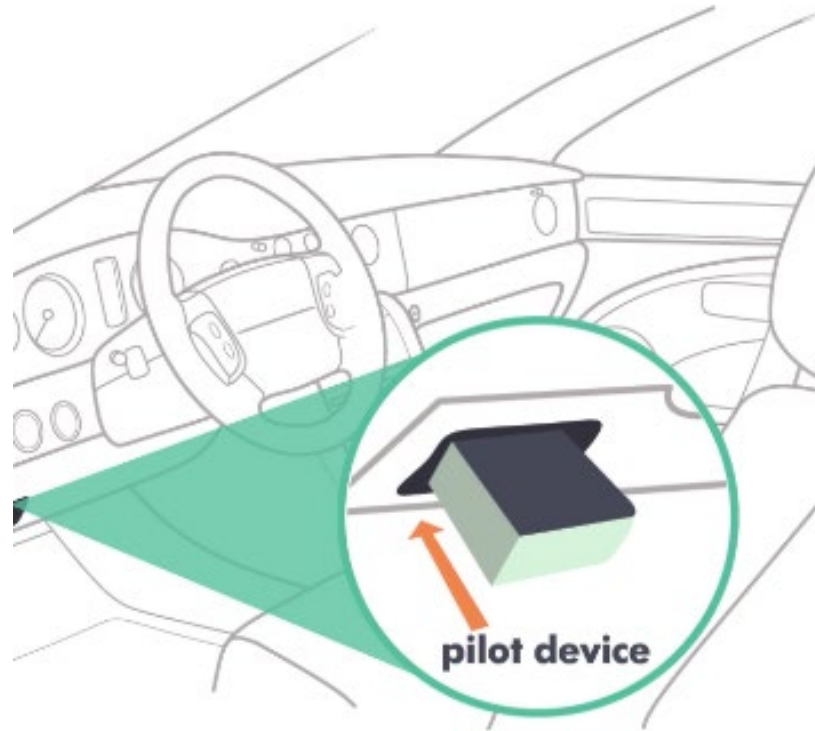


Image Courtesy of The Eastern Transportation Coalition



Manual Odometer Reading



Odometer Image Capture



Plug-in Device With or Without GPS



Automaker Telematics



Smart Phone Ap



# MILEAGE-BASED USER FEE ISSUES



Administrative Costs



Public Acceptance



Organization



Compliance and Enforcement



Rate Setting



Interoperability



Equity



Scalability



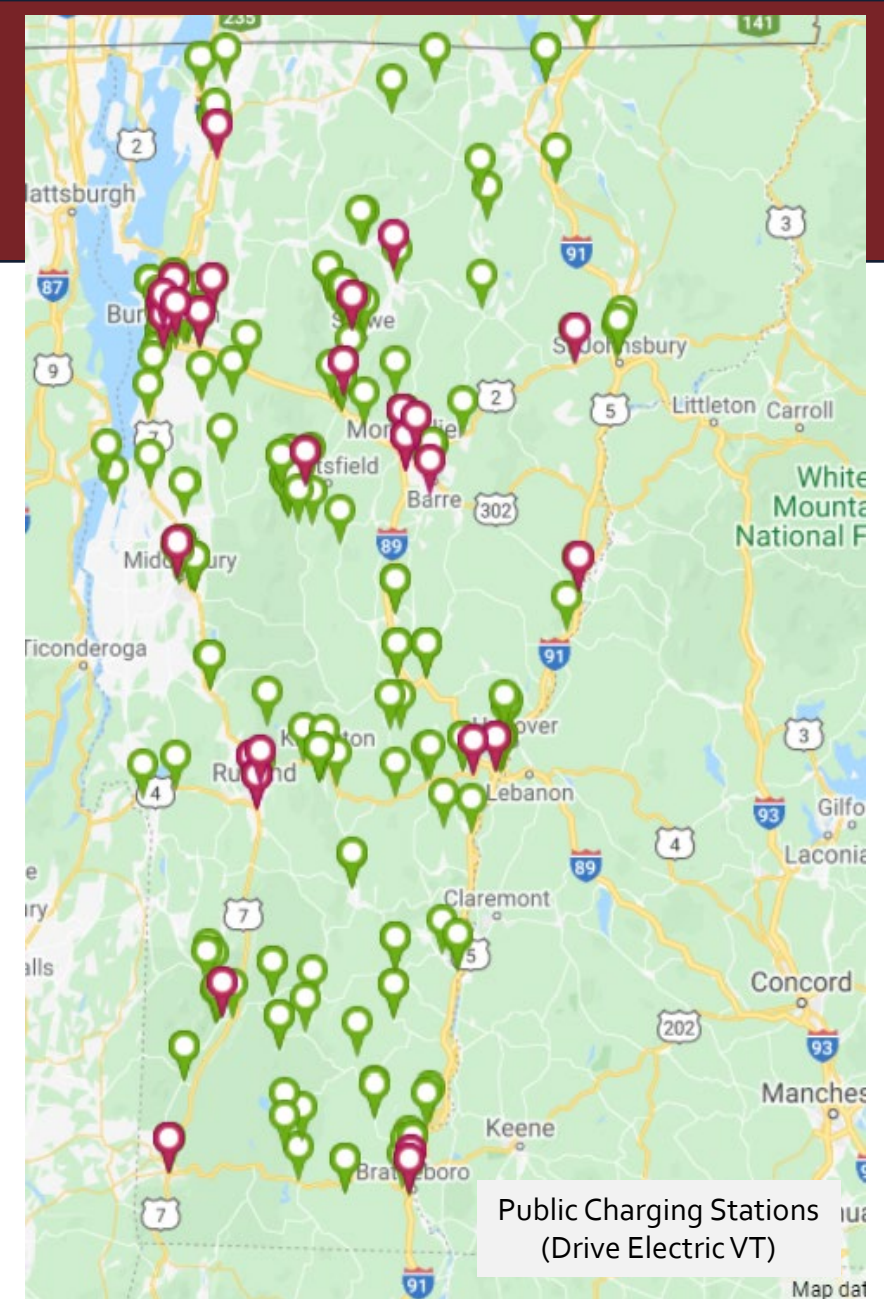
Privacy & Data Security



Technology Evolution

# PER kWh TRANSPORTATION FEE

- Fee assessed at Public Charging Stations
- Captures out of state EVs
  - 25% of 2019 in-state gas sales were to non-Vermonters
- Issues
  - Exempting VT EVs from the fee
  - Business process for fee collection and transfer to the state
  - Role of Utilities
  - PUC Role
  - Charging station owner role
  - Reporting requirements



# RUC IMPLEMENTATION PLAN OBJECTIVES

- Determine the rates for the Flat Fee, Mileage-Based User Fee and Per kWh Transportation Fee components of the VT RUC System
- Define the VT RUC System and how it would operate.
- Determine the organizational structure and staffing required
- Determine whether a RUC System is operationally feasible and financially sustainable in Vermont
- Develop an Implementation Road Map
- Develop a Communication Plan
- Determine if the VT RUC System is ready to be implemented or if the RUC system, or some component of it, should be piloted.

# NEXT STEPS

