# FAIR SHARE TAXES DRIVEN AWAY BY ELECTRIC VEHICLES

Florida

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Piyush Patel Chairman of the Board of Trustees Dominic M. Calabro President & Chief Executive Officer

## DEAR FELLOW TAXPAYER,

E ach year, the Legislature appropriates billions of taxpayer dollars for the maintenance and operation of transportation infrastructure. In FY 2024-25, the State of Florida appropriated \$14 billion to its Department of Transportation Work Program which, among other projects, funded 140 miles of new highway lanes, 3,128 miles of lane resurfacing, and 15 bridge replacements. Such an investment is critical to protecting the safety of drivers and facilitating the efficient transport of goods and services.

The Florida Department of Transportation (FDOT) is primarily funded by dedicated revenue sources from transportation activities, including vehicle registration fees and motor fuel taxes. In other words, the development of transportation infrastructure is financed by the taxpayers who use it most. Not only does this funding structure embody a sense of fairness, but—traditionally—it also increases the availability of funding in proportion to growing demand. Recent technological advancements, however, reveal limitations to the current funding model. Electric vehicles (EVs) and plugin hybrid vehicles (PHEVs) are increasing in popularity, causing greater road use without greater revenue from fuel taxes. This trend is expected to continue, calling into question how best to fund FDOT in these changing times.

Florida TaxWatch undertakes this independent research project to better understand the impacts of increased market share of EVs and PHEVs on motor fuel revenues and to consider the strategies used by other states to address this problem. We look forward to discussing the findings of this report with policymakers during the 2025 legislative session and beyond.

Respectfully,

Dominie M. Calabro

Dominic M. Calabro President & CEO

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## **Key Findings**

#### EVs and PHEVs are a growing share of the car market.

- In 2023, Florida had nearly 255,000 registered EVs and 57,000 registered PHEVs, which is 2,097 percent (EVs) and 467 percent (PHEVs) greater than the number of registrations in 2016.
- In response to increases in affordability and quality, some projections expect EVs will comprise 40 to 50 percent of the total passenger car sales in the United States by 2030.

## EVs and PHEVs charges do not contribute taxes to the State Transportation Trust Fund (STTF).

- For gas-powered vehicles, a gallon of gas contributes 27.2 cents to the STTF. Although EVs and PHEVs pay sales tax at public charging stations, they do not pay any taxes or fees that are dedicated to the STTF.
- According to FDOT, when factoring all transportation revenue streams, every one percent increase in EV market adoption could reduce the STTF revenue by 0.5 percent.
- In the absence of policy changes, revenue for the STTF may fall short of projected revenues by up to 20 percent in 2040, due to EV and PHEV's increasing share of the total car market.
- Based on most recent data, Florida TaxWatch estimates that EV usage has already reduced the motor fuel tax revenue between \$46.4 million to \$78.3 million, annually.

Across the nation, states are experimenting with new policies to help recoup lost tax revenue for their transportation programs.

- Thirty-nine states impose additional or higher registration fees or license taxes on EVs.
- At least seven states levy a tax at EV charging stations to support transportation funds.
- Four states launched Vehicle Miles-Based Taxes (VMT) programs, collecting revenue based on miles driven rather than fuel consumed.

## Florida policymakers have yet to implement a policy to address the loss of the STTF revenue from use of EVs and PHEVs.

- Every session since 2020, Florida legislators have considered imposing higher registration fees on EVs and PHEVs. None of the bills made it to the floor.
- In 2025, four bills filed with the intention of redistributing a portion of sales tax revenue collected at public charging stations to the STTF. Although the bill would help recoup some of the missing revenue, it fails to recapture the "fair share" sentiment once embodied by motor fuel taxes.

#### Recommendations

- Implement legislation (SB 462 or substantially similar) that redistributes the sales tax from EV charges with a sunset date, providing the STTF with additional funds until a sustainable, long-term solution is developed.
- Analyze the fiscal impact of imposing registration fees and EV taxes on charging stations, determining if a combined approach is possible.
- Host workshops with automakers to determine what data is available and how it can be used to create a fairer tax code.

### **INTRODUCTION**

Initially levied in 1921, Florida's Highway Fuel Taxes are the oldest, continuous source of dedicated transportation revenues.<sup>1</sup> Levied on motor fuels, the Highway Fuel Tax provides funding to the State Transportation Trust Fund (STTF), which is used to finance the FDOT Five-Year Work Program. In this way, residents and tourists alike contribute their fair share of support to the state's transportation infrastructure each time they pay for fuel at the pump—but what about the drivers who do not use motor fuels?

Electric vehicles (EVs)<sup>2</sup> and plug-in hybrid electric vehicles (PHEVs) can cruise the state's highway system without paying the Highway Fuel Tax. Although the purchase of electricity collects a sales tax, it does not directly contribute to the STTF. As EVs and PHEVs continue to grow in popularity, policymakers should consider how their market share affects the state's ability to invest in transportation infrastructure.

Florida TaxWatch undertakes this independent research project to: better understand the impacts of increased market share of EVs and PHEVs on motor fuel revenues; identify and analyze strategies used by other states to address this problem; and provide lawmakers with a list of policy options for consideration during the 2025 legislative session and beyond.

## **Changing Nature of the Car Market**

Throughout the evolution of cars, entrepreneurs experimented with the development of EVs. At the start, EVs were powerful contenders in the market; the first car to break 60 miles per hour was powered by electricity. The interest in EVs fizzled, however, with the debut of the gas-powered Ford Model-T in 1908. More affordable and reliable than other cars of its time, the Ford Model-T took the greatest share of the market, encouraging investment in gas-powered cars for the rest of the century.<sup>3</sup>

Due to recent technological advancements, EVs have returned as competitors in the car market. Modern EVs can travel extended distances, with some traveling over 300 miles when fully charged. PHEVs can typically go 15-60 miles on battery alone, which is often sufficient for daily commutes. Among the 2024 models, the most fuel-efficient EV compact car (105 MPGe) more than doubled the efficiency of the most fuel-efficient gas-powered vehicle (50 MPG).<sup>4</sup>

Increased access to charging stations also contributes to the rising popularity of EVs and PHEVs. Nationwide, the number of public EV charging stations doubled from December 2020 to February 2024, totaling more than 61,000 stations.<sup>5</sup> There are 3,721 charging stations in Florida (Figure 1),<sup>6</sup> compared to 6,042 gas stations.<sup>7</sup> Most EV drivers (86.0 percent) have access to charging ports at home, and about two-thirds of drivers have access to EV charging stations at their place of work.<sup>8</sup>

<sup>1</sup> Florida Department of Transportation, Florida's Transportation Tax Sources: Primer, 2024.

<sup>2</sup> Throughout this report, the term "electric vehicles" refers to battery electric vehicles that only run on electricity.

<sup>3</sup> History, "Electric Vehicles Have Been Around Since the 19th Century: Timeline," retrieved from https://www.history.com/news/electric-vehicles-automobiles-timeline, accessed on February 5, 2025.

<sup>4</sup> Department of Energy, Fuel Economy Guide Model Year 2024, January 2025; Kelley Blue Book, 2024 BMW i5 Edrive 40 Sedan, retrieved from <a href="https://www.kbb.com/bmw/i4/2024/">https://www.kbb.com/bmw/i4/2024/</a>, accessed on February 17, February 25; Kelley Blue Book, 2024 Toyota Corolla Hybrid, retrieved <a href="https://www.kbb.com/bmw/i5/2024/edrive40-sedan-4d/">https://www.kbb.com/bmw/i4/2024/</a>, accessed on February 17, 2025; and Headquarter Toyota, "What is the MPG of the 2024 Toyota Corolla?" retrieved from <a href="https://www.headquartertoyota.com/new-toyota-corolla-fuel-economy.html#:~:text=The%202024%20Toyota%20Corolla3%20hybrid%20powertrain%20is%20even%20more%20efficient,highway%20and%20531.1%20">https://www.headquartertoyota.com/new-toyota-corolla-fuel-economy.html#:~:text=The%202024%20Toyota%20Corolla3%20hybrid%20powertrain%20is%20even%20more%20efficient,highway%20and%20531.1%20">https://www.headquartertoyota.com/new-toyota-corolla-fuel-economy.html#:~:text=The%202024%20Toyota%20Corolla3%20hybrid%20powertrain%20is%20even%20more%20efficient,highway%20and%20531.1%20">https://www.headquartertoyota.com/new-toyota-corolla-fuel-economy.html#:~:text=The%202024%20Toyota%20Corolla3%20hybrid%20powertrain%20is%20even%20more%20efficient,highway%20and%20531.1%20">https://www.headquartertoyota.com/new-toyota-corolla-fuel-economy.html#:~:text=The%202024%20Toyota%20Corolla3%20hybrid%20powertrain%20is%20even%20more%20efficient,highway%20and%20531.1%20">https://www.headquartertoyota.com/new-toyota-corolla-fuel-economy.html#:~:text=The%202024%20Toyota%20Hybrid%20powertrain%20is%20even%20more%20efficient,highway%20and%20531.1%20">https://www.headquartertoyota.com/new-toyota-corolla-fuel-economy.html#:~:text=The%202024%20Toyota%20Hybrid%20powertrain%20is%20even%20more%20efficient,highway%20and%20531.1%20">https://www.headquartertoyota.com/new-toyota-corolla-fuel-economy.html#:~:text=The%202024%20Toyota%20Hybrid%20powertrain%20is%20even%20more%20efficient,highway%20and%20531.1%20">https://www.headquartertoyota.co

<sup>5</sup> Pew Research Center, "Electric Vehicle Charging Infrastructure in the U.S.," May 2024.

<sup>6</sup> U.S. Department of Energy: Alternative Fuels Data Center, Electric Vehicle Charging Stations Locations, accessed February 14, 2025. Filtered for Level 2 and DC Fast chargers. Collectively, 11,399 charging ports are available at the stations.

<sup>7</sup> U.S. Energy Information Administration, Florida State Energy Profile, updated January 16, 2025.

<sup>8</sup> ChargeLab, Industry survey: 500 EV drivers on public charging, 2024.

FIGURE 1. EV CHARGING DISTRIBUTION ACROSS FLORIDA



Source: U.S. Department of Energy—Alternative Fuels Data Center, 2025.

Despite great advancements, EVs and PHEVs still have the same shortcomings revealed by the Ford Model-T over a century ago: they are more expensive and less reliable than gas-powered vehicles. In December 2024, the average transaction cost for an EV was \$55,544, while the average transaction for a gas-powered vehicle was \$49,740.<sup>9</sup> A review of vehicle reliability by *Consumer Reports* suggests EVs have 42 percent more problems<sup>10</sup> than gas-powered vehicles (down 79 percent from last year) and PHEVs have 70 percent more problems than gas-powered vehicles (down 146 percent from last year).<sup>11</sup>

Still, EVs and PHEVs will continue to advance. Research suggests the cost of EVs may quickly decline; in 2019, batteries cost approximately \$180 per kWh, but the cost is expected to fall as low as \$64 per kWh in 2030.<sup>12</sup> By 2045, EVs are expected to achieve up to 81 percent improvement in fuel economy and PHEVs are expected to achieve up to 96 percent improvement.<sup>13</sup> In response to increases in affordability and quality, some projections expect EVs will comprise 40 to 50 percent of the total passenger car sales in the United States by 2030.<sup>14</sup>

Already, Florida is witnessing significant growth in the registration of EVs and PHEVs (Figure 2). In 2023, Florida had nearly 255,000 registered EVs and 57,000 registered PHEVs. Between 2016 and 2023, EV registrations grew by 2,097 percent and PHEV registrations grew by 467 percent. During this same timeframe, the number of registrations for gasoline-powered cars grew by 15.8 percent.<sup>15</sup>

The growing use of EVs and PHEVs can also be monitored by charge use. Between 2020 and 2024, charge use increased by fivefold statewide (Figure 3). This increase aligns with national trends.

<sup>9</sup> Kelley Blue Book, "How Much Are Electric Cars?" retrieved from https://www.kbb.com/car-advice/how-much-electric-car-cost/, accessed on February 11, 2025.

<sup>10</sup> Problems includes issues with out-of-warranty engines, transmissions, EV batteries, and EV charging, but also smaller issues such as squeaky breaks or broken interior trim.

<sup>11</sup> Consumer Reports, "Who Makes the Most Reliable New Cars?" retrieved from <a href="https://www.consumerreports.org/cars/car-reliability-owner-satisfaction/who-makes-the-most-reliable-cars-a7824554938/">https://www.consumerreports.org/cars/car-reliability-owner-satisfaction/who-makes-the-most-reliable-cars-a7824554938/</a>, accessed on February 11, 2025. 12 Goldman Sachs, "Electric vehicle battery prices are expected to fall almost 50% by 2026," retrieved from <a href="https://www.goldmansachs.com/insights/articles/electric-vehicle-battery-prices-are-expected-to-fall-almost-50-per-cent-by-2025">https://www.goldmansachs.com/insights/articles/electric-vehicle-battery-prices-are-expected-to-fall-almost-50-per-cent-by-2025</a>, accessed on February 14, 2025.

<sup>13</sup> U.S. Department of Energy: Alternative Fuels Data Center, Electric Vehicle Research and Development, retrieved from https://afdc.energy.gov/fuels/electricity-research, accessed on February 6, 2024.

<sup>14</sup> U.S. Bureau of Labor Statistics, Beyond the Numbers—Charging into the future: the transition to electric vehicles, retrieved from <a href="https://www.bls.gov/opub/btn/volume-12/charging-into-the-future-the-transition-to-elec-">https://www.bls.gov/opub/btn/volume-12/charging-into-the-future-the-transition-to-elec-</a>

tric-vehicles.htm, accessed on February 5, 2025.

<sup>15</sup> U.S. Department of Energy: Alternative Fuels Data Center, Vehicle Registration Counts by State.

#### FIGURE 2. FLORIDA REGISTRATIONS OF ELECTRIC VEHICLES AND PLUG-IN ELECTRIC VEHICLES EXPERIENCED SIGNIFICANT GROWTH BETWEEN 2016 and 2023.





## **GAS TAX REVENUE**

In 2025, when Floridians pump fuel at a gas station, they pay at least 55.6 cents in taxes per gallon of gas (Figure 4).<sup>16</sup> Collectively, 27.2 cents are collected by taxes that support the STTF.

- The State Fuel Sales Tax, commonly referred to as the Highway Fuel Tax, collects 17.5 cents and contributes most of its revenue to the STTF;<sup>17</sup>
- The **State Comprehensive Enhanced Transportation System (SCETS)** Tax collects 9.7 cents and contributes most of its revenue to the STTF for use on projects within the county from which the funds were collected;<sup>18</sup>





U.S. Energy Information Administration; Estimated Power Monthly; Table D.1., D.2., and D.3.

- The **Constitutional Tax**, also known as the **Second Gas Tax**, collects two cents that are distributed to counties by the Florida Department of Revenue (DOR) based upon a formula contained in Article IX of the Florida Constitution;<sup>19</sup>
- The **County Tax** collects one cent that is distributed by the DOR to counties for transportation projects;<sup>20</sup> and
- The Municipal Tax is distributed to the Revenue Sharing Trust Fund for use by municipalities on local transportation projects<sup>21</sup>

- 18 §206.608 Fla. Stat. (2024).
- 19 §206.47 Fla. Stat. (2024).
- 20 §206.60 Fla. Stat. (2024).
- 21 §206.605 Fla. Stat. (2024).

<sup>16</sup> Florida Legislative Office of Economic and Demographic Research, "2025 Federal, State, and County Tax Rates on Motor Fuel and Diesel Fuel in Florida's Counties," 2025.

<sup>17 §206.41(1)(</sup>g) Fla. Stat. (2024) and §206.606(1)

#### FIGURE 4. Break Down of Motor Fuel Taxes by Levying Entity



Source: Florida Legislative Office of Economic and Demographic Research, "2025 Federal, State, and County Tax Rates on Motor Fuel and Diesel Fuel in Florida's Counties," 2025.

EV drivers still pay sales tax on electricity, but—unlike the taxes above the sales tax does not directly support the construction and maintenance of Florida's transportation infrastructure. In July 2021, FDOT released a report that highlighted the risk EVs pose to the STTF revenue. The report considers three scenarios:

- 1. In the **conservative scenario**, EV market adoption is slowed to about 10 percent of the market by 2040, due to limits placed by costs and slowed technological innovation. Amid conservative growth, projected revenues decrease by 5.6 percent through 2040.
- 2. In the **moderate scenario**, EV market share jumps to 20 percent by 2040, with the help of continued price decreases, technology improvements, and modest policy incentives. In the moderate growth scenario projected revenues decrease by 11.1 percent.

"When factoring all transportation revenue streams, for every one percent increase in EV market adoption, there could be 0.5 percent

Florida Department of Transportation,
EV Infrastructure Master Plan (2021)

3. In the **aggressive scenario**, rapid reductions in cost, rapid technological improvements, and extreme policy incentives open the way for EVs to hold 35 percent of the market. In the aggressive growth scenario, projected revenues decrease by 20.0 percent.<sup>22</sup>

The most recent Florida Legislative Office of Economic and Demographic Research (EDR) revenue estimating conference reduced the revenue projections for the Highway Fuel Tax and SCETS Tax over the next five years. Citing increases in technological advancements in fuel efficiency and changing consumption patterns of motor fuel, among other factors, EDR decreased the combined projected revenue from both taxes by \$89.7 million.<sup>23</sup>

<sup>22</sup> Florida Department of Transportation, EV Infrastructure Master Plan, July 2021.

<sup>23</sup> Florida Legislative Office of Economic and Demographic Research, Revenue Estimating Conference Transportation Revenues Executive Summary, August 2024.

#### **ESTIMATING ANNUAL LOSS**

To estimate the annual loss of motor fuel tax dollars, Florida TaxWatch considers two approaches:

- 1. Vehicle Registration: In 2023, Florida had nearly 255,000 registered EVs.<sup>24</sup> The average driver in Florida travels 13,807 miles per year.<sup>25</sup> Multiplying the number of registered EVs by the average miles traveled per driver, and assuming the EV was each driver's primary car, the EVs would have traveled 3,519,100,546 miles, collectively.<sup>26</sup> To travel the same distance using a gas-powered vehicle (averaging 25 MPG),<sup>27</sup> the drivers would need to purchase 140 million gallons of gas.<sup>28</sup> Purchasing 140 million gallons of gas would generate \$78.3 million in motor fuel tax revenue, \$38.3 million of which would have been collected by taxes that contribute to the STTF.<sup>29</sup>
- 2. Annual Charges: The U.S. Energy Information Administration estimated Florida's light-duty EV and PHEV drivers consumed 752.3 million kWh of energy in 2024.<sup>30</sup> Assuming the EVs and PHEVs traveled at 93 MPGe,<sup>31</sup> 752.3 million kWh powers 2.1 billion miles.<sup>32</sup> To travel the same distance using a gas-powered vehicle (averaging 25 MPG),<sup>33</sup> the drivers would need to purchase 83.4 million gallons of gas.<sup>34</sup> Purchasing 83.4 million gallons of gas would generate \$46.4 million in motor fuel tax revenue, \$22.5 million of which would have been collected by taxes that contribute to the STTF.<sup>35</sup>

Taking into account both estimates, Florida TaxWatch estimates the annual loss of motor fuel taxes from current EV and PHEV use ranges from \$46.4 million to \$78.3 million (Table 1).<sup>36</sup>

#### Table 1. Based on Most Recent Data, Florida Stands to Lose \$46 Million to \$78 Million in Motor Fuel Taxes Amid Rising Popularity of EVs and PHEVs

Tax	Cents Collected Per Gallon	Estimated Loss Based on Vehicle Registration	Estimated Loss Based on Annual Charge
Federal Excise Tax	18.4	\$25,900,580	\$15,344,141
Highway Fuel Sales Tax	17.5	\$24,633,704	\$14,593,612
SCETS Tax	9.7	\$13,654,110	\$8,089,031
Constitutional Tax	2	\$2,815,280	\$1,667,841
County Tax	1	\$1,407,640	\$833,921
Municipal Tax	1	\$1,407,640	\$833,921
Minimum Local Option Tax	6	\$8,445,841	\$5,003,524
Total	55.6	\$78,264,796	\$46,365,990
This calculation is based on data from the U.S. Department of Energy, U.S. Energy Information Administration, and Kelley Blue Book.			

<sup>24</sup> U.S. Department of Energy: Alternative Fuels Data Center, Vehicle Registration Counts by State.

<sup>25</sup> Kelley Blue Book, "Average Miles Driven Per Year: Why It Is Important," retrieved from https://www.kbb.com/car-advice/average-miles-driven-per-year/, accessed on March 6, 2025.

<sup>26 254,878</sup> registrations X 13,807 miles per registration = 3,519,100,546 miles. Note, PHEV is not considered in this estimate due to uncertainty of how frequently PHEV drivers choose to use electricity instead of gas to operate their vehicles. 27 U.S. Department of Energy: Alternative Fuels Data Center, Fuel Economy and Consumption of Light-Duty Vehicles, retrieved from <a href="https://afdc.energy.gov/data/10313">https://afdc.energy.gov/data/10313</a>, accessed on February 18, 2024.

<sup>283,519,100,546</sup> miles  $\div 25$  miles per gallon = 140 million gallons.

<sup>29 56.6</sup> cents of tax X 140 million gallons = \$78.3 million. Lowest tax rate applied to provide conservative estimate.

<sup>30</sup> U.S. Energy Information Administration, Electric Power Monthly Table D.2. Estimated State and Regional Consumption of Electricity by Light-Duty Electric Vehicles Through November 2024 and 2023, January 2025. This data point references January 2024 through December 2024.

<sup>31</sup> U.S. Department of Energy, Fuel Economy Guide Model Year 2024, January 2025. Average MPGe is calculated by Florida TaxWatch using data from source. EV alone average 95 MPGe and PHEV alone averaged 72 MPGe. 32 eGallons are used as the gallon equivalent for EVs and PHEVs. To convert a charge to an eGallon, the kWh is divided by the data unit 33.56. For this calculation, the total energy consumed (752.3 million kWh) was converted to 22.4 million eGallons by dividing 752.3 million by 33.56. The eGallons are then multiplied by the average MPGe of EVs and PHEVs to estimate the miles traveled: 93 MPGe X 22,417,22 eGallons = 2,084,801,728.25 miles. 33 Supra, see footnote 27.

<sup>34 2,084,728.25</sup> miles ÷ 25 miles per gallon = 83 million gallons

<sup>35 56.6</sup> cents of tax X 83.4 million gallons= \$46.6 million. Lowest tax rate applied to provide conservative estimate.

<sup>36</sup> Note, every county levies at least 6 cents from the Local Option Taxes.

## **POLICY CONSIDERATIONS**

Every state is grappling with the question of how to fairly tax motorists amid the rising popularity of EVs and PHEVs (Figure 5). Florida is one of the few states that has not implemented an alternative way to collect tax dollars from EV drivers, but other states have instituted the following policy changes:

- Increase annual vehicle registration fees or license taxes on EVs and PHEVs;
- Levy a new tax on EV charging stations; and
- Levy a new vehicle miles tax (VMT).

#### HIGHER ANNUAL VEHICLE REGISTRATION FEES OR LICENSE TAXES

Thirty-nine states have imposed additional or higher registration or license fees on EVs to bridge the loss of the highway tax funds from the gas pumps, ranging from \$50 to \$290. Thirty-nine states, 32 states also impose an additional fee for PHEVs, ranging from \$50 to \$150. At least ten states schedule periodic fee increases to help the fees keep pace with inflation. Most states deposit all the collected revenue into state transportation funds, but some distribute a portion of the revenue to local governments or other state funds. Five states use a portion of the revenues to support the construction and operation of charging stations.<sup>37</sup>

#### FIGURE 5. Most States Have Implemented Policy Changes in Response to the Growing Shares of EVs and PHEVs in the Car Market



Sources: U.S. Department of Energy, Alternative Fuels Data Center; National Conference of State Legislatures, Special Registration Fees for Electric and Hybrid Vehicles; and Tax Foundation, "Vehicle Miles Traveled Taxes Rollout across States," May 2024.

37 National Conference of State Legislatures (NCSL), Special Fees on Plug-In Hybrid and Electric Vehicles, January 2025.

#### CHALLENGES

Higher registration fees or license taxes would collect revenue from all EV and PHEV drivers living in Florida; however, it would fail to collect revenue from travelers visiting the state. In a state heavily supported by tourism, the absence of these tax dollars may be felt as more drivers continue to adopt EV and PHEV vehicles.

When considered in Florida legislation, public testimonies claimed that an increase in registration or license fees would be unreasonable. Florida already levies a sales tax on charging at public stations, and stakeholders claimed subjecting drivers to both taxes would be unfair.<sup>38</sup> Additionally, testimony suggested an upfront cost is less practical for budgeting, compared to only paying a few cents per gallon at a gas pump.<sup>39</sup> To adapt to these challenges, policymakers could add a sales tax exemption to EV charging stations and allow for incremental payment of the fee.

Higher registration fees risk altering buying and driving habits. If a driver uses their vehicle infrequently—such as a retiree who primarily uses their vehicle to buy groceries—they may feel deterred from EV cars if the registration fee seems more expensive than annual motor fuel tax collections. PHEV drivers may feel dissuaded from using gas to avoid contributing more taxes after the initial registration fee.

#### **TAXING EV CHARGING STATIONS**

Similar to taxes levied at a gas pump, some states tax EV and PHEV drivers when they recharge their vehicles at public charging stations. Unlike increased registration fees, taxing EV charging stations has the opportunity to collect revenue from drivers who do not reside in Florida. In recent years, six states levied taxes on EV charging stations, with most of the states charging about three cents per kWh.

#### CHALLENGES

Taxes levied on EV charging stations are not applied to private charging ports. Most EV drivers have charging ports at home (86.0 percent) and work (67.6 percent). Taxing all charges—regardless of location—would better resemble motor fuel taxes. Currently, two ways of collecting taxes from residential charges are possible but neither could be easily implemented:

- 1. *Submetering.* States could require chargers with submetering capabilities, which would enable separated utility listings. Such a policy, however, would pressure businesses to only produce technologically advanced chargers and require consumers to purchase them.
- 2. Automaker Data Collection. Battery software that shares with drivers the status of their charge or assists in route planning collects data that automakers can use to monitor total kWh used by the vehicle. State agencies could require charge data from automakers; however, the process of collecting data could inadvertently burden businesses or raise privacy concerns among consumers.

Setting a tax rate comparable to gas-powered vehicles can also be difficult. EVs and PHEVs have higher MPGe than gas-powered vehicles, and their MPGe are only expected to grow. Higher MPGe requires less frequent trips to charging stations, meaning to recoup similar tax dollars, the tax rate would need to be higher and adaptable to ever-changing technology. As previously mentioned, Florida collects a sales tax on public EV charging stations. If levying a charge tax, policymakers should consider whether to exempt charging stations from the existing sales tax.

<sup>38</sup> WUFT, "Florida drivers react to failed EV tax bill," April 2024. 39 Ibid.

#### VEHICLE MILES-BASED TAXES (VMT)

Vehicle Miles-Based Taxes (VMT), also referred to as Road Use Charges, collect revenue based on miles driven rather than fuel consumed. Four states currently offer voluntary VMT programs,<sup>40</sup> but the programs are only available to electric vehicles or vehicles that meet a certain fuel efficiency standard. According to the Tax Foundation, most states have researched, or even piloted, VMT in some capacity. As the nature of cars changes, VMT is a compelling option for treating all drivers the same.<sup>41</sup>

Implementation of VMT programs varies. In Hawaii, the VMT is considered an alternative to the EV state registration surcharge. Drivers can either pay \$8 per 1,000 miles, capping at \$50, or pay a \$50 flat fee. The VMT program is currently a voluntary program for EVs, but in 2033, all light-duty vehicles will be required to participate. To assess travel, the driver shares odometer readings with the state.<sup>42</sup>

Utah uses its voluntary program as a pilot, anticipating enrollment of all vehicles in the future.<sup>43</sup> Drivers pay 1.11 cents per mile, deducted from a prepaid wallet, but only pay up to \$143.25.<sup>44</sup> Per mile pay stops at about 13,000 miles. Participants can choose between a manual odometer or telematics software to report their miles. If a driver uses a manual odometer, they must send a picture to the transportation department once every three months.<sup>45</sup>

#### CHALLENGES

VMT programs can be used to ensure all residents are treated the same, but without regional or national cooperation, states risk losing transportation dollars from visitors. Visitors who may avoid the VMT include—but are not limited to—tourists, students, snowbirds, or persons traveling for business. As a state with a particularly transient population, implementing a VMT program in Florida would need heavy coordination with other states.

Other states have used odometers and telematics software to track miles. To implement a VMT program using odometers, Florida would need to determine how to collect data from drivers, keep drivers accountable and in compliance, and limit risk of drivers tampering with odometers. Telematic software is less susceptible to risks of tampering and already built into many modern cars, but drivers may perceive privacy issues if the state required access to the data.

<sup>40</sup> Oregon, Hawaii, Utah, and Virginia.

<sup>41</sup> Tax Foundation, Vehicle Miles Traveled Taxes Rollout across States, May 2024.

<sup>42</sup> Hawai'i Department of Transportation

<sup>43</sup> Utah Department of Transportation, Transportation Interim, May 2024.

<sup>44</sup> Flat maximum fee for in 2025.

<sup>45</sup> Utah Department of Transportation, Road Usage Charge.

## **PROPOSED POLICIES IN FLORIDA**

Florida has yet to implement a policy to collect tax dollars lost to the STTF from EV and PHEV use but, in recent years, state legislators filed multiple bills in attempts to address the issue. The bills never made it to the floor.

Every session since 2020, the Florida legislature reviewed a bill that would impose license taxes on EVs and PHEVs. The latest iteration of the bill—considered both in 2023 (SB 1070) and 2024 (SB 28)—would impose an annual license tax of \$200 on EVs and an annual license tax of \$50 on PHEVs, with a planned increase five years later.<sup>46</sup> In attempts to connect the cost of the fee to driving activity, the proposed license tax was based on the estimated \$190.17 in gas taxes Florida drivers pay for every 10,000 miles driven.<sup>47</sup>

Alternatively, Florida legislators considered a bill that would recoup missing highway tax revenue through redistributed tax dollars. For example, HB 107 (2024) would have required DOR to transfer a portion of the estimated sales tax collected from EV and PHEV charges to the STTF. The bill also called for a study, conducted by EDR, to estimate the financial impact of EV and PHEV use on the STTF.

During the 2025 Legislative Session, Florida legislators will consider HB 567. Similar to HB 107 (2024), HB 567 takes advantage of the 4.35 percent sales tax dollars already collected by EV and PHEV charges to provide an additional dedicated funding stream to the STTF.

During the 2025 Legislative Session, Florida legislators will: consider SB 462, SB 1662, HB 567, and HB 1397. All of these bills would distribute a portion of sales tax revenue to the STTF, providing a lump sum each month. Although it fails to capture the "fair share" sentiment once embodied by gas taxes, redistribution of the revenue collected from an existing tax is an effective way to transfer additional funds to the STTF without disrupting the status quo.

If the bills were implemented, the STTF would receive \$50.0 million from SB 462 and HB 567 and \$75 million from HB 1397 and SB 1662, annually. The tax dollars redistributed by all of these bills would fall within the estimated range of loss discussed in the prior section (see, Gas Tax Revenues).

On the day this was written, HB 567 amends 212.20(6)(d) Fla. Stat. (2024) to read as follows:

"Beginning July 1, 2025, and reassessed on or before the 25th day of each month, the department shall distribute \$4.167 million from the proceeds of the tax imposed under s. 212.05(1)(e)1.c. to the State Transportation Trust Fund to account for the impact of electric and hybrid vehicles on the state highway system."

SB 462 amends §212.20(6)(d) Fla. Stat. (2024) to read as follows:

"To account for the impact of electric and hybrid vehicles on the state highway system and the use of taxes collected from motorists when charging such vehicles, beginning July 2025, and reassessed every 5 fiscal years, **on or before the 25th day of each month** thereafter, of the portion of the proceeds of the tax imposed under s. 212.05(1) (e)1.c., **the department shall distribute \$4.167 million to the State Transportation Trust Fund.**"

HB 1397 amends §212.20(6)(d) Fla. Stat. (2024) to read as follows:

"Beginning July 1, 2025, and reassessed on or before the 25th day of each month, the department shall distribute \$6.25 million from the proceeds of the tax imposed under s. 212.05(1)(e)1.c. to the State Transportation Trust Fund to account for a portion of the impact of electric and hybrid vehicles on the state highway system."

SB 1662 amends \$212.20(6)(d) Fla. Stat. (2024) to read as follows:

"Beginning July 2025, and **on or before the 25th day of each month**, from the portion of the proceeds of the tax imposed under s. 212.05(1) (e)1.c., **the department shall distribute \$6.25 million to the State Transportation Trust Fund** to account for a portion of the impact of electric and hybrid vehicles on the State Highway System."

<sup>46</sup> Florida Senate, Senate Bill 28: License Taxes, 2024. 47 Supra, see footnote 38.

### Conclusions

Absent a VMT model, it would be difficult to establish a tax structure that treats drivers of EVs, PHEVs, and gas-powered vehicles the same. In the near future, a VMT model is unlikely to gain traction. Not only would policymakers have difficulty collecting taxes from travelers, which is especially important in a tourist-heavy state, but they would also face difficulty receiving buy-in from constituents due to privacy concerns.

None of the policies can easily collect taxes or fees from all EV and PHEV drivers. Charges at private residences cannot be separated from other charges on a utility bill without expensive submetering equipment or extensive collaboration from automakers, limiting the scope with which tax redistribution or EV charging taxes could be applied. VMT, registration fees, and license taxes can be imposed on all EV and PHEV drivers registered in Florida, but neither option applies to visiting vehicles.

While today's challenge to a fair share system is collecting taxes from all EV and PHEV drivers, tomorrow's will be collecting enough taxes as technology continues to advance. By 2045, EVs are expected to achieve up to 81 percent improvement in fuel economy and PHEVs are expected to achieve up to 96 percent. As MPGe continues to rise, trips to fueling stations are projected to become less frequent. Unless the state adopts a VMT program, rates will need to be consistently re-evaluated and raised to ensure enough dollars are collected, while careful not to overburden drivers of older vehicles.

**IN THE SHORT TERM, DOING ANYTHING TO COLLECT TAXES OR FEES FROM EV AND PHEV OWNERS IS BETTER THAN DOING NOTHING.** Given the legislature's aversion to passing a new tax, or doing anything that gives the appearance of increasing taxes, Florida TaxWatch considers the monthly redistribution of sales tax revenue to the STTF, as proposed in current legislation, to be a responsible first step.

IN THE LONG TERM, POLICYMAKERS WILL NEED TO EXPLORE HOW TECHNOLOGY, BUSINESS PARTNERSHIPS, OR INTERSTATE COALITIONS CAN SUPPORT A FAIR SHARE TAX MODEL. Doing so would make the following options possible:

- *Combination of Registration Fees and EV Taxes:* To collect tax dollars from both residents and travelers, policymakers could design a tax structure that applies higher registration fees to Florida EV and PHEV drivers and EV charging station taxes on travelers. With the help of technology, EV charging stations could exempt residents from taxes by registering the zip code on their payment method or driver's license
- Automaker Data Collection: Automakers of EVs and PHEVs can monitor battery software to collect charging data and likely where charges occur. If shared with the government, a standard tax per kWh could be levied, similar to a tax per gallon; however, building such a tax structure would require safeguards to protect consumer privacy and workshops with businesses to determine what is possible without being burdensome.
- *Interstate VMT Program:* Although a statewide VMT program is possible, it is unlikely to capture tax dollars from travelers unless the VMT program is run in partnership with other states. As the federal government and state governments consider how to collect their taxes, the state should join discussions about potential partnerships. Additionally, research is needed to determine how such a program could be developed in a way that protects privacy and limits infrastructure costs.

### **Recommendations**

- 1. Implement legislation that redistributes the sales tax from EV charges with a sunset date, providing the STTF with additional funds until a sustainable, long-term solution is developed.
- 2. Analyze the fiscal impact of imposing registration fees and EV taxes on charging stations, determining if a combined approach is possible.
- 3. Host workshops with automakers to determine what data is available and how it can be used to create a fairer tax code.

#### ABOUT FLORIDA TAXWATCH

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