Maryland Energy Administration

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor
Mary Beth Tung, Director

RE: Report Required by HB 44/Ch. 670, Sec. 4, 2021 (MSAR # 13248)
December 22, 2021

The Honorable Delores G. Kelly
3 East Miller Senate Office Building
11 Bladen Street
Annapolis, MD 21401

The Honorable Kumar P. Barve
251 Taylor House Office Building
6 Bladen Street
Annapolis, MD 21401

Chairpersons;

Please find attached the Report to the Senate Finance Committee and the House Environment and Transportation Committee in Accordance with House Bill 44, Chapter 670, Section 4 of the Session Laws of Maryland 2021. The report provides the fiscal impact of zero emission vehicles registered in the State on the Transportation Trust Fund, measures to reduce the impact of zero emission vehicles on the Transportation Trust Fund, and a survey of measures enacted by other states or jurisdictions.

As required, five color hard copies will be sent to the DLS Library.

Sincerely,

DocuSigned by:
Mary Beth Tung
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12/22/2021

Mary Beth Tung, Ph.D., Esq.
Director

cc: President Bill Ferguson
Speaker Adrienne A. Jones
Sarah Albert, Department of Legislative Services (5 copies)

Maryland Energy Administration

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A Report to the Senate Finance Committee and the House Environment and Transportation Committee in Accordance with House Bill 44, Chapter 670, Section 4 of the Session Laws of Maryland 2021 (MSAR # 13248)
December 22, 2021

Introduction

Maryland has an ambitious target of 300,000 Zero-Emission Vehicles (ZEVs) by 2025. Qualified ZEVs include Battery Electric Vehicles (BEV), Plug-in Hybrid Electric Vehicles (PHEV), and fuel cell electric vehicles (FCEV). This policy is designed to help the state achieve its climate change goal of reducing greenhouse gas emissions by nearly 40% from 2006 levels by 2030.[1] However, the proliferation or adoption of ZEVs could have effects on the Transportation Trust Fund (TTF). The magnitude of this impact is a concern for policymakers as the state relies on fuel tax revenues to fund transportation infrastructure. In this light, state lawmakers have requested through the Clean Cars Act that the Maryland Energy Administration (MEA) submit a report in consultation with the Maryland Department of Transportation (MDOT) that estimates:

I. The fiscal impact of zero-emission vehicles registered in the State on the TTF.

II. Measures to reduce the impact of zero-emission vehicles on the TTF; and A survey of measures enacted by other states or jurisdictions.[2]

Maryland has 32,373 miles of federal, state, county, and municipal, rural, and urban roads. It takes a significant amount of financial resources to build, operate and maintain the state's road network.[3] The TTF is used to meet the state's transportation service and infrastructure needs. It comprises revenue from different sources, including fuel tax revenue, registration fees, operations revenue, titling taxes, and federal aid. In FY20, the revenue collected for the TTF is estimated to be over $5 billion. As of August 2021, there were 37,432 registered BEVs and PHEVs in Maryland, making up less than 1% of the total registered vehicles in the state.[4] Approximately 5.2 million vehicles were registered in Maryland at the end of FY21.[5] Large-scale adoption of electric vehicles (EVs) could adversely affect revenue generation

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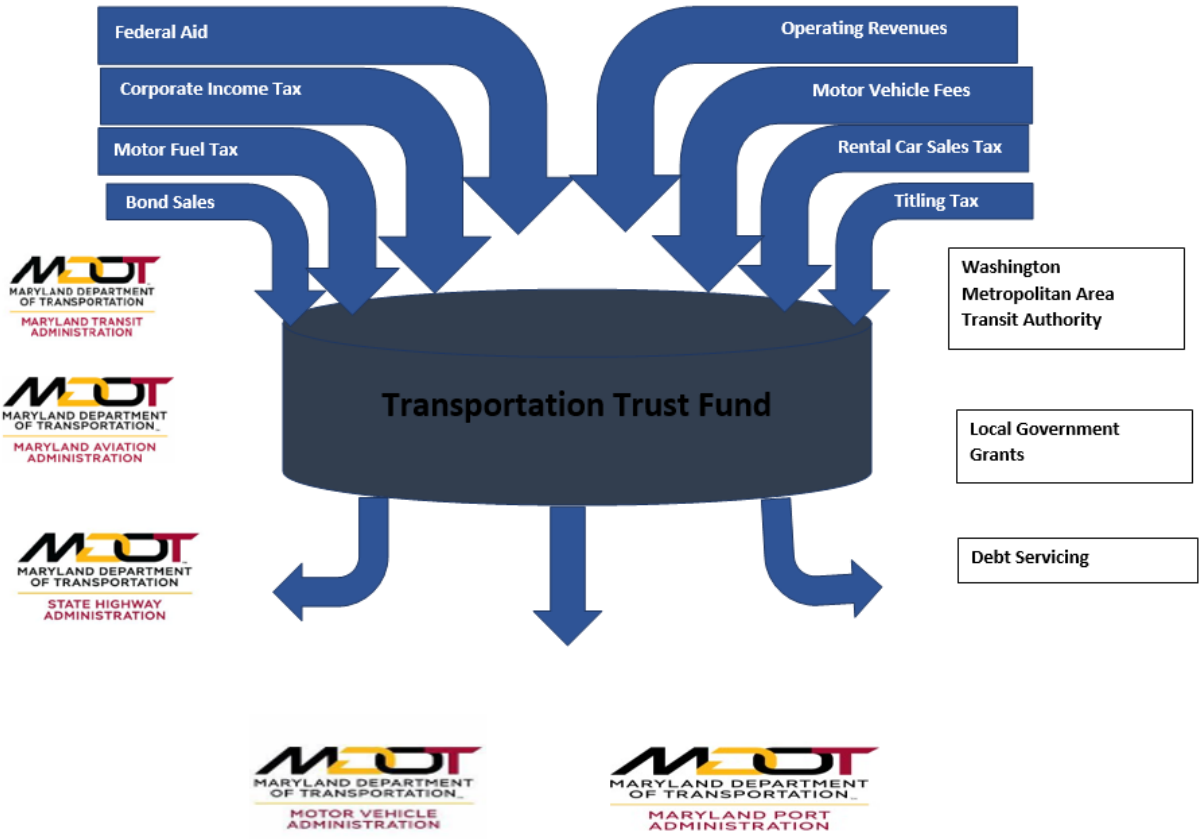
[1] Maryland Greenhouse Gas Emissions Reduction Act SB323 mgaleg.maryland.gov/2016RS/Chapters_noln/CH_11_sb0323t.pdf
[2] Maryland Clean Cars Act HB44 mgaleg.maryland.gov/2021RS/Chapters_noln/CH_670_hb0044e.pdf
[3] U.S. Department of Transportation: Federal Highway Administration. 2020. Highway Statistics 2019: Public Road Length - 2018, Miles By Ownership, Table HM-10. fhwa.dot.gov/policyinformation/statistics/2018/hm10.cfm.
[4]MDOT/ Maryland Motor Vehicle Administration, 2021, MDOT/MVA Electric and Plug-in Hybrid Vehicle Registrations by County as of each month end from July 2020 to August 2021, retrieved from: opendata.maryland.gov/
[5] Motor Vehicle Administration, 2021, MVA VEHICLE REGISTRATION by COUNTY FY 2010 to FY 2021, retrieved from: opendata.maryland.gov/

in the state, as owners of EVs do not pay any motor fuel taxes as owners of internal combustion vehicles do.

This report estimates the fiscal impact of ZEV adoption in the state, reviews measures to reduce the potential effects of ZEV adoption, and surveys measures taken by other states across the country.

Overview of the TTF

The TTF was created in 1971 to support transportation needs in Maryland. Its revenue sources include motor fuel tax, rental car sales tax, titling tax, corporate income tax, federal aid, motor vehicles fees (registrations, licenses, and other fees), operating revenue, and bond sales. The Transportation Infrastructure Investment Act of 2013 increased and expanded the TTF by indexing the motor fuel tax and MDOT Maryland Transportation Authority (MDTA) passenger fares to the consumer price index and placing restrictions on the transfer of the TTF to the general fund.[6] All the activities of MDOT are funded using the TTF, including debt service, maintenance, operations, administration and capital projects. Some capital program funds are paid to the Washington Metropolitan Area Transit Authority and as grants to local jurisdictions. Unexpended funds from the TTF are not remitted to the general fund, but are carried over to the following year. An illustration of what goes into the TTF and its different applications is shown below:



[6] Transportation Infrastructure Investment Act of 2013, HB1515 of 2013, Retrieved from: mgaleg.maryland.gov/2013RS/Chapters_noln/CH_429_hb1515t.pdf

Figure 1: Components and applications of the TTF.

The size of components of the TTF over the last six years is shown in the table below. In FY20, the gross revenue coming into the TTF was approximately $5.5 billion. Motor fuel tax made up about 20% of the TTF in FY20, amounting to about $1.1 billion. Between FY15 and FY20, motor fuel tax made up between 20% and 23% of the TTF.[7] It was the highest source of transportation revenue between FY15 and FY19, only surpassed by federal aid in FY20. A breakdown of the share of each component of the TTF in FY20 is shown in figure 2 below:

GROSS REVENUES ($MM)	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Titling Tax	796	860	886	869	917	847
Motor Fuel Tax	924	1,018	1,079	1,084	1,140	1,076
Corporate Income Tax	166	187	146	151	190	194
Motor Vehicle Administration (MVA) Fees						
Registrations	376	381	389	390	403	367
Miscellaneous Motor Vehicle Fees	290	296	303	285	296	257
Decals & Rental Car Sales Tax	31	31	32	32	34	32
Total MVA Fees	697	708	724	707	733	656
OPERATING REVENUE						
Maryland Port Administration	50	50	49	52	55	55
Maryland Transit Administration	142	157	149	151	140	108

[7] Information obtained from MDOT

Maryland Aviation Administration	222	230	243	257	258	231
Total Operating Revenues	414	437	441	460	453	394
Other Revenues	100	263	83	141	(34)	266
Federal Aid	832	810	952	982	943	1,474
Bond Sales & Premium	449	325	723	646	689	552
TOTAL SOURCES OF FUNDS	**4,378**	**4,608**	**5,034**	**5,040**	**5,031**	**5,459**

Table 1 TTF FY 2015 to FY 2020 (Data provided by MDOT)

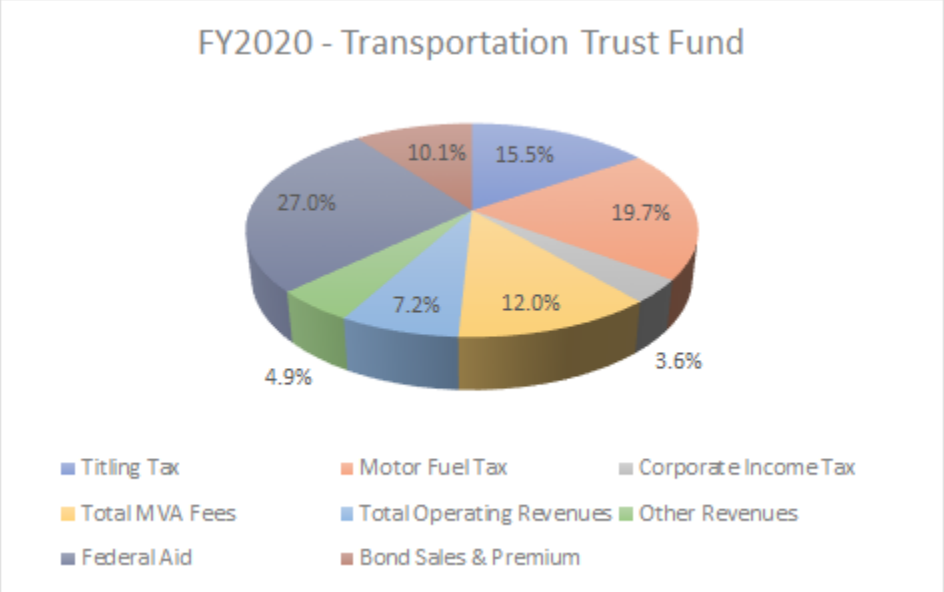


Figure 2: Share of components in TTF

As ZEVs continue to gain market share, it would result in revenue losses from motor fuel tax not collected at the point of sale. The following section reviews the ZEV trend over the last few years and its share in the transportation sector in Maryland.

EV trend

The number of registered EVs in Maryland has experienced significant growth over the last few years, rising from 609 at the end of FY12 to 34,841 by the end of FY21. As of August 2021, the number of EVs registered in Maryland totals 37,432.[8] Figure 4 below shows the growth of EVs since FY12.

Even though ZEVs have experienced significant growth, they still make up a small share of the total number of registered vehicles in Maryland. Figure 5 shows the share of EVs in relation to all registered vehicles in Maryland. Electric vehicles rose from 0.1% of the total registered vehicles in FY12 to 0.69% in FY21. BEVs make up a larger proportion of ZEVs, making up 0.42% of total vehicles compared to 0.27% from PHEVs.

As the share of ZEVs continues to grow, fuel tax receipts will continue to decline. These funds are a major component of the TTF. The next section estimates the loss in revenue from the adoption of ZEVs.

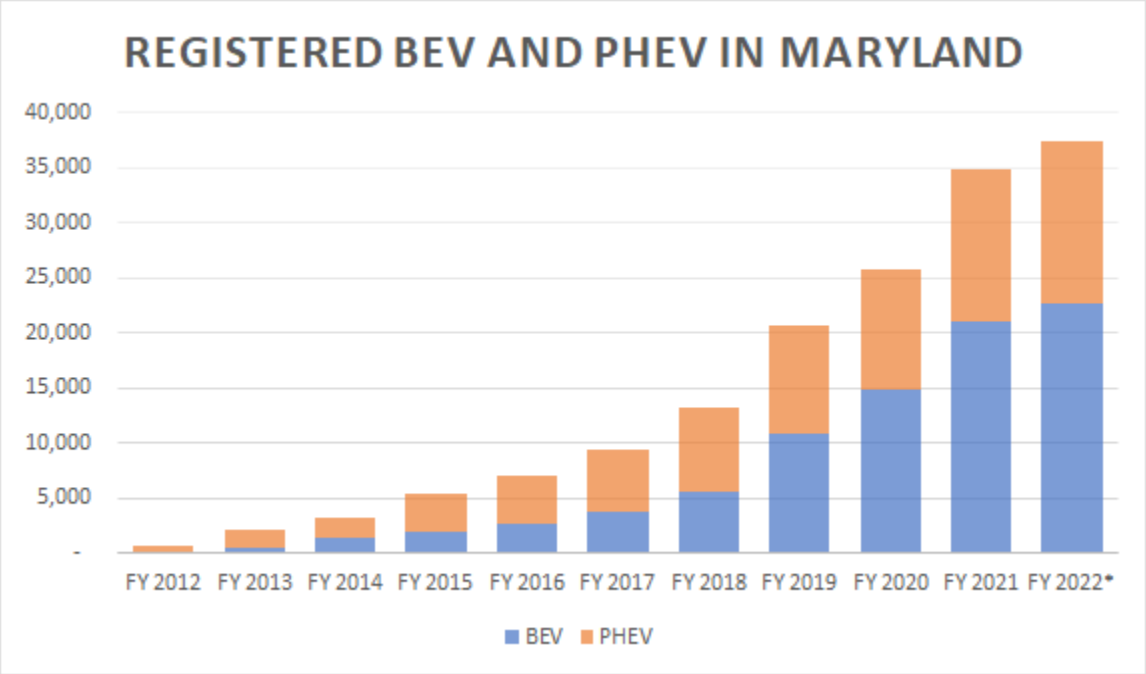


Figure 3 Registered BEV and PHEV in Maryland

[8] Ibid footnote 4

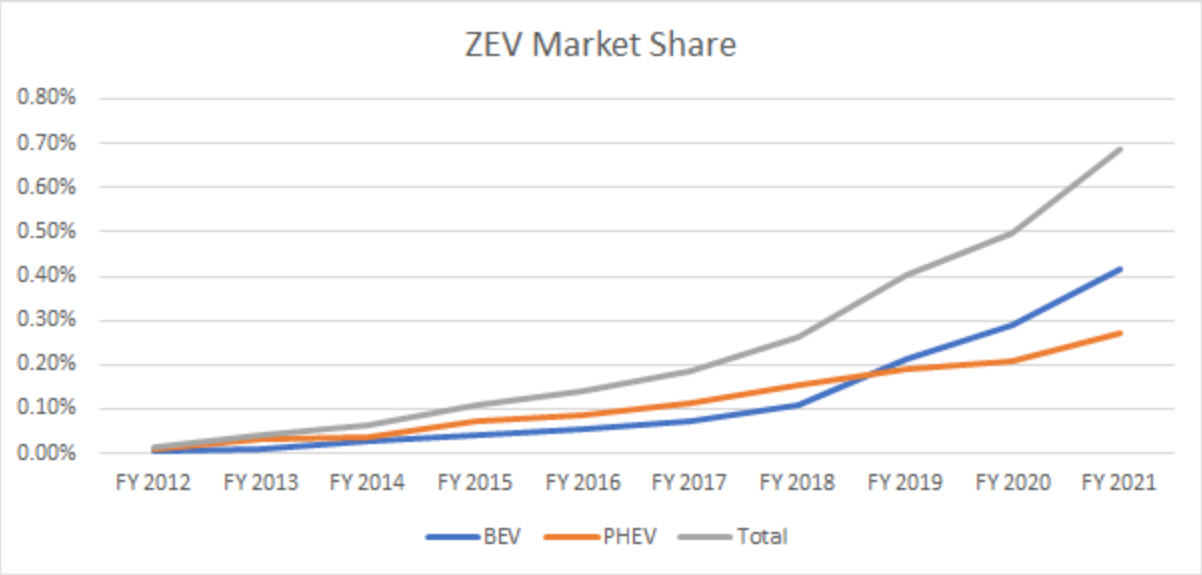


Figure 4 ZEV Market Share

Data Collection

Data collected for this analysis include

- BEV and PHEV registration data,
- State fuel tax per gallon,
- Average fuel economy of vehicles in the US, and
- The average mileage of EVs in Maryland.

Data on the EV registration was obtained from MDOT Motor Vehicle Administration (MVA) information on the Maryland Open Data Portal. At the end of FY21, there were 21,076 BEVs and 13,765 PHEVs in Maryland. State fuel tax for gasoline is 36.1 cents per gallon and for diesel is 36.85 cents per gallon.[9] The Environmental Protection Agency (EPA) estimated the average real-world fuel economy for all new vehicles to be 24.9 miles per gallon (mpg) in 2019, down from 25.1 mpg in 2018. The fuel economy has increased by 29% or 5.6 mpg since 2004, an average annual increase of 0.373 mpg. The real-world fuel economy for sedans is 30.9 mpg. Since most EVs in Maryland are sedans, the fuel economy for sedans is used for this analysis. Using the annual increase, the average fuel economy for 2021 is estimated to be approximately 31.65 mpg.[10] PHEVs use 30- 60% less petroleum than conventional vehicles.[11] For this report, it is assumed that the average fuel economy of a PHEV is twice that of an average gasoline vehicle, which is 63.29 mpg in 2021. The average mileage for EVs is based on the 2017 National Household Travel Survey. The average annual mileage for each EV in Maryland is 12,693.88 miles.[12]

[9] marylandtaxes.gov/forms/compliance_forms/MFT_RatesPerGallon.pdf
[10] epa.gov/automotive-trends/highlights-automotive-trends-report
[11] Plug in fuel economy. fueleconomy.gov/feg/phevtech.shtml
[12] U.S. Department of Transportation, Federal Highway Administration . 2017 National Household Travel Survey. nhts.ornl.gov/

Fiscal Effect of ZEV Adoption

To estimate the revenue losses from the adoption of ZEVs, we assume that all BEVs replaced gasoline vehicles in the state. To estimate the annual loss per EV, the following formula is used:

$$\frac{average\ annual\ miles\ traveled\ per\ EV}{average\ vehicle\ MPG} \times State\ fuel\ tax\ per\ gallon\ of\ gasoline$$

Equation 1

Revenue Losses from ZEVs

Using equation 1, the annual revenue loss from a BEV is (12,693.88/31.65) *0.361 = $144.8. At the end of FY21, the total annual revenue loss from 21,076 BEV results in about $3.05 million. Using the same equation for PHEV results in a total annual loss per vehicle of $72.4, and a total annual revenue loss of approximately $1 million. That gives a total annual revenue loss of about $4 million.

Depending on the assumption made for average gasoline fuel economy, estimated revenue loss could change. The figure below shows the estimated revenue loss at different average mpg. Using an average fuel economy of 20 mpg, the total annual revenue loss for EVs will be $6.4 million and at 35 mpg, the total annual revenue loss for EVs is $3.7 million.

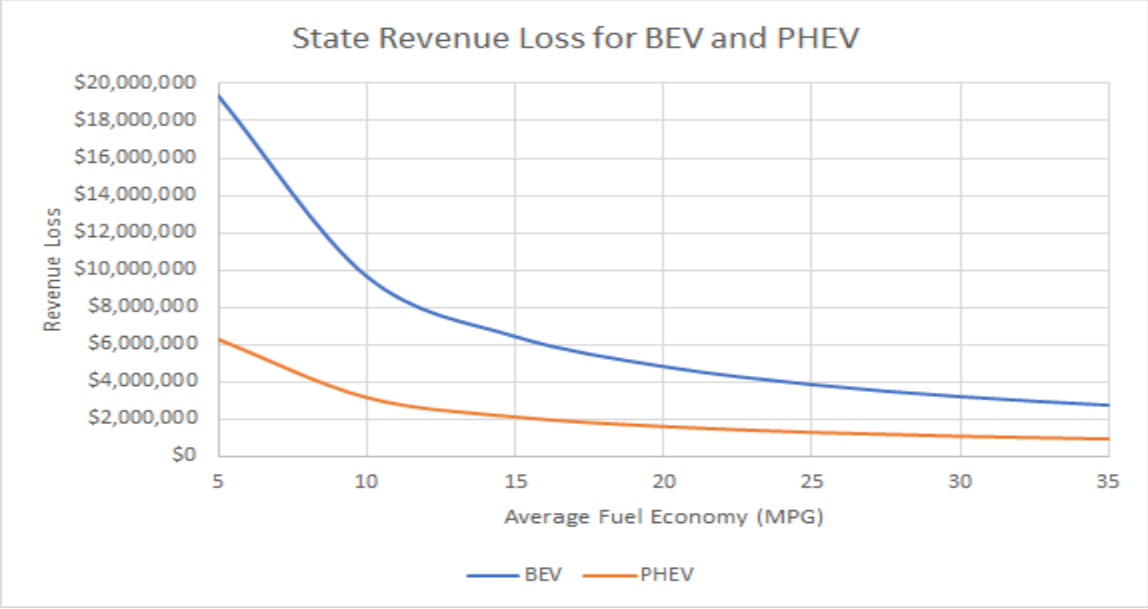


Figure 5 State Revenue Losses from BEV and PHEV

To project possible future fiscal impacts of ZEVs, we compare two scenarios. The first scenario is the baseline scenario, which utilizes the average growth rate of BEV and PHEV between FY16 and FY21. This results in an average annual growth rate of 53% for BEV and 26% for PHEV, resulting in 115,577 BEVs and 34,970 PHEVs by FY25. The second scenario is based on the Maryland ZEV target of 300,000

EVs by 2025, assuming 200,000 BEVs and 100,000 PHEVs. The projected growth in EVs from FY21 to FY25 from each of the scenarios is shown in the figures below:

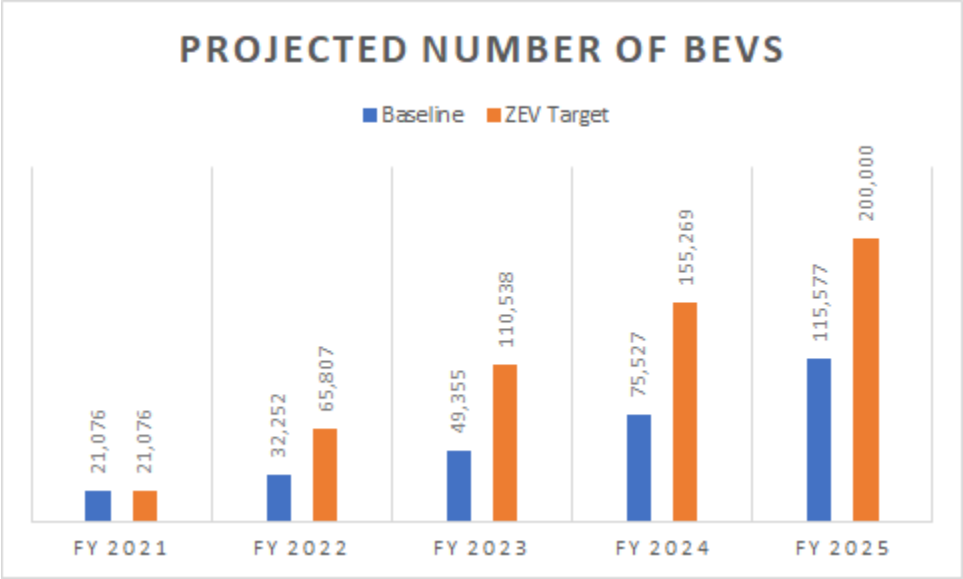


Figure 6 Projected Number of BEVs

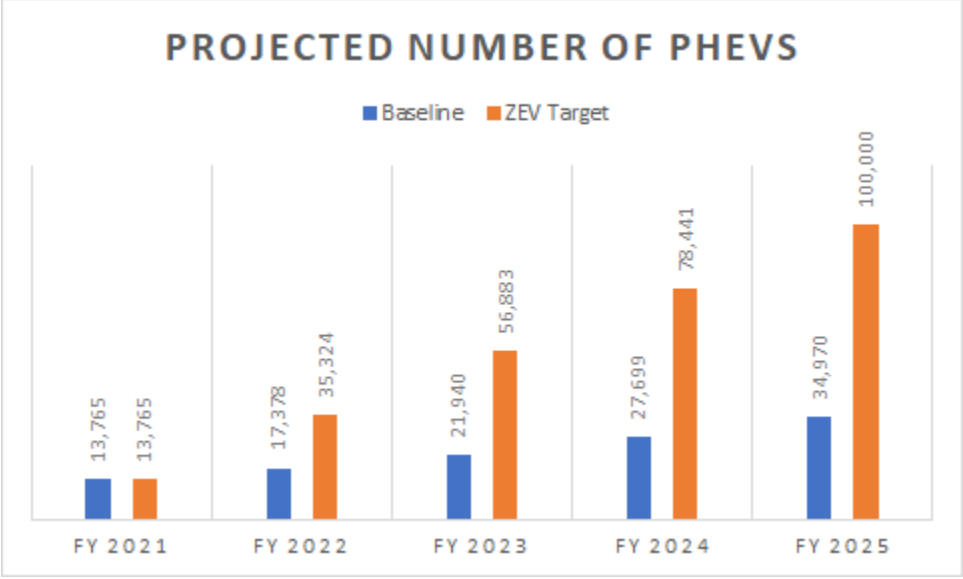


Figure 7 Projected Number of PHEVs

The projected revenue loss between FY21 and FY25 for each scenario is shown in the figure below. The same gas tax rate of 36.1 cents/ gallon is used to make projections since there has been minimal change in the gas tax rate in recent years. In the baseline scenario, total revenue loss from the adoption of EVs rose from $4 million in FY21 to $18.4 million in FY25. However, if Maryland meets its EV goals, total revenue loss will rise from $4 million in FY21 to approximately $41.5 million by FY25.

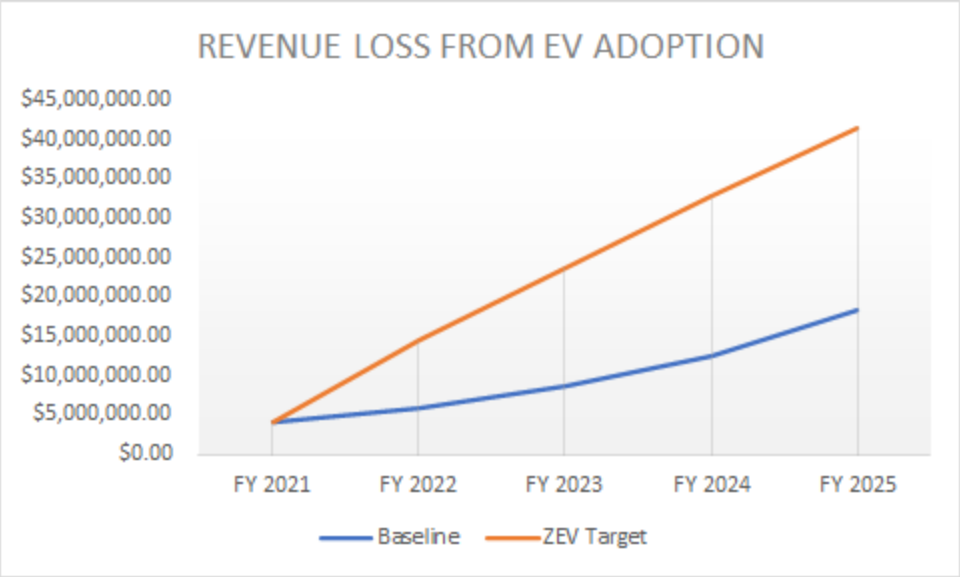


Figure 8 Projected Revenue Losses from EV adoption

Measure to reduce Impact

There are some policy options to increase transportation revenue and minimize the impact of increased proliferation of ZEV. These options include ZEV registration fees, Mileage-Based User Fees (MBUF) or Road Usage Charges (RUC), Motor Fuel Taxes, or Fuel Neutral Fees/charges. Each of these approaches has its pros and cons and is at various levels of development. Some policy options are already being implemented in the U.S., while others are still evolving or in development.

ZEV Registration Fees

All vehicles in the U.S. are required to be registered and titled. Every state has its registration fees levied annually or biennially, and registration fees could vary widely across states. In Maryland, registration fees account for between 8% of highway revenues.[13] As EVs gain market share, one approach to address the potential shortfall in fuel tax revenue is to levy specific registration fees for EVs. EV registration fees do not account for vehicle mileage or usage, and the costs are upfront. This has the potential to conflict with the overall policy goal of the state to encourage EV adoption since EV owners have to pay more upfront to own a ZEV. Some of the revenue from EV registration can be utilized toward incentivizing ZEVs and corresponding infrastructure to mitigate this.

Twenty-eight (28) states have set registration fees specifically for EVs, in addition to the standard vehicle registration fees. These fees range from $50 in Colorado to above $200 per vehicle in Washington State and Georgia. Of the 28 states with EV registration fees, 14 have a special lower rate for PHEVs. This is presumably because PHEVs pay some gas taxes when the vehicle exceeds its electric range. Revenue

[13] Information provided by MDOT

from EV registration fees often goes into the state's transportation fund. In some states, such as Alabama and Colorado, a portion of the EV fees is used to support EV infrastructure. The figure below shows EV registration fees across the U.S. The 14 states with different PHEV fees include Alabama, Arkansas, Idaho, Indiana, Iowa, Kansas, Michigan, Mississippi, Missouri, North Dakota, Ohio, South Carolina, Utah, and Washington State. A few states such as California, Utah, and Michigan have additional EV registration fees that grow over time and are tied to factors such as inflation and the consumer price index. A summary of the EV registration fees for each state and their application is shown in Appendix A.

Based on our analysis above, the average revenue lost per BEV annually between FY21 and FY 25 is $141.50, while an average of $70.75 is lost per year for PHEV in the same period. This means that setting additional registration EV fees in these amounts could be sufficient to overcome revenue loss from EV adoption for one year. However, it is critical to consider the impact of the policy decision on the state's overall EV adoption goals as it could discourage citizen purchases of EVs when the state has an aspirational goal of 300,000 EVs target by FY25. Figure 10 shows the revenue lost per EV each fiscal year.

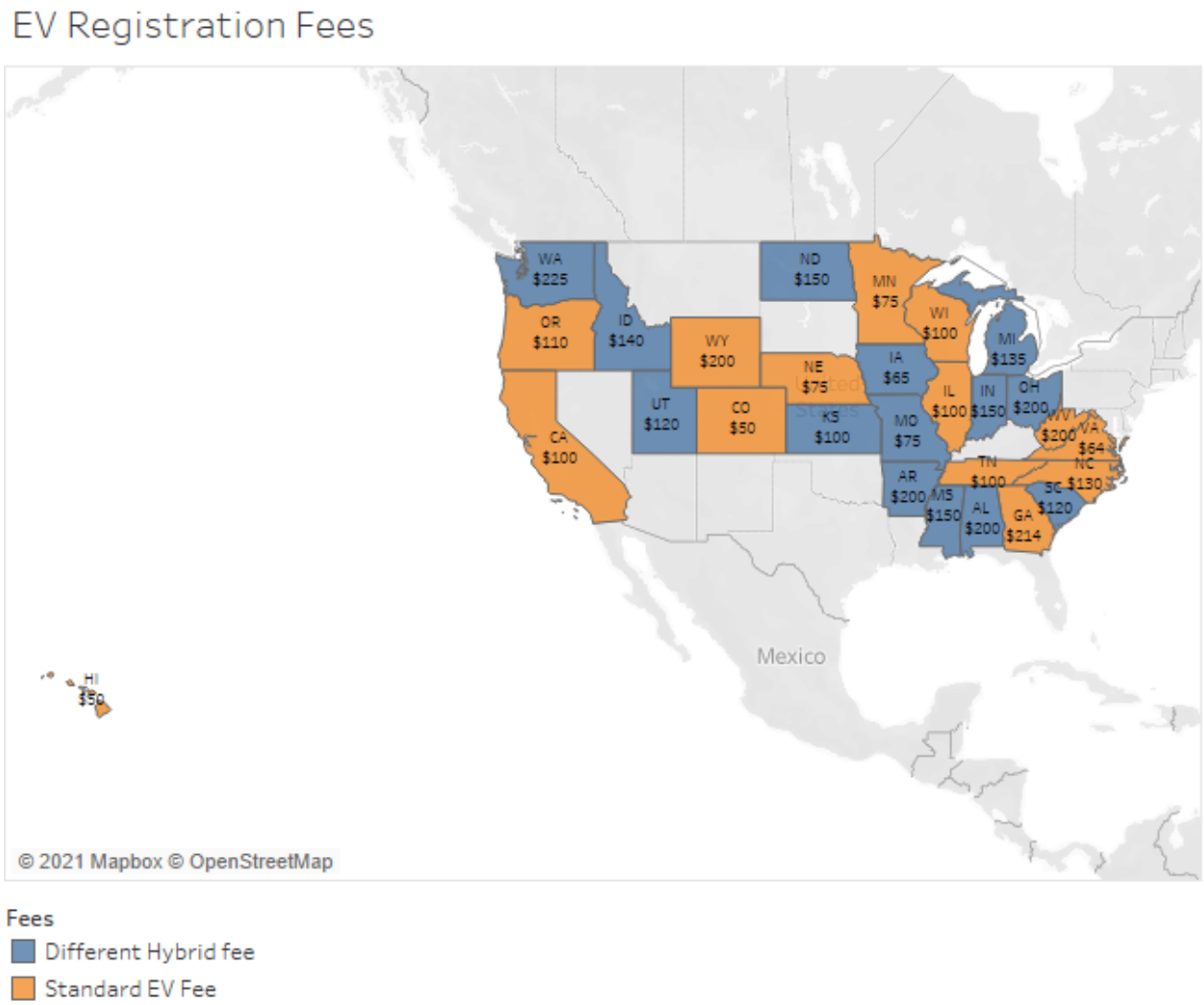


Figure 9 Additional EV registration fees per state

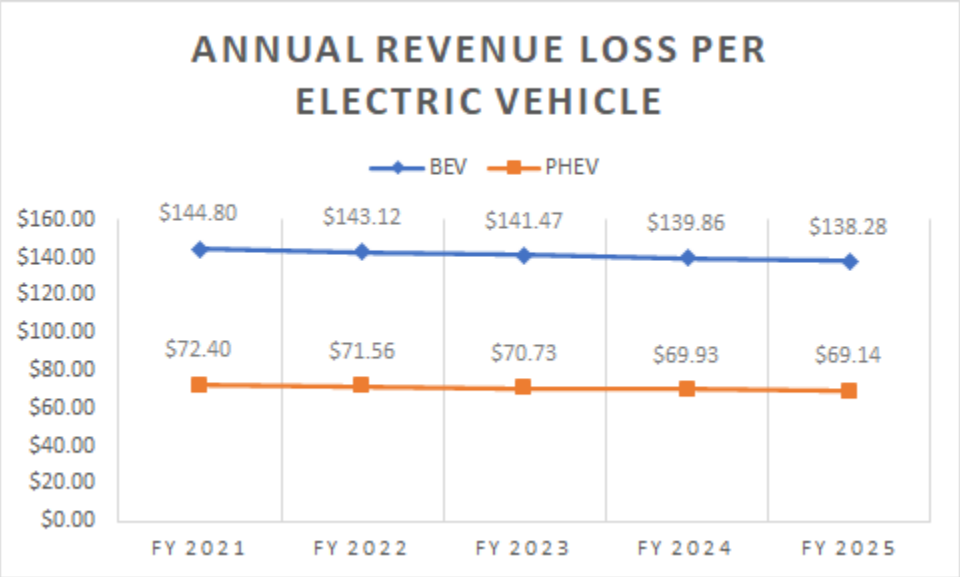


Figure 10 Annual Revenue Loss per Electric Vehicle

Mileage-Based User Fees or Road Usage Charge

Another approach to address dwindling gas tax revenue is the RUC. It is also known as vehicle miles traveled or MBUFs. These fees are based on the actual use of the roadways instead of the gallons of fuel consumed. Several states have considered RUC legislation, with at least seven states, namely Maine, Nevada, New Mexico, Oregon, Utah, Virginia, and Washington State enacting new laws for RUCs.

In addition to this, several states have carried out studies or pilot programs to test and evaluate the feasibility of RUCs. Some of these studies and pilot programs are supported by the federal government's Surface Transportation System Funding Alternatives (STSFA) grant program. So far, at least 11 states have received STSFA awards to study alternative revenue mechanisms, including Missouri, Washington, Oregon, New Hampshire, Minnesota, and Hawaii.

In 2015, Oregon launched an RUC pilot program named OreGo. Since then, the program has been expanded to remove the cap on the number of participating vehicles and increase the minimum mpg of the vehicles that can participate to 20 mpg. Under OreGo, eligible vehicles pay the base registration fee of $43, and an RUC charge of 1.8 cents per mile. Vehicle owners can opt out of EV registration fees and pay an RUC instead.[14] An RUC of 1.5 cents per mile is set in Utah until the total matches the EV registration fee ($120 in 2021).[15]

[14] ROAD USER FEE TASK FORCE Report to the Oregon Legislative Assembly, 2021, oregon.gov/odot/About/GR/RUFTF_REPORT_2021.pdf
[15] roadusagecharge.utah.gov/

In 2019, Maine enacted a law that established a commission to study alternative funding mechanisms for state transportation infrastructure.[16] Nevada passed a law that required the state's Department of Motor Vehicles to conduct a pilot program to gather data on the vehicle miles traveled annually for vehicles registered in this state. This pilot program seeks to provide information to further understanding of basing revenue collection on the annual vehicle miles traveled by each vehicle.[17] New Mexico enacted a law requesting the Department of Transportation to actively participate in the western road usage consortium regional system definition and pilot planning project and propose legislation to implement a mileage-based user fee.[18] Virginia enacted a law requiring the Joint Legislative Audit and Review Commission to study the adequacy of fees and taxes used for highway funding and identify the feasibility of alternative funding sources such as the use of mileage-based user fees.[19] In Washington State, a bill designed to establish road use charges failed to pass.[20] Washington State enacted a law, which states that once a road use charge is established in the state and 75% of registered vehicles are participating, then a goal is established for the state that all vehicles of the model year 2030 or later, sold, purchased, or registered in Washington State be EVs.[21] On a national level, the infrastructure law directs the U.S. Department of Transportation (DOT) Secretary, in coordination with the U.S. Secretary of the Treasury, to establish a pilot program to demonstrate a national motor vehicle per-mile user fee.

Fuel Neutral Fees or Taxes

Another alternative approach to revenue generation is collecting revenue based on the fuel consumption of the ZEV vehicles. In the case of EVs, this is based on the electricity consumed by the vehicle. In this approach, rates are set for charging vehicles similar to the gas tax rate for gasoline vehicles.

This approach is still in its infancy, but a few states have presented legislation to include an electric fuel tax. A bill proposed in the Minnesota assembly calls for an electric fuel tax of 5.1 cents per kWh. The bill is still pending and has been carried over to the next legislative session. More studies are still required to measure usage and prevent evasion accurately. Also, since most charging occurs at home, additional technologies for submetering may need to be obtained to measure electricity consumption by EVs. This could mean additional costs to ZEV owners. It is also important to consider whether such fees should be indexed to the consumer price index, as with gas taxes in Maryland.

Policy Considerations/Conclusion

As the share of ZEVs increases in Maryland, supported by state incentives and policies, it is critical to understand the impacts on transportation revenue that fund the construction, maintenance, and repair of

[16] State of Maine Senate 129TH Legislature, HP0700 LD 945 legislature.maine.gov/legis/bills/getPDF.asp?paper=HP0700&item=4&snum=129&PID=
[17] Nevada 2019 AB483 leg.state.nv.us/App/NELIS/REL/80th2019/Bill/6933/Overview
[18] New Mexico 2019 HM077 nmlegis.gov/Sessions/19%20Regular/final/HM077.pdf
[19] Virginia 2019 HJ 581 lis.virginia.gov/cgi-bin/legp604.exe?191+sum+HJ581
[20] Washington State SB 6586 - 2019-20 apps.leg.wa.gov/billsummary/?BillNumber=6586&Year=2020&Initiative=false
[21] Washington State HB 1287 - 2021-22 app.leg.wa.gov/billsummary?BillNumber=1287&Year=2021&Initiative=false

infrastructure. Several states have implemented registration fees, road use charges, and other similar policies to compensate for lost gasoline tax revenue from the ZEV adoption.

In choosing the appropriate policy for addressing this challenge, it is important to consider the implications for each policy choice. Registration fees are upfront, could serve as a disincentive for EV adoption, and act in contradiction to the state's ZEV targets, especially if set at amounts higher than what average gasoline vehicles pay for fuel tax. Some states utilize some of the revenues from EV fees to support EV infrastructure development. Registration fees also do not consider road usage and mileage, but they are administratively easy to apply. RUC/MBUF costs are spread over time and are based on road usage, but studies will be required to understand how Maryland can implement this. Electric charging fees are also relatively new, and studies will be needed to understand how they can be implemented.

Decisions on any policy approach should consider fairness, usage and the effects on the TTF.

Appendix A

Alabama
Additional EV fees (Ala. Code § 40-12-242 /HB 2 (2019))

a. An annual license tax and registration fee of $200.00 on each BEV
b. An annual license tax and registration fee of S100.00 on each plug-in PHEV
c. Fees will increase by three dollars ($3) every four years starting July 2023.
d. Annual BEV and PHEV fees shall be reduced by the amount of any future additional annual federal surcharge or registration fee placed, but the BEV fees should not be reduced to less than $150 and PHEV fees less than $75.

EV fee Use

a. The first $150 collected from annual BEV fees and the first $75 collected from the annual license tax and registration fee on each plug-in hybrid EV shall be distributed as follows:
   I. 66.67% to the state
   Ii. 25% to counties,
   Iii. 8.33% to cities.
b. The remainder will be deposited in the Rebuild Alabama Fund and used to fund EV transportation charging infrastructure until EVs make up 4% of all motor vehicles registered excluding trailers and semi-trailers.

Arkansas (AR)
Additional EV fees (Ark. Stat. Ann. § 27-14-614 /SB 336 (2019))

a. Two hundred dollars ($200) for each EV registered
b. One hundred dollars ($100) for each hybrid vehicle registered.

EV fee Use

a. The revenues collected are special revenues and distributed to the State Highway and Transportation Department Fund.

California (CA)
Additional EV fees (Cal. Veh. Code § 9250.6/SB 1 (2017))

a. One hundred dollars ($100) annual vehicle registration fee for Zero-Emission Vehicles (ZEV)
b. The EV fee will increase by an amount equal to the increase in the consumer price index, effective January 1, 2021, and every year thereafter.

EV fee Use

a. Revenues are deposited in the Road Maintenance and Rehabilitation Account after deductions of the DMV administrative costs.

Colorado
Additional EV fees (Colo. Rev. Stat. §42-3-304(25)(a)/HB 1110 (2013).

a. Fifty dollars ($50) annual vehicle registration fee for every plug-in electric motor Vehicle.

EV fee Use

a. Thirty dollars ($30) of each fee goes towards the Highway Users Tax Fund and twenty dollars ($20) of each fee goes to the Electric Vehicle Grant Fund.

Georgia
Additional EV Fees (Ga. Code Ann. §40-2-151(19)(A)(i)/HB 170 (2015)).

a. Alternative Fuel Vehicles registration fees are adjusted each year according to a statutory formula based on the percentage increase or decrease in average motor vehicle fuel efficiency as measured by the United States Department of Energy.
b. Effective July 1, 2021, Non-commercial alternative vehicles pay an annual registration fee of $213.70 and Commercial alternative vehicles pay an annual registration fee of $320.65. ($200 base fee for non-commercial, $300 base fee for commercial vehicles)

EV fee Use

a. Revenue from EV fees will be used for ‘transportation purposes’ including roads, bridges, public transit, rails, airports, buses, seaports, and all accompanying infrastructure and services necessary to provide access to these transportation facilities, including general obligation debt and other multi-year financial obligations.

Hawaii
Additional EV Fees (Hawaii Rev. Stat. §249-31/SB 409 (2019)).

a. An annual EV registration surcharge fee of $50

EV fee Use

a. Revenue is deposited into the state highway fund

Idaho
Additional EV Fees (Idaho Code §49-457/HB 312 (2015)/ HB 20 (2017))

a. Annual registration fee of $140 for all EVs.
b. Annual registration fee of $75 for plug-in hybrid vehicles.

EV fee use

a. All fees are deposited to the highway distribution account and are distributed as follows:
   I. Forty percent (40%) is given to local units of government for the construction and maintenance of highways.
   II. Sixty percent (60%) is given to the state highway account for the construction and maintenance of state highways.

Illinois
Additional EV Fees (625 ILCS 5 3-805/SB 1939 (2019)

a. One hundred dollars ($100) EV annual fee in lieu of payment of motor fuel taxes.

EV fee use

a. $1 of the additional fees shall be deposited into the Secretary of State Special Services Fund and the remainder of the additional fees shall be deposited into the Road Fund.

Indiana
Additional EV Fees (Ind. Code Ann. § 9-18.1-5-12/HB 1002 (2017))

a. Annual fee of $150 for all-EVs.
b. Annual fee of $50 for hybrid vehicles.
c. Subject to increase every 5 years based on the same inflation index used for motor fuel tax.

EV fee use

a. Revenues deposited into the Local Road and Bridge Matching Grant Fund for road construction and maintenance.

Iowa
Additional EV Fees (SF 767 (2019))

a. Annual fee of $97 for BEVs and $48.75 for PHEVs in 2021.
b. Annual fee increases to $130 for BEVs and $65 for PHEVs in 2022.

EV fee use

a. Revenues deposited into the Road Use Tax Fund.

Kansas
Additional EV Fees (Kan. Rev. Stat. § 8-143; HB 2214 (2019))

a. An annual registration fee of $100 for all-EVs.
b. An annual registration fee of $50 for electric hybrid and plug-in electric hybrid vehicles.

EV fee use

a. Revenues are deposited into the State Highway Fund.

Michigan
Additional EV Fees (Mich. Comp. Laws Ann. §257.801(7)/ HB 4736 (2015))

a. An additional registration fee of $135.00 for EVs weighing 8,000 pounds or less, and $235.00 for a vehicle weighing more than 8,000 pounds.
b. An additional registration fee of $47.00 for hybrid EVs weighing 8,000 pounds or less, and $117.00 for a vehicle weighing more than 8,000 pounds.

EV fee use

a. Revenues are deposited into the Michigan Transportation Fund for road maintenance and the Scrap Tire Regulation Fund.

Minnesota
Additional EV Fees (Minn. Stat. Ann. §168.013/HF 3 (2017))

a. An additional annual registration fee of $75 for nonhybrid, “all-electric” vehicles.

EV fee use

a. Revenues deposited into the Highway User Tax Distribution Fund.

Mississippi
Additional EV Fees (Miss. Code Ann. §§27-19-21; 23/HB 1 (2018 First Extraordinary Session)

a. An annual fee of $150 for EVs.
b. An annual fee of $75 for hybrid vehicles.
c. Beginning July 1, 2021, fees shall be adjusted every year by increasing the tax by a percentage equal to the United States inflation rate in the preceding year.

EV fee use

a. Funds are utilized in the same way as motor fuel tax, solely for the maintenance of roads and bridges.

Missouri
Additional EV Fees (Mo. Ann. Stat. §142.869/SB 619 (1998))

a. An annual fuel decal fee of $75 for alternative-fueled passenger motor vehicles up to 18,000 lbs.
b. An annual fee of $37.50 for plug-in electric hybrid vehicles.

EV fee use

a. Revenues deposited into the State Highway Fund

Nebraska
Additional EV Fees (Neb. Rev. Stat. §60-3,191/LB 289 (2011))

a. An annual fee of $75 for alternative-fueled vehicles.

EV fee use

a. Revenues deposited into the Highway Trust Fund.

North Carolina
Additional EV Fees (N.C. Gen. Stat. §20-87(13)/SB 402 (2013)/ HB 97 (2015))

a. An annual fee of $130 for alternative-fueled vehicles.

EV fee use

a. Revenues deposited into the Highway Trust Fund.

North Dakota
Additional EV Fees (N.D. Cent. Code § 39-04-19.2/SB 2061 (2019)).

a. A road use fee of $120 for each EV registered.
b. A road use fee of $50 for each plug-in hybrid vehicle registered.
c. A road use fee of $20 for each electric motorcycle registered.

EV fee use

a. Revenues deposited into the highway tax distribution fund

Ohio
Additional EV Fees (Ohio Rev. Code § 4503.10/HB 62 (2019))

a. Registration and renewal fee of $ 200 for each EV registered.
b. Registration and renewal fee of $100 for each plug-in hybrid vehicle registered.

EV fee use

a. Fifty-five percent (55%) of that revenue to the highway operating fund for distribution.
b. Forty-five percent (45%) of that revenue to the gasoline excise tax fund and shared tpo municipalities, counties, and townships.

Oregon
Additional EV Fees (Or. Rev. Stat. § 803.422/Or. Rev. Stat. § 319.885; 890/HB 2017 (2017)

a. EV owners have the option of enrolling in the State's RUC program known as OreGo.
b. EV not registered in OreGo pay an additional registration fee of $110 while EV registered in OreGo pay only the base registration fee.

EV fee use

a. Revenue is used to build, operate and maintain transportation systems.

South Carolina
Additional EV Fees (S.C. Code Ann. §56-3-645/HB 3516 (2017))

a. EVs and hydrogen vehicles pay a biennial road use fee of $120
b. Hybrid vehicles pay a biennial road use fee of $60

EV fee use

a. All of the fees collected are credited to the Infrastructure Maintenance Trust Fund, and used for the maintenance and repair of the transportation systems.

Tennessee
Additional EV Fees (Tenn. Code Ann. §55-4-116/HB 534 (2017).

a. One hundred dollars ($100) annual registration fee for EVs

EV fee use

a. Revenue deposited into the highway fund.

Utah
Additional EV Fees (Utah Code §41-1a-1206/SB 136 (2018))

a. One hundred and twenty dollars ($120) registration fee for each EV and other alternative fuel vehicles.
b. Fifty-two dollars ($52) for plug-in hybrid motor vehicles.
c. Twenty dollars ($20) for hybrid electric motor vehicles.
d. Fees will be indexed to the consumer price index, starting January 1, 2022

e. EV owners can opt for the state's road use charge program instead of the annual registration fee.

EV fee use

a. Revenues are deposited in the Transportation Fund.

Virginia
Additional EV Fees (Va. Code §58.1-2249(b)/SB 127 (2014).

a. An annual license tax of $64 per EV/alternative fuel vehicle registered in Virginia.

EV fee use

a. Revenues deposited into the Highway Maintenance and Operating Fund.

Washington
Additional EV Fees (Wash. Rev. Code §46.17.323/HB 2042 (2019))

a. An annual registration fee of $150 per EV.
b. Seventy-five dollars ($75) transportation electrification fee for Hybrid Vehicles.

EV fee use

a. The EV registration fee is divided as follows:
   I. 70% to the motor vehicle fund
   II. 15% goes to the transportation improvement account
   III. 15% goes to the rural arterial trust account.
b. The Hybrid Vehicle Transportation Electrification fee is used for electric vehicle charging stations.

West Virginia
Additional EV Fees (W. Va. Code §17A-10-3c/SB 1006 (2017))

a. Two hundred dollars ($200) annual fee on EVs.
b. One hundred dollars ($100) annual fee on hybrid EVs.

EV fee use

a. Revenues from EV fees are deposited into the state's Transportation Fund.
b. Revenues from other alternative fuels and hybrid EVs are deposited into the State Road Fund to cover the cost of construction, maintenance, and repair of roads as well as the administrative fees incurred.

Wisconsin
Additional EV Fees (Wis. Stat. Ann. §341.25/Act 59 §1895M (2017); Act 9 § 1987 (2019))

a. One hundred dollars ($100) annual fee on EVs.
b. Seventy-five dollars ($75) annual fee on hybrid EVs.

EV fee use

a. Revenues from fees are deposited into the state's Transportation Fund.

Wyoming
Additional EV Fees (Wyo. Stat. §31-3-102(a)(xxiii)/HB 9 (2015)/ HB 2 (2016)/HB 166 (2019).

a. Two hundred dollars ($200) annual fee on plug-in EVs.

EV fee use

a. Revenues from fees are deposited into the state's highway fund.